Appendix D-2
LAX SPECIFIC PLAN AMENDMENT STUDY

Jurisdictional Delineation

July 2012

Prepared for:

Los Angeles World Airports
One World Way
Los Angeles, California 90045

Prepared by:

Glenn Lukos Associates
29 Orchard
Lake Forest, California 92630

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Table of Contents

List of Figures

Attachments

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1. INTRODUCTION

This report summarizes Glenn Lukos Associates' (GLA) preliminary findings of U.S. Army Corps of Engineers Corps (USACOE[1]), and California Department of Fish and Game (CDFG) jurisdiction for the Los Angeles International Airport (LAX).[2]

The LAX Specific Plan Amendment Study (SPAS) biological resources study area, located in Los Angeles County (**Figure 1**), comprises approximately 3,815 acres and contains two blue-line drainages, the Argo Drainage Channel, and the Century Boulevard Storm Drain. The biological resources study area is located within the U.S. Geological Survey (USGS) topographic maps Venice and Inglewood, California) (**Figure 2**). On July 7 and December 1, 2011, regulatory specialists of GLA examined the project site to determine the limits of (1) USACOE jurisdiction pursuant to Section 404 of the Clean Water Act, and (2) CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. **Figure 3** is an 800-scale map that depicts the areas of USACOE and CDFG jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided in **Figure 4**. Wetland data sheets are provided in Attachment 1. Preliminary Jurisdictional Determination Forms are provided in Attachment 2.

USACOE jurisdiction at the site totals approximately 3.78 acres, of which approximately 2.45 acres consist of non-wetland waters of the United States, and approximately 1.33 acres consist of jurisdictional wetlands.

CDFG jurisdiction at the site totals approximately 3.97 acres, of which approximately 2.45 acres consist of streambed, and approximately 1.52 acres consist of vegetated riparian habitat.

There is no California Coastal Commission (CCC) jurisdiction associated with the biological resources study area, as the only portion of the biological resources study area subject to the jurisdiction of the CCC is the Los Angeles/El Segundo Dunes, which contain no potential jurisdictional areas. All areas subject to the jurisdiction of the USACOE and CDFG are located east of Pershing Drive, outside the coastal zone.

2. METHODOLOGY

2.1 Literature Review

Prior to beginning the field delineation, a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of USACOE/CDFG jurisdiction.

Additionally, a literature review was conducted of the past jurisdictional delineations conducted for the biological resources study area and other relevant documents, including:

- LAX Master Plan Final EIR, Appendix J2, *Jurisdictional Delineation,* April 2004
- LAX Master Plan Final EIR, Appendix S-A, *Agency Consultation Letters,* April 2004
- LAX Master Plan Final EIR, Section 4.12, *Wetlands,* April 2004
- LAX Bradley West Project Draft EIR, Section 5.6, *Wetlands*, September 2009
- Jurisdictional Delineation Report, Tom Bradley International Terminal Reconfiguration Project (Bradley West Project) and Airfield Operations Area, June 2009

[1] The US Army Corps of Engineers refers to itself in regulatory documents as “Corps,” and GLA typically follows this convention; however, previous documentation for the Master Plan EIR has used the term “USACOE,” and as such GLA will use the latter term for consistency with LAX Master Plan EIR documents.

[2] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

The literature review found that the biological resources study area has in the past supported ephemerally-wetted areas that were determined by the USACOE to be jurisdictional wetlands. Impacts to these jurisdictional wetlands were previously considered by the LAX Master Plan EIR. The USEPA subsequently determined that these ephemerally-wetted areas USACOE are not waters of the United States[3] and they are not discussed further in this document. Two blue-line drainage features were found to appear within the biological resources study area, the Argo Drainage Channel and the Century Boulevard Storm Drain.

A review of historical topographic maps and aerial photographs[4] conducted for the LAX Master Plan EIR indicated that the Argo Drainage Channel is a man-made flood control structure that was constructed circa 1949. The Argo Drainage Channel does not connect to any river, stream, or lake, but has been determined to flow into the Pacific Ocean through connections with the City of Los Angeles' storm drain system.[5] A jurisdictional delineation of the Argo Drainage Channel was previously completed in support of emergency channel maintenance activities in October 1997. This was triggered by exertion of jurisdiction by CDFG over the channel pursuant to Section 1600 of the California Fish and Game Code. Section 1600 of the CDFG code requires a Streambed Alteration Agreement (SAA) for projects that will divert or obstruct the natural flow of water, change the bed channel, or bank of any stream, or use any material from a streambed. As a man-made structure, the Argo Drainage Channel was considered by LAWA not to be subject to the jurisdiction of the CDFG. However, CDFG and USACOE exerted jurisdiction over isolated wetlands and riparian habitat that had formed in the Argo Drainage Channel from a lack of routine operations and maintenance activities over an approximate 20-year period. CDFG and USACOE authorized emergency operations and maintenance activities that involved permanently removing riparian and wetland vegetation not exceeding 1.0 acre from the Argo Drainage Channel for the purpose of airport operational safety pursuant to a Negotiated Agreement and to Nationwide Permit No. 31 issued on January 7, 1998. As required by the CDFG Negotiated Agreement, and the USACOE authorization, the removal of isolated wetland and riparian vegetation was mitigated by LAWA through an off-site mitigation program, which consisted of the successful native plantings in the existing wetlands at Ken Malloy Regional Park. Because CDFG and USACOE jurisdictional areas impacted largely overlapped, the same off-site mitigation was appropriately used for both agencies. On December 9, 2004, USACOE issued a letter of satisfaction to LAWA recognizing the successful completion of the mitigation work. According to Section 4.12, Wetlands, of the LAX Master Plan EIR, USACOE determined that, upon completion of emergency operations and maintenance activities, the Argo Drainage Channel would no longer be subject to its jurisdiction pursuant to Section 404 of the Clean Water Act. However, this has not been confirmed. Therefore, for the purposes of this EIR, it is assumed that Argo Drainage Channel has the potential to continue to be subject to the jurisdiction of USACOE.

