Aquatic Resources Delineation

Hemet Tentative Tract Map

City of Hemet, Riverside County, California APN 439-23-0005

Prepared For:

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LIST OF ACRONYMS AND ABBREVIATIONS

CDFW California Department of Fish and Wildlife

CFR Code of Federal Regulations

County Riverside County
CWA Clean Water Act
CWR Clean Water Rule
DA Delineation Area
ECORP ECORP Consulting, Inc.

ESA Federal Endangered Species Act

FAC Facultative Species

FACW Facultative Wetland Species FACU Facultative Upland Species

FR Federal Register

I- Interstate

JD Jurisdictional Determination

MSHCP Western Riverside Multiple Species Habitat Conservation Plan

N/L Not Listed Plant Species

NPDES National Pollutant Discharge Elimination System
NOAA National Oceanic and Atmospheric Administration

NRCS Natural Resources Conservation Service

NWI National Wetlands Inventory
 OBL Obligate Wetland Species
 OHWM Ordinary High Water Mark
 RHA Rivers and Harbors Act of 1899
 RWQCB Regional Water Quality Control Board

ECORP Consulting, Inc. Hemet Tentative Tract Map

SAA Streambed Alteration Agreement

SR State Route

SWRCB State Water Resources Control Board

TNW Traditional Navigable Waters

UPL Upland Plant Species

USACE U.S. Army Corps of Engineers

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) conducted an aquatic resources delineation for the ±13-acre Tentative Tract Map on behalf of the Shizao Zheng located in the City of Hemet, Riverside County, California. The Delineation Area (DA) consists of a vacant parcel totaling approximately 13 acres, and situated on the northwest corner of East Menlo Avenue and Park Avenue ((Figure 1. *Delineation Area Location and Vicinity*).

The DA corresponds to a portion of the San Jacinto Landgrant (San Bernardino Base and Meridian) of the "San Jacinto" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1993). The approximate center of the DA is located at 33.759919° latitude and -116.952550° longitude within the San Jacinto Watershed (Hydrologic Unit Code #18070202, Natural Resources Conservation Service [NRCS], USGS, and U.S. Environmental Protection Agency [USEPA] 2016).

This report describes aquatic resources identified within the DA that may be regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA). The information presented in this report provides data required by the USACE Los Angeles District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). The aquatic resource boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the DA and are subject to modification following the USACE verification process.

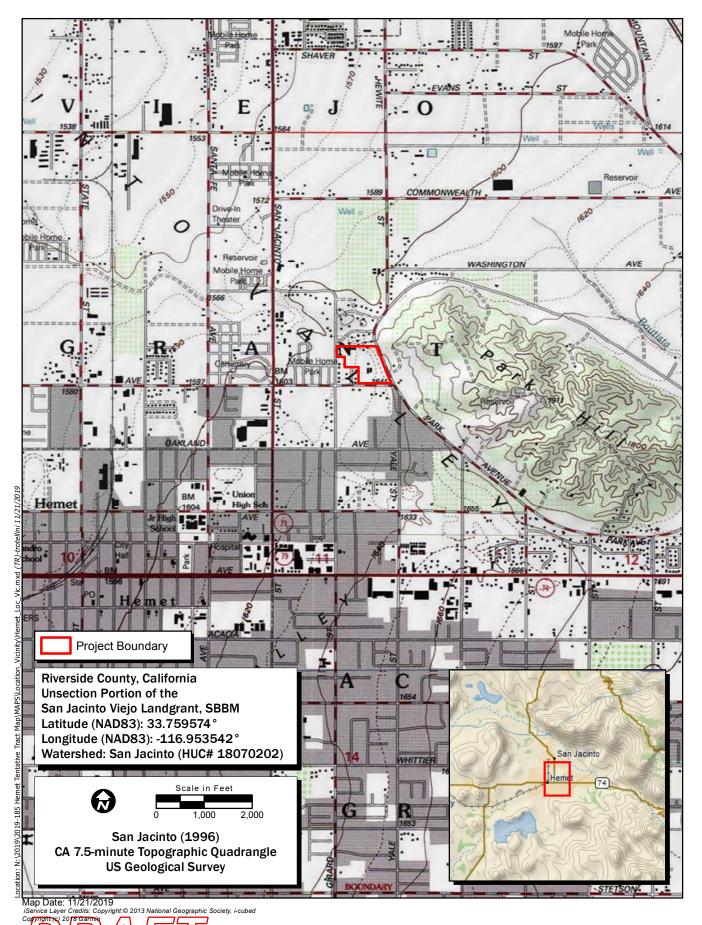


Figure 1. Project Vicinity and Location

2.0 REGULATORY SETTING

2.1 Waters of the United States

This report describes aquatic resources, including wetlands that may be regulated by USACE under Section 404 of the federal CWA. The following sections define these regulations.

