Appendix E2 Aquatic Resources Delineation

Appendices

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Aquatic Resources Delineation
for the
Ontario Regional Sports Complex Project

City of Ontario

San Bernardino County, California

Prepared For:

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
˚F	degrees Fahrenheit
Agencies	U.S. Environmental Protection Agency and Department of the Army
APT	Antecedent Precipitation Tool
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
FR	Federal Register
HUC	Hydrologic Unit Code
LSA	Lake or Streambed Alteration
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark
Project	Central Business Center Project
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
Study Area	Footprint of APNs 0463-201-44 and 0463-201-43
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

On behalf of Placeworks, Inc., ECORP Consulting, Inc. (ECORP), conducted an aquatic resources delineation for a portion of the Ontario Regional Sports Complex Project (Project) located in the City of Ontario, San Bernardino County, California. The approximately 0.46-acre Study Area is located at Assessor's Parcel Numbers 0216-31-409 and 0218-18-101 and also within the Public Right-of-Way (ROW) between these two parcels. The Study Area is located south of Schaefer Avenue, north of Edison Avenue, east of Walker Avenue, and west of South Archibald Avenue (Figure 1). This corresponds to unsectioned Santa Ana Del Chino Land Grant, U.S. Geological Service (USGS) 7.5-minute Corona North quadrangle (San Bernardino Base and Meridian; Figure 2). The approximate center of the Study Area is located at 33.998081° North and 117.610721° West. The Study Area is located within the Santa Ana watershed (Hydrologic Unit Code [HUC]-8 #18070203) and within the Lower Cucamonga Creek subwatershed (HUC-12 #180702030705; Natural Resources Conservation Service [NRCS], et al. 2023). Driving directions to the Study Area are included in Appendix A.

This report provides a summary of aquatic resources, if present, within the Study Area that may be regulated pursuant to the Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act, or Section 1600 et al. of the California Fish and Game Code. The Study Area for the purpose of this report includes portions of two APNs 0216-31-409 and 0218-18-101 as well as land within the Public ROW between these two APNs.

2.0 REGULATORY REQUIREMENTS

2.1 Waters of the United States

This report describes aquatic resources, including wetlands, that may be regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 and/or the Regional Water Quality Control Board (RWQCB) under Section 401 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

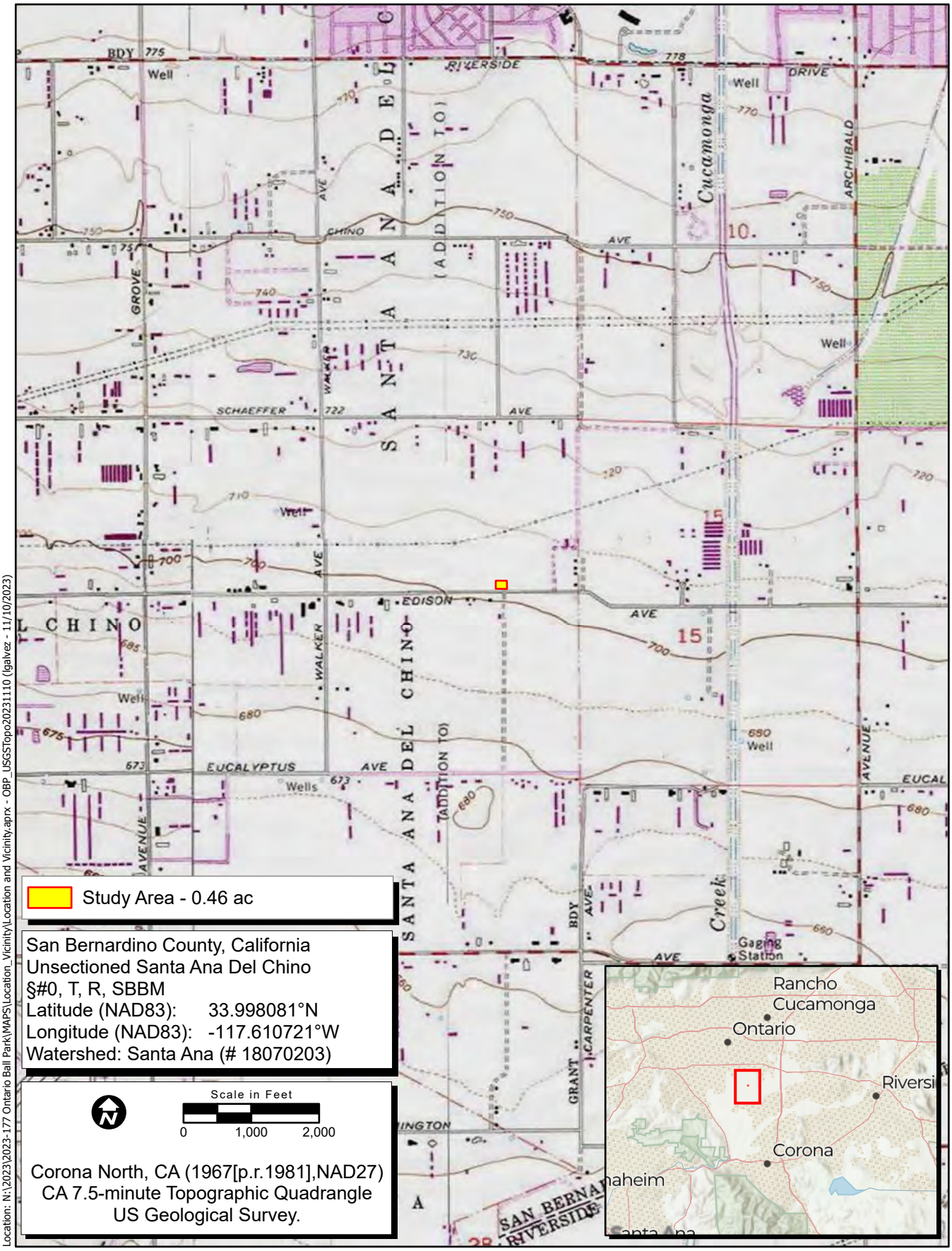
Other waters are nontidal, perennial, and intermittent watercourses and tributaries to such watercourses [51 FR 41250, Nov. 13, 1986, as amended at 58 FR 45036, August 25, 1993]. The limit of USACE jurisdiction for nontidal watercourses (without adjacent wetlands) is defined in 33 Code of Federal Regulations 328.4(c)(1) as the "ordinary high water mark" (OHWM). The OHWM is defined as the "line on the shore