According to the LAX Master Plan EIR, field examination of the second "blue-line" drainage depicted on the topographic map revealed the Century Boulevard Storm Drain to be a man-made urban flood control structure excavated from a terrestrial upland area. The Century Boulevard Storm Drain parallels Century Boulevard and Aviation Boulevard, and consists primarily of a concrete box structure. It was determined that the storm drain does not contain soils or vegetation and, therefore, does not constitute a wetland or "waters of the United States."[6] The Century Boulevard Storm Drain has subsequently been converted into an underground structure and therefore is not a jurisdictional feature.

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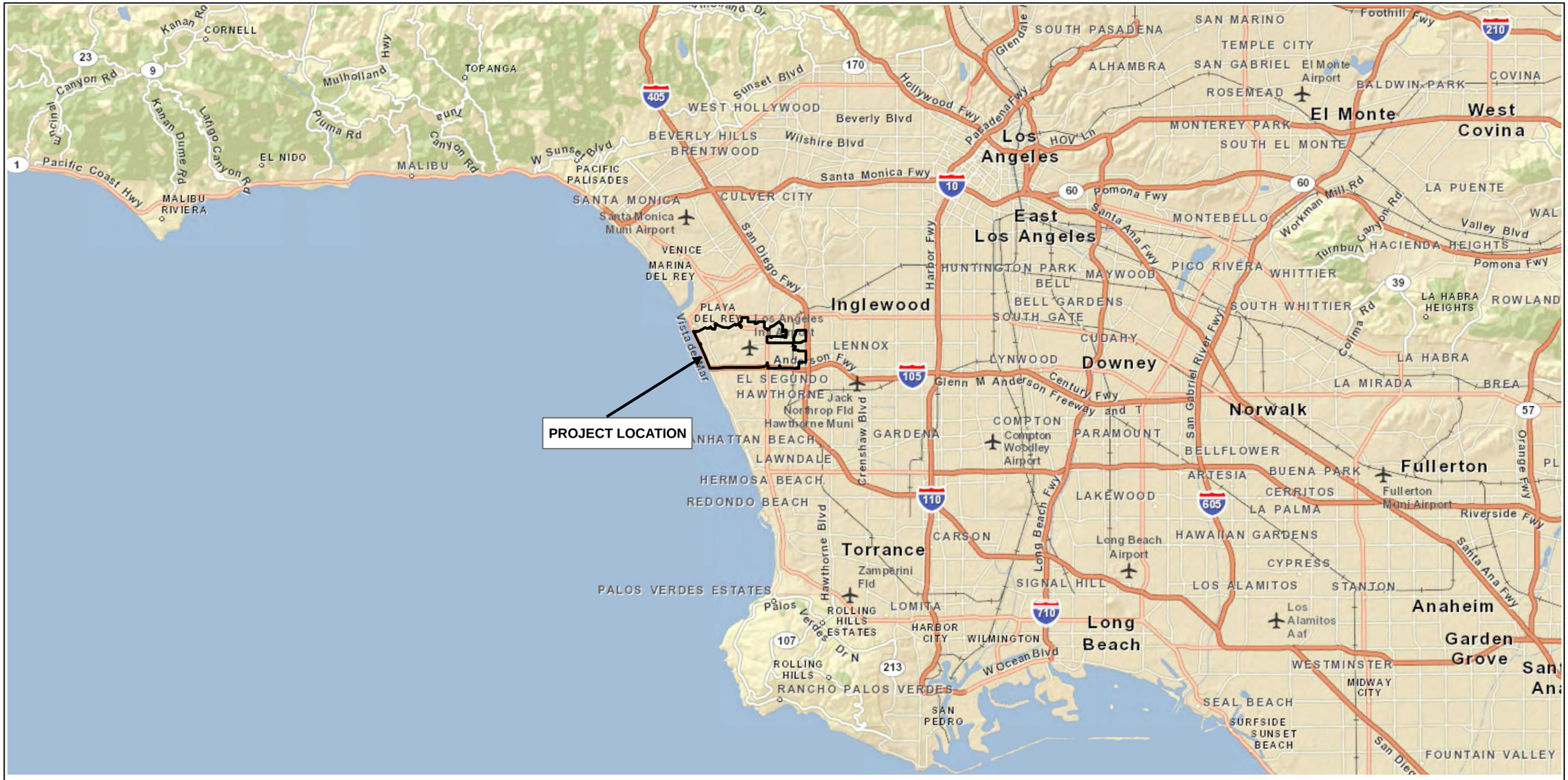
3 U.S. Army Corps of Engineers, Los Angeles District, Letter to Robert Freeman, Los Angeles World Airports, from Daniel P. Swensen: Approved Jurisdictional Determination Regarding Presence/Absence of Geographic Jurisdiction, December 30, 2009.

4 Sapphos Environmental, Inc., Memorandum for the Record (JN 1067-004.M18), Recommendations for Addressing Regulatory Compliance Issues Related to Areas Subject to the Jurisdiction of the U.S. Army Corps of Engineers and the California Department of Fish and Game at Los Angeles International Airport, City of Los Angeles, California, 1997.