2.1.1 Wetlands

Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [51 Federal Register (FR) 41250, Nov. 13, 1986, as amended at 58 FR 45036, Aug. 25, 1993]. Wetlands can be perennial or intermittent.

2.1.2 Other Waters

Other waters are nontidal, perennial, and intermittent watercourses and tributaries to such watercourses [51 FR 41250, Nov. 13, 1986, as amended at 58 FR 45036, August 25, 1993]. The limit of USACE jurisdiction for nontidal watercourses (without adjacent wetlands) is defined in 33 Code of Federal Register (CFR) 328.4(c)(1) as the "ordinary high water mark" (OHWM). The OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" approximation of the lateral limit of USACE jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

2.2 Clean Water Act

The USACE regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. "Discharges of fill material" is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR § 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetlands, over 0.5 acre of impact, may require an individual permit. Projects that only minimally affect wetlands, less than 0.5 acre of impact, may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of

the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board.

2.3 Clean Water Rule

The Clean Water Rule (CWR) was published in June 2015, but implementation of the rule was stayed until September 2018. It is currently (2018) in effect for 22 States, including California, the District of Columbia, and the U.S. territories. The CWR establishes categories of waters that are jurisdictional, waters that are excluded, and waters that require a case-specific significant nexus evaluation to determine if they are Waters of the U.S. By rule, the CWR defines Waters of the U.S. to include Traditional Navigable Waters (TNW), interstate waters, and territorial seas, impoundments of jurisdictional waters, and tributaries and adjacent (i.e. bordering, contiguous, or neighboring) waters to TNW, interstate waters, or territorial seas (USACE and USEPA 2015).

According to the CWR, neighboring is defined as waters located: within 100 feet of the OHWM of a jurisdictional feature, within the 100-year floodplain of a jurisdictional feature and within 1,500 feet of the feature, or within 1,500 feet of the high tide line of TNW, interstate water, or territorial sea. Western vernal pools in California and several other location-specific aquatic feature types are evaluated on a case-by-case basis to determine whether they have a significant nexus to TNW, interstate waters, or territorial seas (USACE and USEPA 2015).

Feature types that are categorically excluded from CWA jurisdiction include waste treatment systems, prior converted cropland, ditches with intermittent or ephemeral flow that are not relocated tributaries or excavated in a tributary, ditches that do not flow, directly or indirectly, into a jurisdictional water, artificially irrigated areas that would revert to dry land in the absence of irrigation, artificial, constructed lakes or ponds created by excavating and/or diking dry land, small ornamental waters, artificial reflecting or swimming pools created by excavating and/or diking dry land, water-filled depressions created in dry land incidental to mining or construction activities, erosional features such as gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways, and puddles (USACE and USEPA 2015).

2.4 Waters of the State

Section 401 identifies jurisdictional limits as any "surface water or groundwater, including saline waters, within the boundaries of the state." For the purposes of this delineation, the limits of SWRCB jurisdiction generally follow those of the USACE jurisdiction under Section 404.

2.5 CDFW Jurisdiction

The delineation of CDFW jurisdiction follows the guidance and definitions contained within Section 1600 of the California Fish and Game Code, which connotes jurisdiction as a "river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or

from which these resources derive benefit." Delineators also used A Review of Stream Processes and Forms in Dryland Watersheds (Vyverberg 2010), which is a science based technical reference on dryland stream forms and processes, and MESA – Mapping Episodic Stream Activity (Vyverberg and Brady 2013) to aid in determining the CDFW jurisdictional limits for the delineation. MESA is intended to assist in identification and mapping of episodic streams when water has perhaps been absent for several years. Based the aforementioned guidance and experience, the limits of CDFW jurisdiction were mapped where there appeared to be regular surface flow that met a broad definition of stream or lake, based on physical and vegetative characteristics. CDFW jurisdiction may include jurisdictional habitat (riparian habitat), functionally related swales, first-order streams (Strahler 1952), single-thread channels, compound channels, braided channels, discontinuous and distributary channels, drainage networks, and floodplains. CDFW streambed widths were mapped to the nearest foot along each channel.