Location: N:\2023\2023-177 Ontario Ball Park\MAPS\Location_Vicinity\Location and Vicinity.aprx - OBP_LnV_ARD20231110 (lgalvez - 11/10/2023)

Map Date: 11/10/2023

Sources: Maxar (2023)

Figure 1. Project Location and Vicinity



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Map Date: 11/10/2023
Sources: ESRI, USGS

Figure 2. USGS Topographic Quadrangle

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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. Waters of the U.S. include surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries, natural lakes, all wetlands adjacent to other waters, and all impoundments of these waters; a full definition is provided later in this report. *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 Code of Federal Regulations Section 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 RWQCB.

2.3 Jurisdictional Assessment

On December 22, 2022, the U.S. Environmental Protection Agency and Department of the Army (Agencies) announced a final rule defining Waters of the United States. The definition was founded upon the pre-2015 *Rapanos* decision, updated to reflect consideration of Supreme Court decisions, the science, and the Agencies' technical expertise. The final rule was published in the Federal Register on January 18, 2023 and effective as of March 20, 2023.

On May 25, 2023, the Supreme Court of the United States adopted a narrower definition of Waters of the United States in the case Sackett v. Environmental Protection Agency. Under the majority opinion, Waters of the United States refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection."

On August 29, 2023, the U.S. Environmental Protection Agency and the Department of the Army (Agencies) issued a final rule to amend the final "*Revised Definition of 'Waters of the United States'*" rule, published in the FR on January 18, 2023. This final rule conforms the definition of "waters of the United States" to the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. Parts of the January 2023 Rule are invalid under the Supreme Court's interpretation of

the CWA in the Sackett decision. Therefore, the Agencies have amended key aspects of the regulatory text to conform to the Court's decision.

The conforming rule became effective upon publication in the FR on September 9, 2023. Where the January 2023 Rule is not enjoined, the agencies will implement the January 2023 Rule, as amended by the conforming rule.

In summary, under the conforming rule, the term waters of the United States will mean:

- Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- The territorial seas;
- Interstate waters;
- Impoundments of waters otherwise defined as waters of the United States under this definition;
- Tributaries of a) Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide, b) the territorial seas, and c) interstate waters;
- Wetlands adjacent to a) Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide, b) the territorial seas, and c) interstate waters: or
- Wetlands adjacent (defined as having a continuous surface connection) to relatively permanent, standing or continuously flowing bodies of water identified as impoundments of waters and with a continuous surface connection to those waters.
- Intrastate lakes and ponds that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the water previously identified.

Waters excluded from this definition include prior converted cropland (defined by the U.S. Department of the Agriculture), waste treatment systems, ditches (including roadside ditches) excavated wholly in and draining only dry land, artificially irrigated areas that would revert to dry land if the irrigation ceased, artificial lakes or ponds, artificial reflecting pools or swimming pools, waterfilled depressions (e.g., created in dry land incidental to construction activity, pits excavated in dry land for purposes of obtaining fill, sand, or gravel), swales and erosional features (e.g., gullies, small washes) that are characterized by low volume, infrequent, or short duration flow.

2.4 Porter-Cologne Water Quality Control Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction

Permits for projects that disturb 1.0 or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of a Waste Discharge Requirements for these activities).

2.5 California Fish and Game Code Section 1602

Pursuant to Section 1602 of the California Fish and Game Code, a Notification of Lake or Streambed Alteration (LSA) form must be submitted 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" (California Department of Fish and Wildlife [CDFW] 2023). In Title 14 of the California Code of Regulations, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as:

> "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

The CDFW publishes no formal methodology for determination of the extent of their jurisdiction. The definition of streambed as:

> "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a "surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72).