5 Bapna, Victor, County of Los Angeles Department of Public Works, Personal Communication, August 2000.

6 City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Section 4.12, Wetlands, April 2004.



0 20,000 ft
Scale

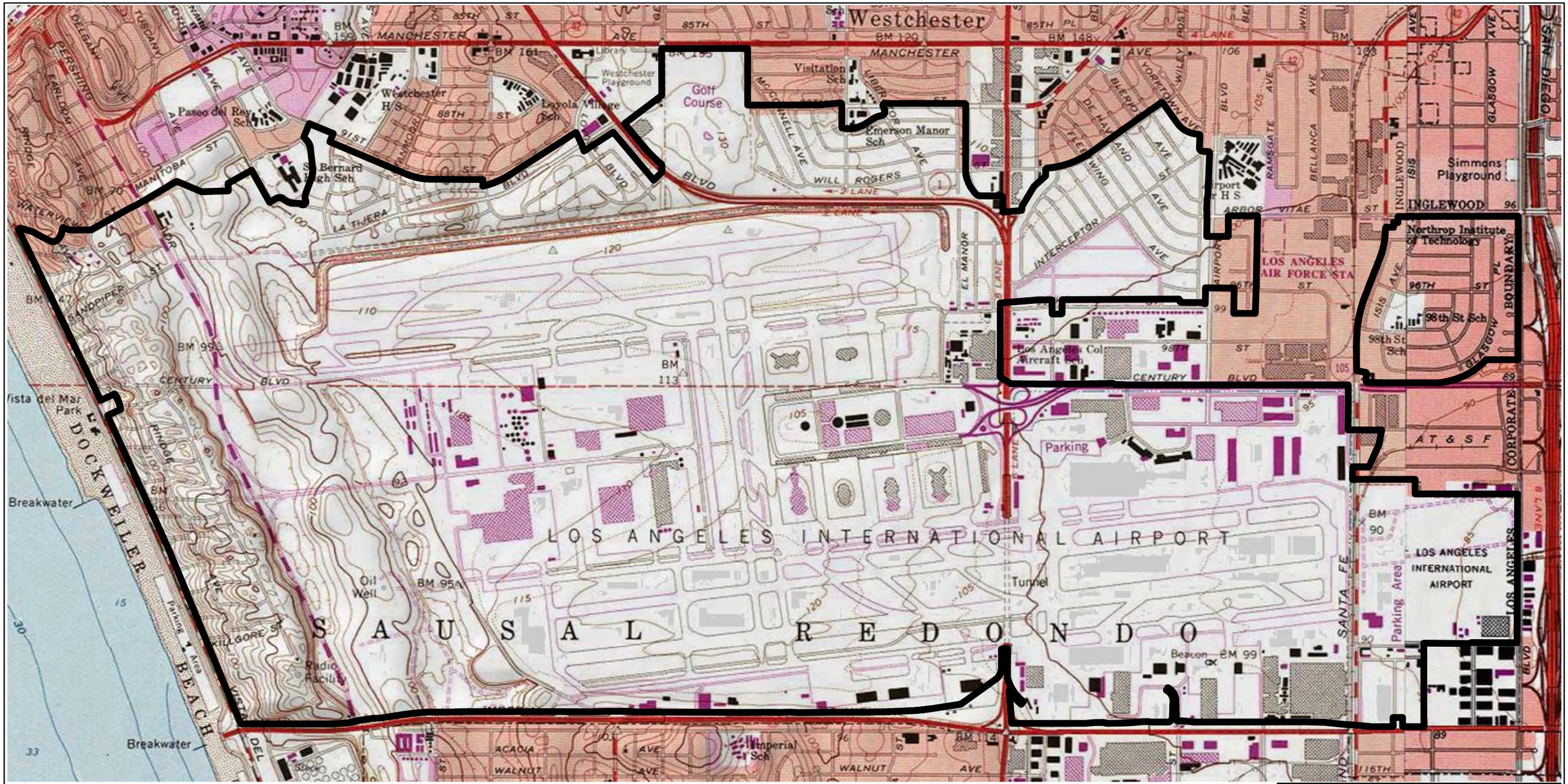
north

Source: ESRI World Street Map
Prepared by: Glenn Lukos Associates, 2011

Legend

Airport Property Line

LAX Specific Plan Amendment Study Draft EIR	**Project Site Location Map**	Figure **1**