2.5.1 California Fish and Game Codes

Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Streambed Alteration Agreement. Often, projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

3.0 METHODS

This aquatic resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008). The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses) and the Web Soil Survey (NRCS 2019) were used to aid in identifying hydric soils in the field. The Jepson Manual, 2nd Edition (Baldwin et al. 2012) was used for plant nomenclature and identification.

Field surveys were conducted on November 1, 2019 by ECORP biologist Scott Taylor. Mr. Taylor walked the entire DA to determine the location and extent of aquatic resources within the DA. Paired locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the

limits of the estimated aquatic resource area. Aquatic resources within the DA were recorded in the field using a post-processing capable global positioning system unit with sub-meter accuracy (Trimble GeoXT).

3.1 Routine Determinations for Wetlands: Waters of the U.S.

To be determined a wetland; the following three criteria must be met:

- A majority of dominant vegetation species are wetland-associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

3.1.1 Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each sampling point location. The "50/20 rule" was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional species that individually comprise 20 percent or more of the total cover in the stratum (USACE 1992, USACE 2008).

Dominant plant species observed at each sampling point were then classified according to their indicator status (probability of occurrence in wetlands, Table 1), *North American Digital Flora: National Wetland Plant List* (Lichvar et al. 2016). If the majority (more than than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), the site was considered to be dominated by hydrophytic vegetation.

Table 1. Classification of Wetland-Associated Plant Species ¹			
Plant Species Classification	Abbreviation	Probability of Occurring in Wetland	
Obligate	OBL	Almost always occur in wetlands	
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands	
Facultative	FAC	Occur in wetlands and non-wetlands	
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands	
Upland	UPL	Almost never occur in wetlands	
Plants That Are Not Listed	N/L	Does not occur in wetlands in any region.	
(assumed upland species)			

¹Source: Lichvar et al. 2016

In instances where indicators of hydric soil and wetland hydrology were present, but the plant community failed the dominance test, the vegetation was re-evaluated using the Prevalence Index. The Prevalence Index is a weighted-average wetland indicator status of all plant species in the sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the Prevalence Index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

3.1.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2003). Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

At each sampling point a soil pit was excavated to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each sampling point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990). Hydric soils are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. These processes and the features in the soil that develop can be identified by looking at the color and texture of the soils.

3.1.3 Hydrology

Wetlands, by definition, are seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include, but are not limited to: visual observation of saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic

invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to: drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard.

4.0 RESULTS

4.1 Existing Site Conditions

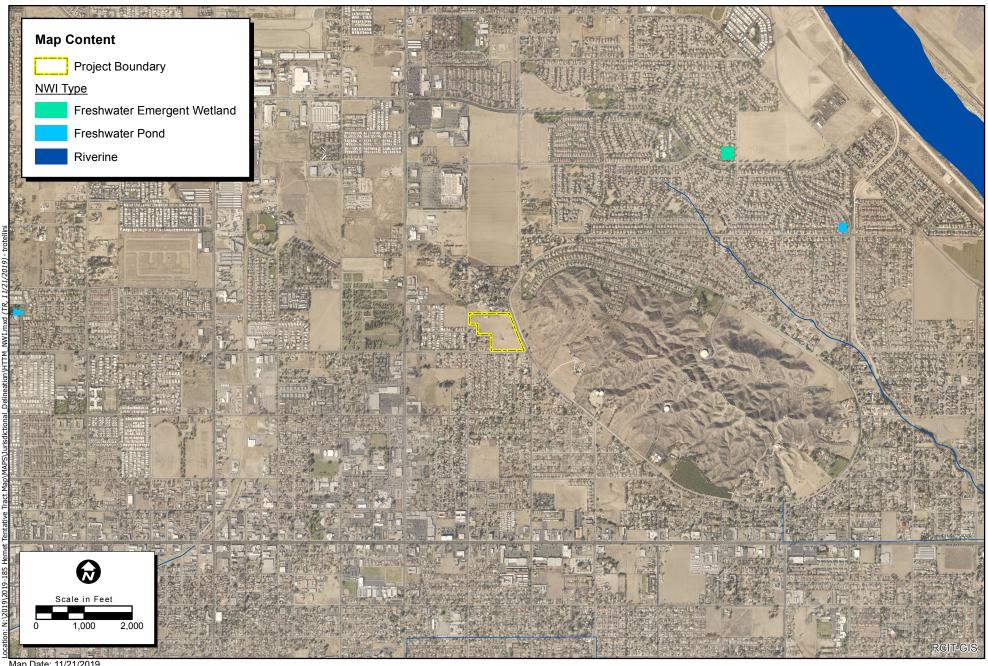
The DA is located within relatively flat terrain situated at approximately 1,620 feet above mean sea level in the South Coast Subregion of the Southwestern floristic region of California (Baldwin et. al. 2012). The average winter low temperature in the vicinity of the DA is 48°F and the average summer high temperature is 81°F. Average annual precipitation is approximately 11.7 inches, which falls as rain (National Oceanic and Atmospheric Administration [NOAA] 2019).