For the purposes of this report, based on experience with the agency, the CDFW's jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the top of bank (TOB). It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source. Riparian vegetation associated with lakes or streambeds is also considered to be subject to CDFW's jurisdiction.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW will submit a draft Streambed Alteration Agreement (SAA) that includes measures to protect affected fish and wildlife resources. Through a process of review, comment, and modification between the CDFW and the applicant, the SAA becomes final when signed by both parties.

3.0 METHODS

3.1 Field Survey Investigation

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). Non-wetland waters were identified in the field according to *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 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* (USACE 2010), where applicable. The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses). Field data were recorded on Wetland Determination Data Forms – Arid West Region (Appendix B). A color aerial photograph available on Google Earth© was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Munsell Color 2009) and the Web Soil Survey (NRCS 2023a) were used to aid in identifying hydric soils in the field. *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) was used for plant nomenclature and identification.

The field survey was conducted on November 13, 2023 by ECORP biologists Chelsie Brown and Alexandra Dorough. The biologists walked the entire approximately 0.46-acre Study Area to determine the location and extent of aquatic resources within the Study Area. No aquatic resources were found onsite, so no paired sample locations were surveyed. Non-paired locations were sampled to document representative upland areas that lacked hydrophytic vegetation, hydric soils, and/or wetland hydrology. Sampling locations were recorded in the field using a post-processing capable Global Positioning System unit with sub-meter accuracy (e.g., tablet or phone with ArcGIS™ Field Maps using Juniper Geode™ submeter).

A typical year analysis of the Study Area was conducted via a single-point method using the USACE Antecedent Precipitation Tool (APT; USACE 2023). The APT is an automation tool that utilizes standardized methodology to calculate precipitation normalcy at a given location using publicly available data sources. The APT analysis determines whether precipitation, drought, and other climatic conditions from the previous three months are wet, normal, or dry for the geographic area based on a rolling 30-year period (USACE 2023).

3.2 Routine Determinations for Wetlands

The following three criteria must be met to be determined a wetland:

- 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.

3.2.1 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, 2008).

Dominant plant species observed at each sampling point were then classified according to the indicator status (probability of occurrence in wetlands; Table 1) in the National Wetland Plant List (USACE 2020). If the majority (more 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 (assumed upland species)	N/L	Does not occur in wetlands in any region.

[1]Source: U.S. Army Corps of Engineers (USACE) 2012

In instances where indicators of hydric soil and wetland hydrology were detected but the plant community failed the dominance test, the vegetation was reevaluated 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.

3.2.2 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.

A soil pit was excavated at each sampling point 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* (Munsell Color 2009). 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.

3.2.3 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.

3.3 Post-Processing

The data collected in the field utilized ArcGIS™ Field Maps on a device (smartphone or tablet) connected to a submeter external receiver. The submeter receiver applies differential correction instantaneously in the field using the Satellite-Based Augmentation System. The data were then viewed and analyzed for verification, edited, and compiled in Geographic Information System format at the time of download. ArcGIS™ software was used to develop the geodatabase and the shapefiles depicted on the figures included in this report.

4.0 RESULTS

4.1 Existing Site Conditions

The Study Area is on relatively flat terrain situated at an elevational range of approximately 685 to 705 feet above mean sea level in the South Coast Subregion of the Southwestern region of the California Floristic Province (Baldwin et al. 2012). This area is characterized by an arid Mediterranean climate, which is comprised of hot and dry summer months and cooler winter months with precipitation recorded as

combination of snow and rain. The average winter low temperature in the vicinity of the Study Area is 55.2 degrees Fahrenheit (˚F), and the average summer high temperature is 80.1˚F. Average annual precipitation is approximately 11.64 inches, which falls as rain (National Oceanic and Atmospheric Administration [NOAA] 2023a). During the 2022-2023 water year prior to the field survey (i.e., October 1, 2022 to September 30, 2023), 25.79 inches of precipitation were recorded at the Ontario International Airport, California reporting station (NOAA 2023b), located approximately 4 miles north of the Study Area.

The Study Area consists of disturbed land with ruderal plant species present including peregrine saltbush (*Atriplex suberecta*), lamb's quarters (*Chenopodium album*), and golden crownbeard (*Verbesina encelioides* ssp. *exauriculata*). A waste management basin is present within the Study Area and does not appear to be maintained currently; however, the waste management basin can be seen on aerial imagery as far back as 1994 and appears to have been maintained until 2020 or 2021 (Google Earth 2023). The waste management basin was constructed for an adjacent dairy farm operation under an Engineered Waste Management Plan for the RWQCB under a permit to operate. Aerial imagery shows that the adjacent dairy farm was converted to a nursery starting in 2020 or 2021.

The bottom of the waste management basin is partially vegetated and dominated by peregrine saltbush and lamb's quarters. Pieces of old furniture, uprooted vegetation, dirt fill, and trash are observed along the northern and western banks of the basin. One to two individuals of mulefat (*Baccharis salicifolia*) and two to three individuals of black willow (*Salix gooddingii*) are present along the southeastern banks of the waste management basin. Surrounding land uses are primarily active agriculture and disturbed land. Cropland occurs immediately west and east of the Study Area. A paved road, Edison Avenue, occurs immediately south of the Study Area. Irrigation pipes run along the eastern boundary of the Study Area. The Study Area likely receives runoff from the adjacent cropland to the west and east and from the adjacent irrigation pipes to the east.