0 1,500 ft
Scale

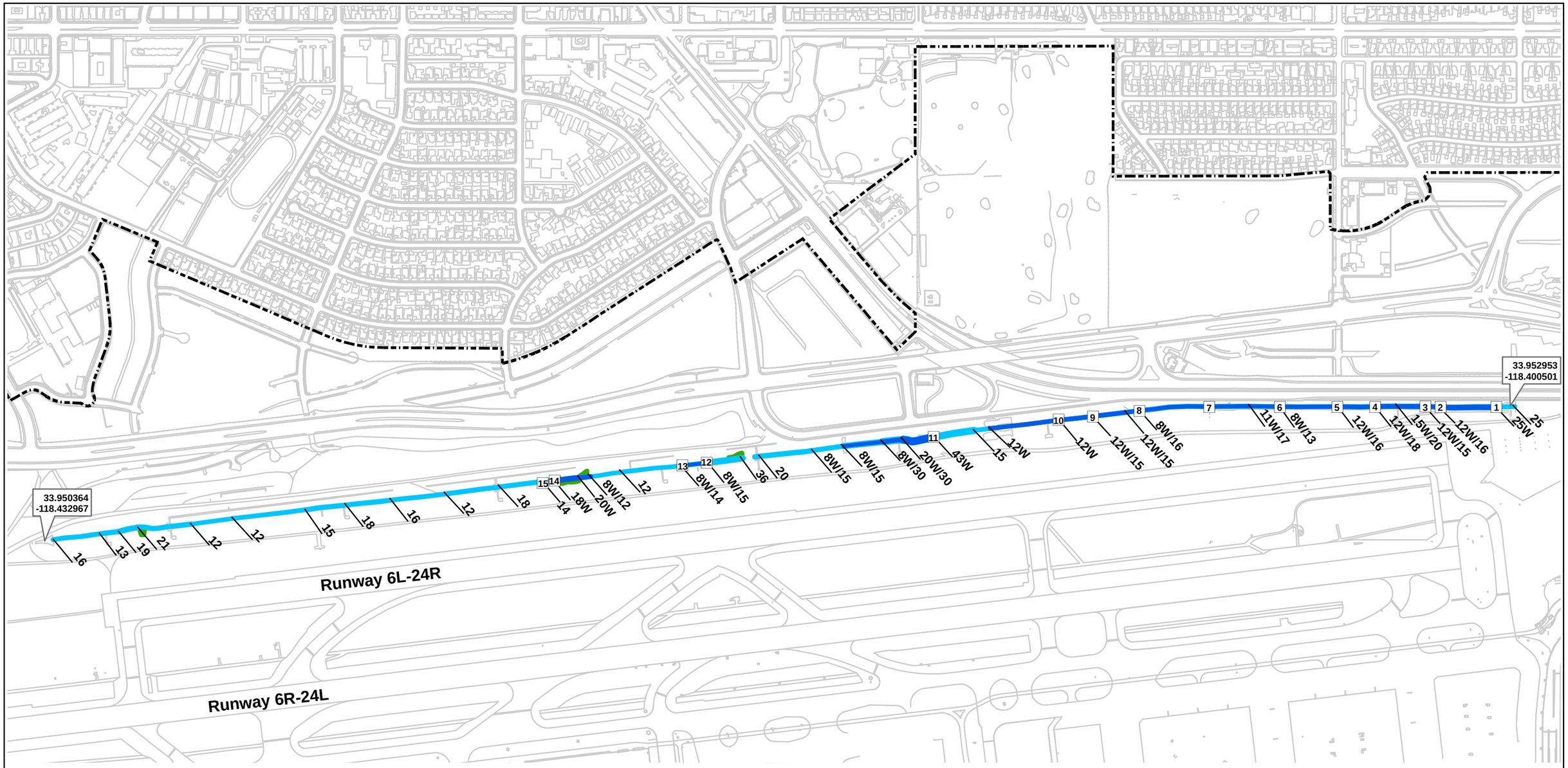
north

Source: USGS TOPO! Maps
Prepared by: Glenn Lukos Associates, 2011

Legend

Airport Property Line

LAX Specific Plan Amendment Study Draft EIR	**U.S. Geological Survey Topographic Map**	Figure **2**



1 inch = 650 feet

0 650 ft

Scale

north

Source: Glenn Lukos Associates; Ricondo & Associates, 2011.
Prepared by: Glenn Lukos Associates, 2012.

Legend

- Airport Property Line
- USACOE Non-Wetlands Waters/ CDFG Unvegetated Streambed
- USACOE Wetlands/CDFG Riparian
- CDFG Riparian Only
- 1 Data Pit Location
- 12W/15 Width in Feet (W indicates wetland)

LAX Specific Plan Amendment Study Draft EIR	**Delineation Map**	Figure **3**

Photograph 1: View of wetland area within Argo Drainage Channel typical of areas of storm drain discharge.

Photograph 2: View of Argo Drainage Channel looking west. Note predominance of upland non-native grasses.

Photograph 3: View of reach of Argo Drainage Channel dominated by upland non-native yellow star thistle.

Photograph 4: View of mostly unvegetated Argo Drainage Channel characteristic of western one-quarter of feature.

Source: Glenn Lukos Associates, 2011.
Prepared by: Glenn Lukos Associates, 2012.

LAX Specific Plan Amendment Study Draft EIR	**Argo Drainage Channel Photographs**	Figure **4**

2.2 Field Methodology

Potential jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils, and hydrology. Potential wetland habitats on the site were evaluated using the methodology set forth in the USACOE 1987 Wetland Delineation Manual[7] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (Arid West Supplement).[8] While in the field, the limits of USACOE and CDFG jurisdiction were recorded onto a 100-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The potential for hydric soils in the context of a wetland delineation is typically evaluated by both an examination of hydric soil characteristics encountered in the field, and by examining soil maps and comparing the soil types mapped to lists of hydric soil types known for a given area. However, because of the long history of urban development within and surrounding the biological resources study area, no soil maps are available for the biological resources study area. Therefore, detection of hydric soils for the biological resources study area is limited to the field analysis.

3. JURISDICTION

3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the USACOE regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in USACOE regulations at 33 CFR Part 328.3(a) as:

(1) All 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;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:

  (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

  (ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or

  (iii) Which are used or could be used for industrial purpose by industries in interstate commerce...

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section;

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

8 U.S. Army Corps of Engineers, Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), 2008.

> Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States;
>
> (8) Waters of the United States do not include prior converted cropland.[9] Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

In the absence of wetlands, the limits of USACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM), which is defined at 33 CFR 328.3(e) as:

> ...that line on the shore established by the fluctuation 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.

3.1.1 Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, the USACOE published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Delineation Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[10]);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Wetland Delineation Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.1.2 U.S. Fish and Wildlife Service Wetland Definition

The U.S. Fish and Wildlife Service (USFWS) definition of wetlands is set forth in Classification of Wetlands and Deepwater Habitats of the United States:[11]

> WETLANDS are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this

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9 The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season…." [Emphasis added.]

10 Reed, P.B., Jr., "National List of Plant Species that Occur in Wetlands", U.S. Fish and Wildlife Service Biological Report 88(26.10), 1988.

11 Cowardin, Lewis M, Virginia Carter, Francis C. Golet, and Edward T. LaRoe, Classification of Wetlands and Deepwater Habitats of the United States, 1979.

> classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

Following the wetland definition, the following clarification/guidance is provided by USFWS:

> The term wetland includes a variety of areas that fall into one of five categories: (1) areas with hydrophytes and hydric soils, such as those commonly known as marshes, swamps, and bogs; (2) areas without hydrophytes but with hydric soils--for example, flats where drastic fluctuation in water level, wave action, turbidity, or high concentration of salts may prevent the growth of hydrophytes; (3) areas with hydrophytes but nonhydric soils, such as margins of impoundments or excavations where hydrophytes have become established but hydric soils have not yet developed; (4) areas without soils but with hydrophytes such as the seaweed-covered portion of rocky shores; and (5) wetlands without soil and without hydrophytes, such as gravel beaches or rocky shores without vegetation.

Of the five categories noted in the USFWS definition, only (1) and (3) above, exhibit potential for occurrence in the Argo Drainage Channel. Based on the field investigation conducted in the Argo Drainage Channel, no areas within the Argo Drainage Channel support hydrophytes while lacking hydric soils. As such, all of the wetlands within the Argo Drainage Channel are consistent with (1) above.

3.2 Regional Water Quality Control Board

Subsequent to the decision in the Solid Waste Agency of Northern Cook County (SWANCC) v. USACOE (SWANCC decision), the Chief Counsel for the State Water Resources Control Board (SWRCB) issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[12] The memorandum states:

> California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…
>
> The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states….
>
> Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted, California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification….