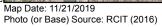
Much of the DA is considered to be developed and disturbed, but there are natural vegetation communities present mostly associated with very small pockets of native California buckwheat (*Eriogonum fasciculatum*) that are of insufficient size to be classified as a vegetation community. The other vegetation within the DA generally consists of non-native grasslands and ruderal areas containing patches of non-native eucalyptus (*Eucalyptus* sp.), pine (*Pinus* sp.) and palm (*Washingtonia* sp.) species. Non-native plant species are generally of less biological value than native plant species, to the local flora and fauna. There were no patches of riparian habitat or hydrophytic vegetation found on site. The surrounding area consists of rural-suburban residential development.

This aquatic resources delineation was conducted in the fall, outside of the blooming season for most plant species. The survey was, however, conducted at an acceptable time of the year to observe signs of wetland hydrology, and although no wetland plant species would have been in bloom at the time of the survey, most plants were identifiable to species based upon vegetative or fruit morphology.

4.1.1 National Wetlands Inventory

The National Wetland Inventory (NWI) is a publicly available national dataset that provides detailed information on the abundance, characteristics, and distribution of US wetlands (USFWS 2019). NWI includes aquatic resource features mapped using a variety of remote sensing and modeling techniques. As such, these aquatic features may or may not exist as represented. In addition, NWI data varies in detail, accuracy, and age, and is meant to be used as a tool to assist with an aquatic resource delineation but not to serve as the only source of information. Data contained within the NWI can be historical in nature at times, having been modified by recent development or by other factors. According to the NWI, there are no aquatic features mapped within the DA (Figure 2. *National Wetlands Inventory*).









4.1.2 Soils

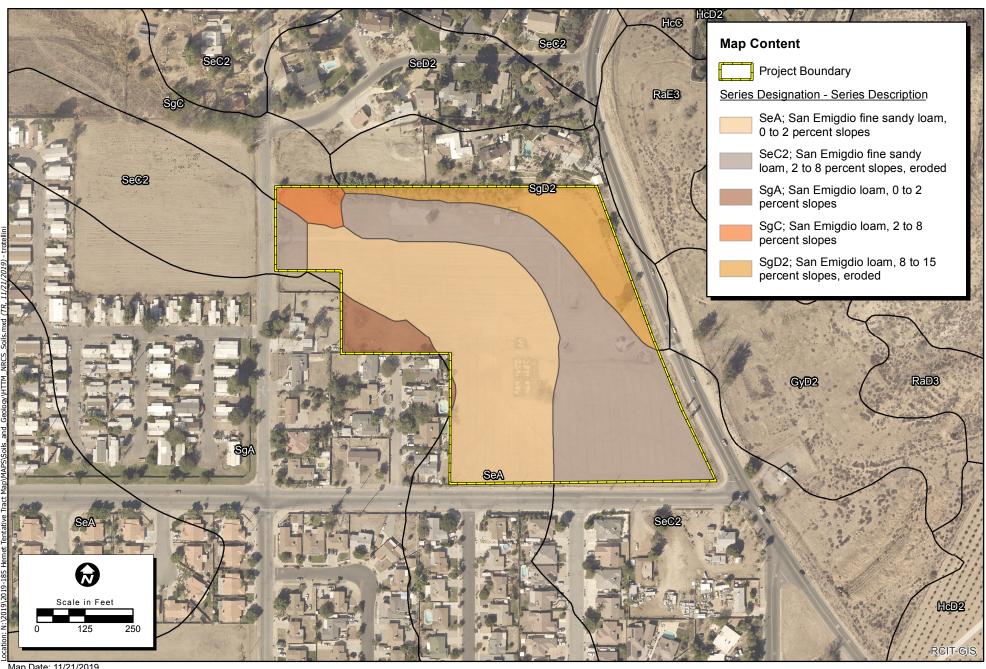
According to the Web Soil Survey (NRCS 2019), five soil units, or types, have been mapped within the DAs (Table 2. *Soils Occurring within the Delineation Area* and Figure 3. *Natural Resources Conservation Service Soil Types*). The field examination confirmed the soil mapping, where soils were studied in detail, particularly at the sample points which was taken. None of the mapped soil types are considered to be hydric soils. Soils throughout the entire site appeared to have been recently mechanically disturbed.