A complete list of plant species observed within the Study Area is provided in Appendix B.

The aquatic resources delineation was conducted in the winter, outside the blooming season for most plant species. The survey was conducted at an acceptable time of the year to observe wetland hydrology, and although few wetland plant species were in bloom at the time of the survey, most plants were identifiable to species based upon vegetative or fruit morphology.

The APT was run for the Study Area for the date the field delineation data were collected, November 13, 2023. The APT demonstrated the site conditions on this date represents a time of year referenced as the dry season, that the general region and site's drought conditions were of moderate wetness, and that site conditions were normal in climatic conditions (USACE 2023).

A previous study was conducted for the site by Glenn Lukos Associates, Inc. in 2015 and found no aquatic resources in the rest of the Project Area (Glenn Lukos Associates, Inc. 2015a, 2015b).

4.1.1 Soils

According to the Web Soil Survey (NRCS 2023a), one soil unit, or type, has been mapped within the Study Area (Figure 3; Table 2; NRCS 2023a):

- Db - Delhi fine sand.

The Delhi series consists of very deep, somewhat excessively drained soils that formed in wind modified material weathered from granitic rock sources. Delhi soils are found on floodplains, alluvial fans, and terraces and have slopes of 0 to 15 percent (NRCS 2023b).

Table 2. Natural Resources Conservation Service Soil Types within the Study Area[1]

Map Unit Symbol	Map Unit Name	Hydric Rating[2]	Hydric Components[2]	Hydric Component Landform[2]
Db	Delhi fine sand	Yes	Unnamed	Depressions

[1]Source: NRCS 2023a
[2]Source: NRCS 2023c

4.1.2 National Wetlands Inventory

The U.S. Fish and Wildlife Service (USFWS) has established the National Wetlands Inventory (NWI) to conduct a nationwide inventory of U.S. wetlands to provide biologists and others with information on the distribution and type of wetlands to aid in conservation efforts (USFWS 2023). The USFWS's objective of mapping wetlands and deep-water habitats is to produce reconnaissance-level information on the location, type, and size of these resources. The maps are prepared from the analysis of high-altitude imagery. Wetlands are identified based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE.

According to NWI, one aquatic freshwater pond classified as PUBHx, or *Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated*, has been previously mapped within the Study Area (Figure 4). This feature corresponds to the waste management basin assessed during the aquatic resources delineation. This waste management basin does not support wetland characteristics or OHWM indicators, based on field data collected on November 13, 2023.

4.2 AQUATIC RESOURCES

No aquatic resources were identified within the Study Area. Three sample points were collected in the waste management basin within the Study Area (Figure 5). None of the sample points passed the three-criteria necessary to be a wetland. Soils were significantly disturbed throughout the bottom of the waste management basin and included fill material as well as runoff of soils from adjacent cropland.

Map Contents

Study Area - 0.46 ac

Series Number - Series Name

Db,Delhi fine sand

Sources: Maxar., Esri World Imagery

Location: N:\2023\2023-177 Ontario Ball Park\MAPS\Soils_and_Geology\Ontario_Soils_Geology.aprx - OPB Soils 20231110 (lgalvez - 11/10/2023)

Map Date: 11/10/2023

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Scale in Feet
0 300

E2-15

Figure 3. Natural Resources Conservation Service Soil Types

2023-177 Ontario Ball Park

Map Contents

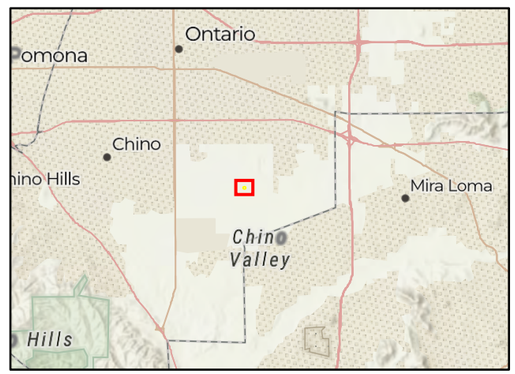
Study Area - 0.46 ac

NWI Type

Freshwater Emergent Wetland

Freshwater Pond

Sources: ESRI, Maxar (2023), NWI



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Map Date: 11/10/2023

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Scale in Feet
0 300

E2-16

Figure 4. National Wetlands Inventory

2023-177 Ontario Ball Park

Map Contents

- Study Area - 0.46 ac.
- Reference Coordinates (NAD83)

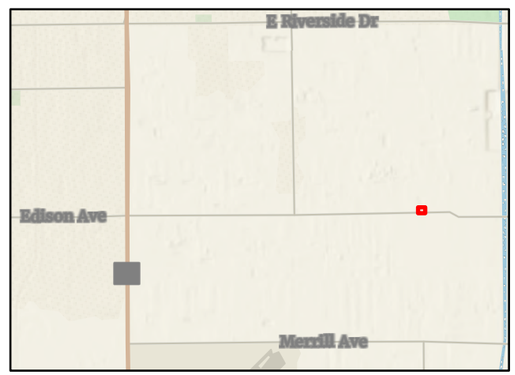
Sample Points

- Upland Sample Point

Photo Source: Esri Imagery, Maxar (2023)
Boundary Source: Placeworks
Delineator(s): Chelsie Brown
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

[1] Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

* The acreage value for each feature has been rounded to the nearest 1/100 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.