[12] Wilson, Craig M., Memorandum Addressed to State Board Members and Regional Board Executive Officers, January 25, 2001.

In this memorandum, the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act. However, while providing a recounting of the Act's definition of waters of the United States, this memorandum fails to also reference the Act's own definition of waste:

> "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

The lack of inclusion of a reference to "fill material," "dirt," "earth," or other similar terms in the Act's definition of "waste," or elsewhere in the Act, suggests that no such association was intended. Thus, the Chief Counsel's memorandum signals that the SWRCB is attempting to retain jurisdiction over discharge of fill material into isolated waters of the United States by administratively expanding the definition of "waste" to include "fill material" without actually seeking amendment of the Act's definition of waste (an amendment would require action by the state legislature). Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the USACOE pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

3.3 California Department of Fish and Game

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFG 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 surface or subsurface flow that supports or has supported riparian vegetation." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the USACOE. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

In conjunction with adopting a wetlands policy on March 9, 1987 the California Fish and Game Commission assigned CDFG the task of recommending a wetlands definition. CDFG found the USFWS Cowardin et al. wetland definition and classification system to be the most biologically valid and has adopted this definition as a guide in identifying wetlands.

4. RESULTS

The only jurisdictional feature associated with the biological resources study area is the Argo Drainage Channel. The Argo Drainage Channel is a drainage feature constructed to carry storm flows through the airport property and is located approximately 450 to 500 feet north of Runway 6L/24R. The feature originates near the northeast corner of the airport, immediately south of Lincoln Boulevard and east of the eastern limits of Runway 6L/24R, where a concrete outlet structure discharges storm water and nuisance water into the feature. Flows travel from east to west for a distance of approximately 9,800 feet and leave the site at a concrete inlet located approximately 300 feet beyond the western terminus of Runway 6L/24R. A review of historical topographic maps and aerial photographs[13] conducted for the LAX Master Plan EIR indicated that the Argo Drainage Channel is a man-made flood control structure that was constructed circa 1949. The Argo Drainage Channel does not connect to any river, stream, or lake, but has been determined to flow into the Pacific Ocean through connections with the City of Los Angeles' storm drain system.[14]

The Argo Drainage Channel varies in depth from approximately 30 to 35 feet and the slopes support upland (UPL) ruderal vegetation dominated by wild oats (*Avena fatua*, UPL), ripgut (*Bromus diandrus*, UPL), fountain grass (*Pennisetum setaceum*, UPL), deerweed (*Acmispon glaber*, UPL), wild radish (*Raphanus sativus*, UPL), Russian thistle (*Salsola tragus*, UPL), yellow-star thistle (*Centaurea solstitialis*, UPL), giant horseweed (*Erigeron canadensis*, facultative [FAC]), telegraph weed (*Heterotheca grandiflora*, UPL), white sweet-clover (*Melilotus albus*, facultative upland [FACU]), and Spanish clover (*Lotus purshianus*, UPL).

Flows are confined to the bottom of the drainage channel, which varies in width from 12 to 43 feet. Wetlands occur within the majority of the eastern 5,900 feet of the drainage channel and are supported by a combination of storm discharge and nuisance flow. In addition to the storm-drain outlet at the eastern origin of the channel, smaller storm-drain discharge points occur at various points along the Argo Drainage Channel, with the wettest areas concentrated at the discharge points. As such, the wetlands within the Argo Drainage Channel exhibit a range of characteristics, with areas at the discharge points characterized by strong wetland indicators, which weaken with distance from areas of storm or nuisance discharge.

The wettest areas support a predominance of obligate (OBL) wetland plants such as California bulrush (*Schoenoplectus californicus*, OBL), willow smartweed (*Persicaria lapathifolium*, OBL), southern cattail (*Typha domingensis*, OBL), and pale spike-rush (*Eleocharis palustris*, OBL). These areas also exhibit strong indicators for hydric soils such as Black Histic (A3) or Hydrogen Sulfide (A4). The presence of wetland hydrology in these areas was indicted by standing water or soil saturation in the upper 12 inches.

Wetlands within the other portions of the Argo Drainage Channel support a predominance of plants ranging from OBL to FAC with willow smartweed (*Persicaria lapathifolia*, OBL) common along with California bulrush (*Schoenoplectus californicus*, OBL), barnyard grass (*Echinochloa crus-galli*, facultative wet [FACW]), tall umbrella sedge (*Cyperus eragrostis*, FACW), giant horseweed (*Erigeron canadensis*, FAC), and English plantain (*Plantago lanceolata*, FAC). Soils in these areas exhibit low chroma matrix with redox concentrations (Redox Dark Surface F6). Indicators for the presence of wetland hydrology included Soil Saturation (A3), Soil Surface Cracks (B6), or two or more secondary indicators such as Sediment Deposits (B2) and Drainage Patterns (B10).

Limited areas of sandbar willow thicket were identified on the banks of the Argo Drainage Channel, typically immediately above some of the wetter storm drain outlets, where the presence of water is more reliable. Where they occur on the slopes, the willow scrub is dominated by sandbar willow (*Salix exigua*, OBL).

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13 Sapphos Environmental, Inc., Memorandum for the Record (JN 1067-004.M18), Recommendations for Addressing Regulatory Compliance Issues Related to Areas Subject to the Jurisdiction of the U.S. Army Corps of Engineers and the California Department of Fish and Game at Los Angeles International Airport, City of Los Angeles, California, 1997.

14 Bapna, Victor, County of Los Angeles Department of Public Works, Personal Communication, August 2000.

At approximately 5,900 feet from the eastern origin of the drainage, the wetlands disappear as the conditions become much drier due to the absence of inlet structures discharging storm flows and nuisance flows. The channel width varies in this reach from 12 to 21 feet and the channel bottom is either unvegetated sand or areas vegetated with a predominance of herbaceous upland species including yellow starthistle (*Centaurea solstitialis*, UPL), long-beaked filaree (*Erodium botrys*, UPL), ripgut (*Bromus diandrus*, UPL), wild oats (*Avena fatua*, UPL), and Italian ryegrass (*Lolium multiflorum*, UPL).