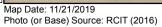
Table 2. Soils Occurring within the Delineation Area						
Code	Soil Series	Mapping Unit	NRCS Hydric/ Landform	Water Drainage	Material	Available water storage in profile
SeA	San Emigdio	fine sandy loam, 0 to 2 percent slopes, occassional frost	No	Well drained	Residuum weathered from sedimentary rock	Moderate (about 8.6 inches)
SeC2	San Emigdio	fine sandy loam, 2 to 8 percent slopes, eroded	No	Well drained	Residuum weathered from sedimentary rock	Moderate (about 8.5 inches)
SgA	San Emigdio	loam, 0 to 2 percent slopes	No	Well drained	Alluvium derived from sedimentary rock	Moderate (about 8.7 inches)
SgC	San Emigdio	loam, 2 to 8 percent slopes	No	Well drained	Residuum weathered from sedimentary rock	Moderate (about 8.5 inches)
SgD2	San Emigdio	loam, 8 to 15 percent slopes, eroded	No	Well drained	Residuum weathered from sedimentary rock	Moderate (about 8.5 inches)

4.2 Aquatic Resources

No aquatic resources were mapped on the property. A single culvert was observed which was determined tocarry runoff from a small portion of Park Avenue to the west, collected from a small outlet along the road. The area downstream of this culvert was examined for signs of OHWM, but they were found to be absent. A single sample point was taken at the topographic low point below the culvert, to confirm if wetland soils were developing and to confirm that the site's soil types were as expected.

The wetland determination data forms are included in Attachment A and a list of plant species observed within the DA is included as Attachment B. A discussion of the aquatic resources is presented below, and the aquatic resources delineation map is presented in Figure 4. *Aquatic Resources Delineation*. Representative site photographs are included as Attachment C and a site aerial photograph is included in Attachment D.











Map Date: 11/21/2019 Photo (or Base)Source: RCIT (2016)



4.2.1 Wetlands

There were no wetland features found on the site.

Sampling Point 1 was collected at the topographic low point below the one culvert on the site and was dominated by telegraph weed (*Heterotheca grandiflora*; N/L), western ragweed (*Ambrosia psilostachya*; FACU), sunflower (*Helianthus annuus*; FAC) and short-pod mustard (*Hirschfeldia incana*; N/L). The soil matrix color was 100 percent 10 YR 3/3 and did not contain any hdric soil indicators. There were also no signs present of wetland hydrology.

4.2.2 Other Waters

No other Waters of the U.S. features were recorded on site.

4.3 CDFW Jurisdiction

CDFW jurisdiction is not present on the site.

5.0 JURISDICTIONAL ASSESSMENT

No aquatic resources have been mapped within the DA. Development of the project is therefore not considered to be subject to USACE jurisdiction pursuant to Section 404 of the CWA, CDFW jurisdiction pursuant to the California Fish and Game Code, and RWQCB jurisdiction pursuant to Section 401 of the CWA.