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Map Date: 11/16/2023

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Scale in Feet
0 25

E2-17

Figure 5. Aquatic Resources Delineation

2023-177 Ontario Ball Park

Sample Point 1: The dominant plants at Sample Point 1 included peregrine saltbush (FACU) and lamb's quarters (FACU) and did not pass the dominance test or prevalence index for hydrophytic vegetation. The soil matrix colors were 10YR 2/2, 2.5Y 4/2, and 5Y 4/2, at depths of zero to three inches, three to five inches, and five to 18 inches, respectively, with no redox features present. The soil at Sample Point 1 did not meet the hydric soil criteria. Wetland hydrology indicators observed at Sample Point 1 included saturation (A3), surface soil cracks (B6), inundation visible on aerial imagery (B7), and biotic crust (B12). Saturation was present at Sample Point 1 from the soil surface to a depth of 5 inches.

Sample Point 2: Two plant species were dominant at Sample Point 2, including peregrine saltbush (FACU) and lamb's quarters (FACU). The plants did not pass the dominance test or prevalence index for hydrophytic vegetation. The soil at Sample Point 2 did not meet the hydric soil criteria. Soil matrix colors included 7.5YR 2.5/2 at a depth of zero to two inches, with no redox features present, and the matrix was colored 5Y 5/2 at a depth of two to 19 inches, with no redox features present. Sample Point 2's wetland hydrology indicators included surface soil cracks (B6) and inundation visible on aerial imagery (B9).

Sample Point 3: One dominant plant species, peregrine saltbush (FACU), was present at Sample Point 3. Vegetation at Sample Point 3 did not pass the dominance test or prevalence index for hydrophytic vegetation. Soil matrix colors included 10YR ¾ at a depth of zero to eight inches and was colored 5Y 4/2 at a depth of eight to 18 inches with 2-percent redox concentrations in the matrix and pore lining colored 7.5YR 4/4. The soil at Sample Point 3 met the depleted matrix (F3) hydric soil indicator. However, the presence of hydric soils could be relict from when this area was extensively irrigated, and the basin was regularly maintained. Wetland hydrology indicators included surface soil cracks (B6) and inundation visible on aerial imagery (B7).

A list of plant species observed within the Study Area is included as Appendix B. The wetland determination data forms documenting upland conditions throughout the Study Area are included as Appendix C. Photo-documentation of the Study Area is included as Appendix D.

5.0 JURISDICTIONAL ASSESSMENT

The entire approximately 0.46-acre Study Area consists of upland habitat with a waste management basin present. There are no aquatic resources present within the Study Area.

There are no features present in the Study Area that meet the current definition of Waters of the U.S. to be regulated by USACE under Section 404 of the Clean Water Act. In addition, there are no resources present that would qualify as Section 401 resources jurisdictional to the RWQCB.

The waste management basin located within the Study Area is not considered a 1602 regulated feature by CDFW because this feature does not fall within the definition of "streams, rivers, or lakes," is not hydrologically connected with any stream, river, or lake, and would not contribute runoff to any such feature. Section 1602(a) of the Fish and Game Code outlines waters subject to a requirement that an LSA Notification be submitted to CDFW. This code applies when an entity:

- Substantially diverts or obstructs the natural flow of any river, stream or lake;

- Substantially changes or uses any material from the bed, channel, or bank of any river, stream or lake; or
- Deposits or disposes of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake.

Therefore, the waste management basin is not expected to be subject to regulation under California Fish and Game Code Section 1602.

6.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual; Vascular Plants of California, Second Edition*. University of California Press, Berkeley, California. 1,519 pp. + app.

California Department of Fish and Wildlife (CDFW). 2023. Environmental Review and Permitting. Available at: https://wildlife.ca.gov/Conservation/Environmental-Review.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.

Glenn Lukos Associates, Inc. 2015a. *Biological Technical Report for Portions of the Armstrong Ranch Specific Plan, Tentative Tract 19966* (CVRC Ontario Investment, LLC Properties and Off-site Improvement Lands). Prepared August 19.

_____. 2015b. *Biological Technical Report for the Armstrong Ranch Specific Plan (Remaining lands – Non CVRC Ontario Investment, LLC Properties), Located in the City of Ontario, San Bernardino, California*. Prepared for John Condas at Allens Matkins Leck Gamble Mallory & Natsis, LLP. Dated August 2015.

Google Earth. 2023. Version 9.189.0.0. [Online] Available at: https://earth.google.com/web/. Accessed November 8, 2023.