4.1 USACOE Jurisdiction

USACOE jurisdiction associated with the biological resources study area totals approximately 3.78 acres of waters of the United States, of which approximately 1.33 acres consist of wetlands. The boundaries of the waters of the United States are depicted on the enclosed **Figure 3**. Areas of potential USACOE jurisdiction (i.e., areas that exhibit either an OHWM or three criteria wetlands) total 3.78 acres, of which 2.45 acres consist of non-wetland waters and 1.33 acres consist of wetlands as described above. In all cases, wetlands within the Argo Drainage Channel are confined to areas within the OHWM of the drainage.

4.2 Regional Water Quality Control Board Jurisdiction

If the USACOE asserts jurisdiction over the Argo Drainage Channel, the Regional Water Quality Control Board (RWQCB) would review the project pursuant to Section 401 of the Clean Water Act as necessary for issuance of a Section 401 Water Quality Certification. Should the USACOE determine that the Argo Drainage Channel is not a water of the U.S., then the RWQCB would assert jurisdiction over the Argo Drainage Channel in accordance with the Porter Cologne Act. In either case, the RWQCB jurisdiction would be coincident with the limits of potential USACOE jurisdiction as described above.

4.3 CDFG Jurisdiction

Areas of potential CDFG jurisdiction total approximately 3.97 acres, of which 1.52 acres consist of vegetated riparian habitat, including 1.31 acres of California bulrush marsh and 0.21 acre of sandbar willow thicket.

5. IMPACT ANALYSIS

There are nine project alternatives associated with SPAS. Of the nine alternatives, Alternatives 2, 3, 4, 7, 8, and 9 would completely avoid impacts to USACOE and CDFG jurisdiction associated with the Argo Drainage Channel. Under Alternatives 1, 5, and 6, Runway 6L/24R would be relocated to the north of its current location, requiring that all or part of the Argo Drainage Channel be structurally covered to varying degrees depending on the alternative, thereby impacting some portion of the USACOE and CDFG jurisdiction associated with the Argo Drainage Channel.

Under Alternatives 1 and 5, the entire length of the channel would be structurally covered (converted to a concrete box culvert), impacting 3.78 acres of USACOE jurisdiction, of which approximately 1.33 acres consist of wetlands, and 3.97 acres of CDFG jurisdiction, of which 1.52 acres is vegetated riparian habitat.

Under Alternative 6, the eastern 1,400 feet of the channel would be structural covered. Impacts would include 0.56 acre of USACOE jurisdiction, of which 0.41 acre consists of wetlands, and 0.56 acre of CDFG jurisdiction, of which 0.41 acre is vegetated riparian habitat.

Attachment 1
Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 1
Investigator(s): TBornkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: NAD 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? ND Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? ND (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 X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___
Is the Sampled Area within a Wetland? Yes X No ___
Remarks:

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' diameter)			
1. Echinochloa crus-galli	50%	Y	FACW
2. Cyperus eragrostis	10%	N	FACW
3. Polygonum lapathifolium	10%	N	OBL
4.			
5.			
6.			
7.			
8.			
	0% = Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0% Total Cover		

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

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 10	x1 = 10
FACW species 90	x2 = 180
FAC species ___	x3 = ___
FACU species ___	x4 = ___
UPL species ___	x5 = ___
Column Totals: 100 (A)	190 (B)

Prevalence Index = B/A = 1.9

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ___

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 2/1	100	NONE		NONE		MIX OF loam w/ embedded clays and sandy layers	

[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)
X 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)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ 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 X No ___ Depth (inches): 2"
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___
Wetland Hydrology Present? Yes X No ___

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

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 2
Investigator(s): TBornkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: NAD 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? ND Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? ND (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 X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___
Is the Sampled Area within a Wetland? Yes X No ___
Remarks:

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' diameter)			
1. Echinochloa crusgalli	70%	Y	FACW
2. Polygonum lapathifolium	30%	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	100% Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	100% Total Cover		

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

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ___	x1 = ___
FACW species ___	x2 = ___
FAC species ___	x3 = ___
FACU species ___	x4 = ___
UPL species ___	x5 = ___
Column Totals: ___ (A)	___ (B)

Prevalence Index = B/A = ___

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 X No ___

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	Unsectioned	NONE				MIX OF Sands, loam + clay	

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

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ 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 X No ___ Depth (inches): 3"
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___
Wetland Hydrology Present? Yes X No ___

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

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 3
Investigator(s): TBonnlamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417286° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam)			
1. Echinochloa crus-galli	5%	Y	FACW
2. Polygonum lapathifolium	20%	Y	OBL
3. Brassica geniculata	5%	Y	UPL
4.			
5.			
6.			
7.			
8.			
	30% Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	30% 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: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 20	x1 = 20
FACW species 5	x2 = 10
FAC species ____	x3 = ____
FACU species ____	x4 = ____
UPL species 5	x5 = 25
Column Totals: 30 (A)	55 (B)

Prevalence Index = B/A = 1.83

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	Sand (NOT Colored)		5YR 4/6	7%	C	M	Sand	

[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)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ Water Marks (B1) (Riverine)
___ Sediment Deposits (B2) (Riverine)
X Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (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:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 4
Investigator(s): TBonnlamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417286° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam)			
1. Echinochloa crus-galli	20%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20% Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	20% Total Cover		

% Bare Ground in Herb Stratum 80% % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x1 = ____
FACW species 20	x2 = 40
FAC species ____	x3 = ____
FACU species ____	x4 = ____
UPL species ____	x5 = ____
Column Totals: 20 (A)	40 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5Y 3/1	90	5YR 4/6	10	C	M	Loam with Sands & Clays interspersed	

[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)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ Water Marks (B1) (Riverine)
___ Sediment Deposits (B2) (Riverine)
X Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (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:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 5
Investigator(s): TBonnKamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED. Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam.)			
1 Echinochloa crus-galli	30%	Y	FACW
2 Polygonum lapathifolium	40	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	70% = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	70% = 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: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 40	x 1 =	40
FACW species 30	x 2 =	60
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 70 (A)		100 (B)