As per Regulatory Guidance Letter 16-01, an applicant may request a PJD "in order to move ahead expeditiously to obtain a Corps permit authorization where the requestor determines that it is in his or her best interest to do so ... even where initial indications are that the aquatic resources on a parcel may not be jurisdictional" (USACE 2016b). A significant nexus evaluation is not necessary to obtain a PJD. The following information on connectivity of wetlands and other waters in the DA to TNW is provided should an Approved Jurisdictional Determination be necessary.

6.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A – Wetland Determination Data Forms - Arid West

Attachment B – Plant Species Observed Onsite

Attachment C – Representative Site Photographs

Attachment D – Project Aerial Photograph

ATTACHMENT A

Wetland Determination Data Forms - Arid West Region

WEILAND DE	IERMINA	TION DATA FORM	l – Arid West Region
			met Riverill Sampling Date 11/19
Applicant Owner _ Shizao Zhene	1		
Investigator(s):	3	Section Township R	State Sampling Point SP (
Landform (hillslope terrace etc.) Plan		Local relief iconcave	convex none; Concave Siope (%) 0-1
Subregion (LRR)	Lat 3	3.759569	Siope (%) 0-1 Long -116, 952 182 Datum, 1/AD 8
Soil Map Unit Name San Fifsdio	Fine 8	sany Loan	
Are climatic / hydrologic conditions on the site typical for			NVVI classification.
Are Vegetation, Soil, or Hydrology	significantly	disturbed A	(If no explain in Remarks)
Are Vegetation Soil or Hydrology	naturally or	chiematic 2 A	No No
SUMMARY OF FINDINGS – Attach site ma	p showing	sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	/		
Hydric Soil Present? Yes		Is the Sample	
Wetland Hydrology Present? Yes		within a Wetla	nd? Yes No
Remarks			
. *			
VEGETATION – Use scientific names of pla	nts.		*
Tree Stratum (Plot size:)	Apsolute	Dominant Indicator	Dominance Test worksheet:
1 _ N/A		Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC
2			V V
3			Total Number of Dominant Species Across All Strata (B)
4			Percent of Dominant Species
Saciina/Shrub Stratum (Plot size)	•	= Total Cover	That Are OBL, FACW or FAC (A/B)
1 N/H			Prevalence Index worksheet
2			Total % Cover ofMultiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
Herb Stratum (Plot size 100)		= Total Cover	FACU species x 4 =
1 Heterofeen extendiflore	10	Y N/1_	UPL species x 5 =
2 Anderosia esilostadaya	20.	Y FACIA	Column Totals(A)(B)
3 Heliantin annus	5	N FAC	Prevalence Index = B/A =
4 Hirschfeldia izcana	5	N N/L	Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0'
7			Morphological Adaptations' (Provide supporting
8			data in Remarks or on a separate sheet)
Woody Vine Stratym (Plot size:)	40	= Total Cover	Problematic Hydrophytic Vegetation' (Explain)
1 N/			Indicators of hydric poll and a state of
2			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
		= Total Cover	Hydrophytic
% Bare Ground in Herb Stralum 70 % Cover		ıst	Vegetation
Remarks	טי טיטניר טונ	131	Present? Yes No
		a	

_	-		
_		1	

SOIL		the absence of indicators)
Profile Description: (Describe to t	the depth needed to document the indicator or c	confirm the dosenice of moleculary
Depth Matrix	Redox Features	oc Texture Remarks
(inches) Color (moist)		Fire sendy low
D-8 104R3/3 11	00	The start to the
Na N		
		,
		
		and Grains. ² Location: PL=Pore Lining, M=Matrix.
Type C=Concentration, D=Decletio	n. RM=Reduced Matrix, CS=Covered or Coated S	Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise noted.)	1 cm Muck (A9) (LRR C)
Histosoi (A1)	Sandy Redex (S5)	2 cm Muck (A10) (LRR B)
— Histic Epipedon (A2)	Stripped Matrix (Sô) Loamy Mucky Mineral (F1)	Reduced Vertic (F13)
Black Histic (A3)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Coarry Gleyed Matrix (F3)	Other (Explain in Remarks)
Stratified Layers (Ab) (LRR C)	Redox Dark Surface (F6)	
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A	5000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Depleted Below Dark Surface (A12)	Redox Depressions (F8)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)		unless disturbed or problematic
Restrictive Layer (if present):		
1720		Hydric Soil Present? Yes No V
Depth (inches)		
/ 🗸	indicators present	
YDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one re	aguirad; check all that accly)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (62) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (82) (Nonrive	erine Oxidized Rhizospheres along Livi	ing Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (Bb)	Recent Iron Reduction in Tilled Sc	cils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imag	ery (B7) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Water-Stained Leaves (69)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Field Observations:		
	No Depth (inches).	*
Surface Hater 1 1000int	No Depth (inches)	
Product rable risson		Wetland Hydrology Present? Yes No
Saldiadalii issaiii	No V Depth (inches):	
(includes capillary fringe)	ge, monitoring well, aerial photos, previous inspec	ctions), if available
Describe Recorded Data (Stream gad	gs, monitoring non-	
Remarks		
1 1 1 1 1	221211	4
100 Indicate	ors present	×.
		· · ·