Munsell Color. 2009. *Munsell Soil Color Book*. Munsell Color. Grand Rapids, Michigan.

National Oceanic and Atmospheric Administration (NOAA). 2023a. NCDC 1991-2020 Climate Normals for Ontario Intl AP, CA. Available Online: https://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed November 8, 2023.

_____. 2023b. Climate Date Online: Daily Precipitation Summaries for Ontario International Airport, CA US. Available online: https://www.ncdc.noaa.gov/cdo-web/search. Accessed November 8, 2023.

Natural Resources Conservation Service (NRCS). 2023a. Soil Survey Geographic Database. Available online: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed November 8, 2023.

_____. 2022b. Official Soil Series Descriptions. Available at https://soilseries.sc.egov.usda.gov/osdname.aspx. Accessed November 8, 2023.

_____. 2023c. Soil Data Access Hydric Soils List. Available at https://www.nrcs.usda.gov/publications/query-by-ssa.html. Accessed November 8, 2023.

_____. 2003. *National Soil Survey Handbook*. http://soils.usda.gov/technical/handbook.

Natural Resources Conservation Service (NRCS), U.S. Geological Survey (USGS), U.S. Environmental Protection Agency. 2023. Watershed Boundary Dataset for California. Available online: https://datagateway.nrcs.usda.gov. Accessed November 8, 2023.

U.S. Army Corps of Engineers (USACE). 2023. The Antecedent Precipitation Tool. Available Online: https://github.com/erdc/Antecedent-Precipitation-Tool/releases/tag/v2.0.0. Accessed November 29, 2023.

_____. 2020. National Wetland Plant List, version 3.5. USACE Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Available online: https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html.

_____. 2012. National Wetland Plant List Indicator Rating Definitions. Lichvar, R.W., N.C. Melvin, M.L. Butterwick, and W.N. Kirchner. ERDC/CRREL TN-12-1. U.S. Army Corps of Engineers, Research and Development Center.

_____. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. Curtis, K.E. and R.W. Lichvar. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center.

_____. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Ed. Wakeley, J.S., R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

_____. 1992. Clarification and Interpretation of the 1987 Manual. Memorandum from Major General Arthur E. Williams. Dated March 6, 1992.

U.S. Fish and Wildlife Service (USFWS). 2023. National Wetland Inventory, Wetlands Mapper. Available online: https://www.fws.gov/wetlands/data/Mapper.html. Accessed on November 8, 2023.