Prevalence Index = B/A = 1.43

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	2.5Y 3/1	95	5Y 4/6	5	C	M	Sandy loam	
5-24	Oxidized Sand							

[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)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
__ Sediment Deposits (B2) (Riverine)
X 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:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 6
Investigator(s): TBonnKamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED. Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' Diam)			
1. Polygonum lapathifolium	40%	Y	OBL
2. Echinochloa crus-galli	40%	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	80 = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 40	x 1 =	40
FACW species 40	x 2 =	80
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 80 (A)		120 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5Y 3/1	95	5Y 4/6	5	C	M	Sandy loam	
6-12	Sand w/	Faint	Redox	scattered				

[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)
X Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
__ Sediment Deposits (B2) (Riverine)
__ Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Shallow Aquitard (D3)
__ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (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:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 7
Investigator(s): TBornkamp/J Fitzgibbon Section, Township, Range: UNSECTIONED
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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: Based on vegetation + soils, this area is NOT saturated for sufficient duration to meet minimal Hydrology Threshold

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' diam)			
1. Polygonum lapathifolium	30%	Y	OBL
2. Bolium multiflorum	65%	Y	UPL
3. Plantago lanceolata	5%	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	100 = Total Cover		
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 30	x1 = 30
FACW species ____	x2 = ____
FAC species 5	x3 = 15
FACU species ____	x4 = ____
UPL species 65	x5 = 325
Column Totals: 100 (A)	370 (B)

Prevalence Index = B/A = 3.7

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:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5Y 3/2	100	NONE				Loamy sand	
4-22	Sand		NONE					

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5) (LRR C)
__ 1 cm Muck (A9) (LRR D)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
__ Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
X Sediment Deposits (B2) (Riverine)
X Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Shallow Aquitard (D3)
__ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____
Wetland Hydrology Present? Yes ____ No X

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

Remarks: See note on opposite page

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 8
Investigator(s): TBornkamp/J Fitzgibbon Section, Township, Range: UNSECTIONED
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam)			
1. Polygonum lapathifolium	85	Y	OBL
2. Sarcops California	15	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	100 = Total Cover		
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 100	x1 = 100
FACW species ____	x2 = ____
FAC species ____	x3 = ____
FACU species ____	x4 = ____
UPL species ____	x5 = ____
Column Totals: 100 (A)	100 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5Y 3/1	80	7.5YR 4/6	20	C	M	Sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5) (LRR C)
__ 1 cm Muck (A9) (LRR D)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ 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 X No ____ Depth (inches): 60
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 10"
Wetland Hydrology Present? Yes X No ____

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

Remarks:

US Army Corps of Engineers — Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 9
Investigator(s): TBornkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam)			
1. Plantago lanceolata	80%	Y	FAC
2. Lolium multiflorum	10	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	90 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
X 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 X No ____
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR3/2	100	10YR	NONE			Loamy Sand	
5-12	10YR3/2	95	7.5Y 4/4	5	C	M	Sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5) (LRR C)
__ 1 cm Muck (A9) (LRR D)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
__ Sediment Deposits (B2) (Riverine)
__ Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Shallow Aquitard (D3)
__ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? Yes ____ No X Depth (inches): ____
(includes capillary fringe)
Wetland Hydrology Present? Yes X No ____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 10
Investigator(s): TBornkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' Diam)			
1. Polygonum lapathifolium	50%	Y	OBL
2. Lolium multiflorum	30%	Y	UPL
3. Plantago lanceolata	10%	no	FAC
4.			
5.			
6.			
7.			
8.			
	90% Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	90 = Total Cover		

% Bare Ground in Herb Stratum 10% % Cover of Biotic Crust 5

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 50	x 1 = 50
FACW species ____	x 2 = ____
FAC species 10	x 3 = 20
FACU species ____	x 4 = ____
UPL species 30	x 5 = 150
Column Totals: 90 (A)	220 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50% NO
X 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 X No ____
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR3/2	85	5YR3/4	15	C	M	Sandy Loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5) (LRR C)
__ 1 cm Muck (A9) (LRR D)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
__ Sediment Deposits (B2) (Riverine)
X Drift Deposits (B3) (Riverine)
__ Drainage Patterns (B10)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Shallow Aquitard (D3)
__ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? Yes ____ No X Depth (inches): ____
(includes capillary fringe)
Wetland Hydrology Present? Yes X No ____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 11
Investigator(s): TBomkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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' diam.)			
1. Echinochloa crus-galli	75	Y	FACW
2. Cyperus eragrostis	5	No	FACW
3. Salix exigua	5	Y	OBL
4. Setaria sp.	5	No	NA
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	90 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	5	x 2 =	10
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	85 (A)		90 (B)

Prevalence Index = B/A = 1.05

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 2.5/1	60	5 YR 4/6	40	C	M	Sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
X Black Histic (A3)
X 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)
X Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)
__ 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 X No ____ Depth (inches): 2 1/2"
Water Table Present? Yes X No ____ Depth (inches): surface
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): surface
Wetland Hydrology Present? Yes X No ____

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

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 12
Investigator(s): TBomkamp/J. Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417236° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____
Remarks:

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' diam.)			
1. Scirpus Californicus	50	N	OBL
2. Eleocharis palustris	10	Y	OBL
3. Echinochloa crus-galli	5	N	FACW
4. Polygonum lapathifolium	5	N	OBL
5. Plantago lanceolata	5	N	FAC
6. Typha dominguensis	10	No	OBL
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	70 = 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: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	70 (A)		85 (B)

Prevalence Index = B/A = 1.2

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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 X No ____

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 2.5/1	100	NA					

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

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: NONE
Depth (inches): NA

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)
__ 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 X No ____ Depth (inches): 2" deep
Water Table Present? Yes X No ____ Depth (inches): ↓
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): ↓
Wetland Hydrology Present? Yes X No ____

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

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 13
Investigator(s): TBornkamp/J Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417286° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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' diam)			
1. Polygonum lapathifolium	40	Y	OBL
2. Plantago lanceolata	10	n	FAC
3. Conyza Canadensis	5	n	FAC
4.			
5.			
6.			
7.			
8.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	55 = Total Cover		