ATTACHMENT B

Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME
Ailanthus altissima	tree of Heaven*
Amaranthus palmer	Palmer's amaranth
Ambrosia psilostachya	ragweed
Amsinckia sp.	fiddleneck species
Brassica sp.	mustard species*
Datura stramonium	Jimson weed*
Eriogonum fasciculatum	California buckwheat
Erodium cicutarium	red-stemmed filaree*
Eucalyptus sp.	eucalyptus species*
Helianthus annuus	common sunflower
Heterotheca grandiflora	telegraph weed
Hirschfeldia incana	short-pod mustard*
Nicotiana glauca	tree tobacco*
Parkinsonia florida	blue palo verde
Pinus sp.	pine species*
Salsola tragus	Russian thistle*
Schinus sp.	pepper tree species*
Tamarix sp.	tamarisk species*
Tribulus terrestris	puncture vine*
Washingtonia sp.	palm species*
*Nonnative species	

ATTACHMENT C

Representative Site Photographs



Photo 1: Western portion of site, facing southeast.



Photo 2: Southeastern portion of site, facing northwest.



Photo 3: Culvert on eastern edge of project site.



Photo 4: Small stand of disturbed California buckwheat found on eastern portion of project site.



Photo 5: Northeastern portion of site, facing southwest.



Photo 6: Northwestern portion of site, facing southeast.



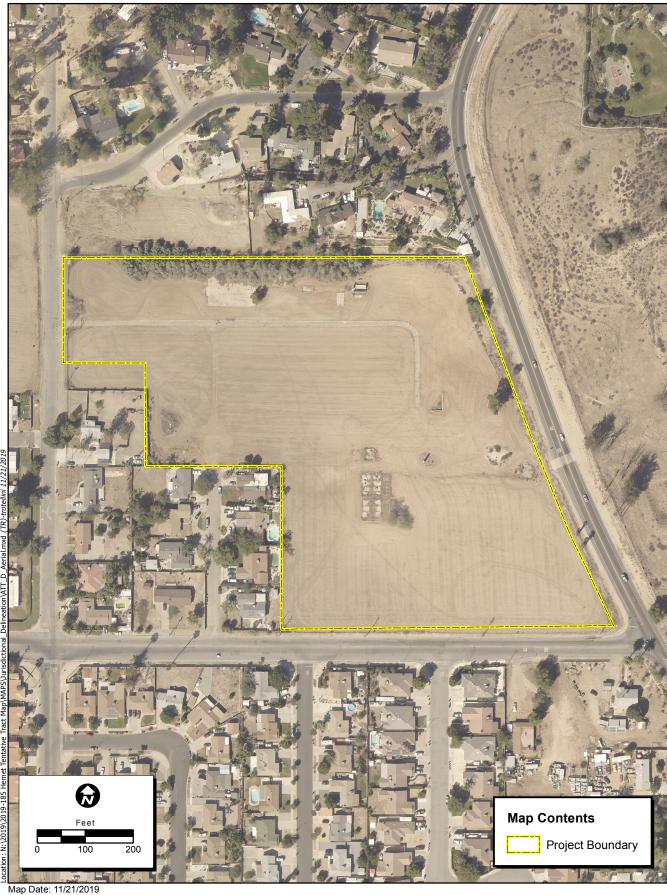
Photo 7: Sample Point 1 location at topographic low point of site



Photo 8: Area directly below culvert

ATTACHMENT D

Project Aerial Photograph



Map Date: 11/21/2019 Photo (or Base)Source: RCIT (2016)