LIST OF APPENDICES

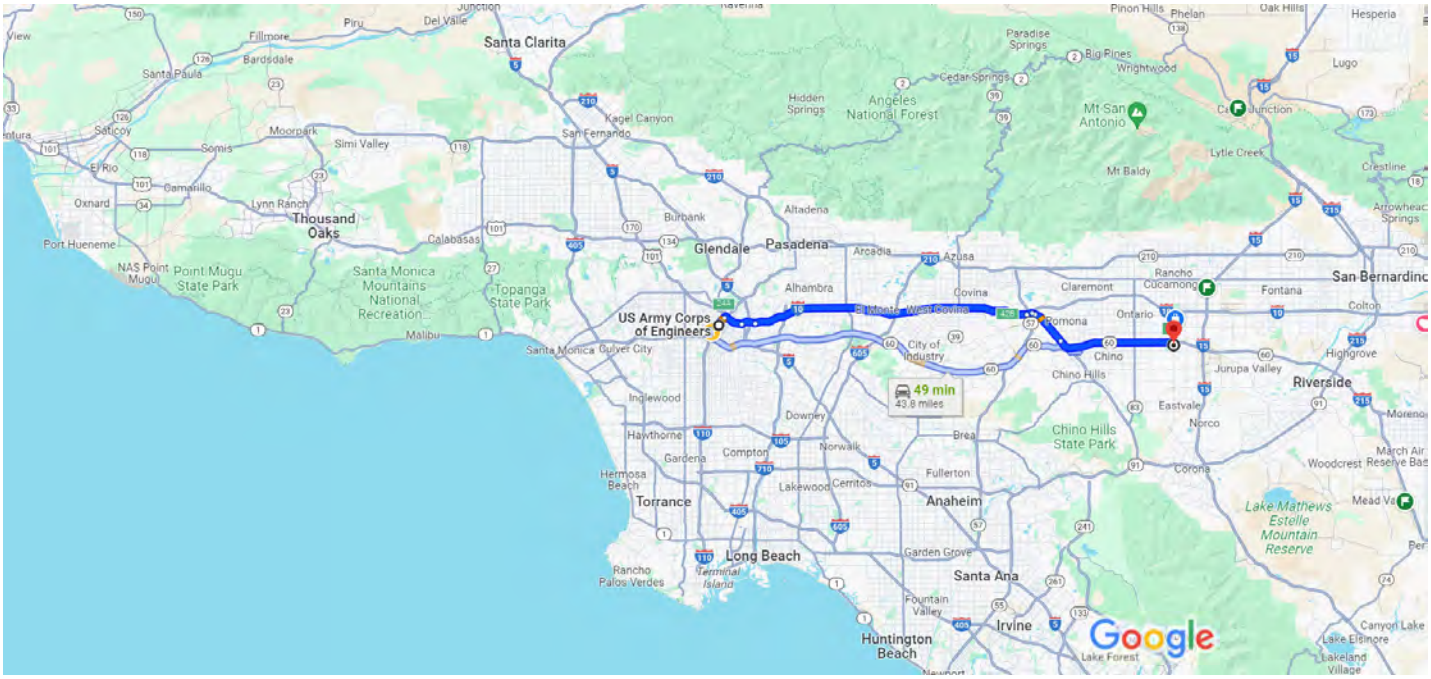
APPENDIX A

Driving Directions to Study Area

US Army Corps of Engineers, 915 Wilshire Blvd, Los Angeles, CA 90017 to Mountain View Elementary School District, Ontario, CA

Drive 41.2 miles, 46 min

Ontario Sports Complex Project Aquatic Resources Delineation Study Area



Map data ©2023 Google 5 mi

US Army Corps of Engineers
915 Wilshire Blvd, Los Angeles, CA 90017

Get on CA-110 N from S Figueroa St

2 min (0.5 mi)

1. Head southeast on Wilshire Blvd toward S Figueroa St

315 ft

2. Use the left 2 lanes to turn left at the 1st cross street onto S Figueroa St

0.2 mi

3. Use the 3rd from the left lane to turn left at the 3rd cross street onto W 5th St

125 ft

4. Take the Habor Fwy N/California 110 N ramp

0.2 mi

Take I-10 E and CA-60 E to S Archibald Ave in Ontario. Take exit 38 from CA-60 E

40 min (40.5 mi)

5. Merge onto CA-110 N

0.5 mi

6. Use the right 3 lanes to take exit 24A to merge onto US-101 S toward I-5 S
⚠ Parts of this road may be closed at certain times or days

1.7 mi

7. Keep left at the fork to continue on San Bernardino Fwy, follow signs for I-10 E/San Bernardino

1.2 mi

8. Continue onto I-10 E/San Bernardino Fwy

23.4 mi

9. Take exit 42B for CA-71 S toward Corona

0.4 mi

10. Keep left, follow signs for Devry Univ/Cal Poly Univ

0.3 mi

11. Continue onto CA-71 S

3.2 mi

12. Use the right 2 lanes to take exit 12 to merge onto CA-60 E toward Riverside
⚠ Parts of this road may be closed at certain times or days

9.6 mi

13. Take exit 38 for Archibald Ave

0.3 mi

14. Turn right onto S Archibald Ave
ⓘ Pass by KFC (on the right)

58 sec (0.2 mi)

Mountain View Elementary School District
Ontario, CA

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS
ANGIOSPERMS (DICOTYLEDONS)		
ASTERACEAE	SUNFLOWER FAMILY	
Baccharis salicifolia	Mulefat	FAC
Cirsium sp.	Thistle	–
*Erigeron bonariensis**	Flax-leaved horseweed	FACU
Verbesina encelioides ssp. *exauriculata**	Golden crownbeard	FACU
BRASSICACEAE	MUSTARD FAMILY	
*Hirschfeldia incana**	Short-pod mustard	N/L
*Sisymbrium irio**	London rocket	N/L
AMARANTHACEAE	PIGWEED FAMILY	
*Amaranthus albus**	Pigweed amaranth	FACU
*Atriplex suberecta**	Peregrine saltbush	FACU
*Chenopodium album**	Lamb's quarters	FACU
*Salsola tragus**	Russian thistle	FACU
MALVACEAE	MALLOW FAMILY	
*Malva parviflora**	Cheeseweed mallow	N/L
SALICACEAE	WILLOW FAMILY	
Salix gooddingii	Black willow	FACW
SOLANACEAE	NIGHTSHADE FAMILY	
*Nicotiana glauca**	Tree tobacco	FAC
URTICACEAE	NETTLE FAMILY	
*Urtica urens**	Dwarf nettle	N/L
ANGIOSPERMS (MONOCOTYLEDONS)		
POACEAE	GRASS FAMILY	
*Cynodon dactylon**	Bermuda grass	FACU
Setaria sp.	Bristlegrass	–

*nonnative species

Wetland Status Codes:
OBL – Obligate Wetland; Almost always occur in wetlands
FACW – Facultative Wetland; Usually occur in wetlands, but may occur in non-wetlands
FAC – Facultative; Occur in wetlands and non-wetlands
FACU – Facultative Upland; Usually occur in non-wetlands, but may occur in wetlands
UPL – Obligate Upland; Almost never occur in wetlands
N/L – Plants that are Not Listed; Does not occur in wetlands in any region

APPENDIX C

Field Datasheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Ontario Sports Complex City/County: Ontario/San Bernardino County Sampling Date: 11/13/2023

Applicant/Owner: Placeworks, Inc. State: CA Sampling Point: 1

Investigator(s): C.Brown, A.Dorough Section, Township, Range: Unsectioned Santa Ana Del Chino Land Grant