% Bare Ground in Herb Stratum 45% % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species		x 2 =	
FAC species	15	x 3 =	45
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	55 (A)		85 (B)

Prevalence Index = B/A = 1.55

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[2] (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 X No ____

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	2.5Y 3/1	100	NONE				Sandy Loam	
5-14	2.5Y 3/2	75	7.5YR 4/4	25	C	M	Loamy Sand	

[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)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: ____
Depth (inches): NONE
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ Water Marks (B1) (Riverine)
___ Sediment Deposits (B2) (Riverine)
X Drift Deposits (B3) (Riverine)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes X No ____ Depth (inches): ____
Water Table Present? Yes X No ____ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): ____
Wetland Hydrology Present? Yes X No ____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 14
Investigator(s): TBornkamp/J Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED Lat: 33.951907° Long: -118.417286° Datum: WGS 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (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 X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes ____ No ____
Remarks:

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. Salix exigua	10	Y	OBL
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 10' diam)			
1. Polygonum lapathifolium	60%	Y	OBL
2. Typha domingensis	5%	n	OBL
3. Scirpus Californicus	5%	n	OBL
4. Echinochloa crus-galli	5	no	FACW
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	85 = 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: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	5	x 2 =	10
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	85 (A)		90 (B)

Prevalence Index = B/A = 1.06

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[2] (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 X No ____

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: 14

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5 2.5/1		Areas OF Gleyed Sand in Sand				Sand + Organics	

[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)
X Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
X Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
___ 1 cm Muck (A9) (LRR C)
___ 2 cm Muck (A10) (LRR B)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: ____
Depth (inches): ____
Hydric Soil Present? Yes X No ____
Remarks:

HYDROLOGY

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

Secondary Indicators (2 or more required)
___ Water Marks (B1) (Riverine)
___ Sediment Deposits (B2) (Riverine)
___ Drift Deposits (B3) (Riverine)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes X No ____ Depth (inches): 26"
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 20"
Wetland Hydrology Present? Yes X No ____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

US Army Corps of Engineers Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAX/ARGO Ditch City/County: Los Angeles Sampling Date: 7-7-11
Applicant/Owner: LAWA State: CA Sampling Point: 15
Investigator(s): TBowlkamp/J Fitzgibbon Section, Township, Range: Unsectioned
Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): NONE Slope (%): ≈2%
Subregion (LRR): MED. Lat: 33.951907° Long: -118.417236° Datum: NAD 1984
Soil Map Unit Name: NA NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X
Is the Sampled Area within a Wetland? Yes ____ No X
Remarks: THE channel IS similar From Pt 15 to storm drain inlet at WEST end

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' Diam)			
1. Erodium botrys	30%	Y	UPL
2. Centaurea Solstitialis	30%	Y	UPL
3. Bromus diandrus	30	Y	UPL
4. Lolium Multiflorum	5	N	UPL
5. Avena Sativa	5	N	UPL
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50% NO
__ 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:

US Army Corps of Engineers — Arid West – Version 2.0

SOIL

Sampling Point: 15

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	Sandy loam	10YR 3/2	NO Redox					

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5) (LRR C)
__ 1 cm Muck (A9) (LRR D)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Loamy Mucky Mineral (F1)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
__ Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)
__ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:
__ 1 cm Muck (A9) (LRR C)
__ 2 cm Muck (A10) (LRR B)
__ Reduced Vertic (F18)
__ Red Parent Material (TF2)
__ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: ____
Depth (inches): NONE
Hydric Soil Present? Yes ____ No X

Remarks: NO Hydric INDICATORS

HYDROLOGY

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

Secondary Indicators (2 or more required)
__ Water Marks (B1) (Riverine)
__ Sediment Deposits (B2) (Riverine)
__ Drift Deposits (B3) (Riverine)
__ Drainage Patterns (B10)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Shallow Aquitard (D3)
__ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____
Wetland Hydrology Present? Yes ____ No X

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

Remarks: Soils very Sandy + well Drained

US Army Corps of Engineers — Arid West – Version 2.0

Attachment 2
Preliminary Jurisdictional Determination Form

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: Los Angeles District | File/ORM #: | PJD Date: Jun 5, 2012

State: CA | City/County: Los Angeles

Nearest Waterbody: Pacific Ocean

Location: TRS, LatLong or UTM: 33.950364 -118.432967

Name/ Address of Person Requesting PJD: Los Angeles World Airports
One World Way
Los Angeles, California 90045

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 5,306 linear ft | 20' width | 2.45 acres | Stream Flow: Per. (seasonal)

Wetlands: 1.33 acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: none | Non-Tidal: none

☐ Office (Desk) Determination
☐ Field Determination: | Date of Field Trip: TBD

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: included in JD Report
- ☑ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study: not applicable
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☑ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Venice, Inglewood
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: not available
- ☐ National wetlands inventory map(s). Cite name: not applicable
- ☐ State/Local wetland inventory map(s): not applicable
- ☑ FEMA/FIRM maps: Flood Panel 06037C1760F
- ☐ 100-year Floodplain Elevation is: not available
- ☐ Photographs: ☑ Aerial (Name & Date): Google Earth 2011
  ☑ Other (Name & Date): Ground Photographs in 2011 JD Report
- ☑ Previous determination(s). File no. and date of response letter: 980015100JLB
- ☑ Other information (please specify): Argo Ditch has wetlands and ephemeral areas

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

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	Los Angeles District	File/ORM #		PJD Date:	Jun 5, 2012
State	CA	City/County	Los Angeles	Person Requestinq PJD	Los Angeles World Airports

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
1	33.950364	-118.432967	Palustrine, emergent	1.33 acres	Emergent Wetlands
1	33.950364	-118.432967	Riverine	2.45 acres	Ephemeral Channel

Notes:

The Argo Drainage Channel includes areas of emergent marsh typically associated with drainage outfalls and associated dry-weather flows and areas of dry ephemeral channel that are unvegetated or vegetated with upland weeds.