Landform (hillside, terrace, etc.): bottom of basin Local relief (concave, convex, none): concave Slope (%): <1

Subregion (LRR): LRR C Lat: 33.998096 Long: -117.610675 Datum: NAD 83

Soil Map Unit Name: Db - Delhi fine sand NWI classification: PUBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Hydrology appears to be from runoff from adjacent cropland and from adjacent irrigation pipes for adjacent cropland. Soils are significantly disturbed and include fill material as well as the runoff of soils from adjacent cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Atriplex suberecta*	40	Yes	FACU
2. *Chenopodium album*	40	Yes	FACU
3. *Verbesina encelioides ssp. exauriculata*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
	85	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust 0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					Loamy/Clayey	Silty clay soils with 20% organic roots present
3-5	2.5Y 4/2	100					Loamy/Clayey	sandy loam soils
5-18	5Y 4/2	100					Loamy/Clayey	clay loam soils

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:
Algae is present underneath the soil surface in some areas with saturated soils within the bottom of the basin. Soils are significantly disturbed and include fill material as well as runoff of soils from adjacent croplands.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

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

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

Remarks:
Saturation present from 0-5 inches. Biotic crust present nearby but outside of sampling plot.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Ontario Sports Complex City/County: Ontario, San Bernardino County Sampling Date: 11/13/2023
Applicant/Owner: Placeworks, Inc. State: CA Sampling Point: 2
Investigator(s): C.Brown, A.Dorough Section, Township, Range: Unsectioned Santa Ana Del Chino Land Grant
Landform (hillside, terrace, etc.): bottom of basin Local relief (concave, convex, none): concave Slope (%): <1
Subregion (LRR): LRR C Lat: 33.998177 Long: -117.610710 Datum: NAD 83
Soil Map Unit Name: Db - Delhi fine sand NWI classification: PUBHx

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

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

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

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Hydrology appears to be from runoff from adjacent cropland and from adjacent irrigation pipes for adjacent cropland. Soils are significantly disturbed and include fill material as well as the runoff of soils from adjacent cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Atriplex suberecta*	20	Yes	FACU
2. *Verbiscina enceloides ssp. exauriculata*	2	No	FACU
3. *Chenopodium album*	8	Yes	FACU
4.			
5.			
6.			
7.			
8.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	30 (A)		120 (B)
Prevalence Index = B/A =			4.00

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 2.5/2	100					Loamy/Clayey	loamy sand soils
2-19	5Y 5/2	100					Sandy	Sand soil

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:
Soils are significantly disturbed and include fill material as well as runoff of soils from adjacent croplands.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Ontario Sports Complex City/County: Ontario, San Bernardino County Sampling Date: 11/13/2023
Applicant/Owner: Placeworks, Inc. State: CA Sampling Point: 3
Investigator(s): C.Brown, A.Dorough Section, Township, Range: X
Landform (hillside, terrace, etc.): bottom of basin Local relief (concave, convex, none): concave Slope (%): <1
Subregion (LRR): LRR C Lat: 33.998118 Long: -117.610841 Datum: NAD 83
Soil Map Unit Name: Db - Delhi fine sand NWI classification: PUBHx

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

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

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

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Hydrology appears to be from runoff from adjacent cropland and from adjacent irrigation pipes for adjacent cropland. Soils are significantly disturbed and include fill material as well as the runoff of soils from adjacent cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. *Atriplex suberecta*	50	Yes	FACU
2. *Chenopodium album*	12	No	FACU
3. *Salsola tragus*	2	No	FACU
4. *Sisymbrium irio*	4	No	UPL
5. *Hirschfeldia incana*	2	No	UPL
6.			
7.			
8.			
	70 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	64	x 4 =	256
UPL species	6	x 5 =	30
Column Totals:	70 (A)		286 (B)
Prevalence Index = B/A =			4.09

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/4	100					Loamy/Clayey	silty clay soils
8-18	5Y 4/2	98	7.5YR 4/4	2	C	PL/M	Loamy/Clayey	Silty clay loam soils

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:
Soils are significanty disturbed and include fill material as well as runoff of soils from adjacent cropland. Presence of hydric soils could be relict from when this area was extensively irrigated and the basin was regularly inundated.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

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

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

Remarks:

APPENDIX D

Representative Site Photographs

Photo 1. Waste Management Basin Located within Study Area with a Few Mulefat Shrubs and Black Willows Present in the Southeast Corner (Far Distance).

Photo 2. Mulefat and Black Willow Individuals Present Along the Southeastern Banks of the Waste Management Basin.

Photo 3. Saturated Soils Present in Waste Management Basin at the Time of Field Survey.

Photo 4. Disturbances Present, including Pieces of Old Furniture, Uprooted Vegetation, Dirt Fill, and Trash Present Along the Northern and Eastern Walls of the Basin.

Photo 5. Irrigation Piping Present Along the Eastern Boundary of the Study Area, Which Appear to Provide a Source of Hydrology to the Waste Management Basin.

Photo 6. Location of Upland Sample Point 1.

Photo 7. Location of Upland Sample Point 2.

Photo 8. Location of Upland Sample Point 3.