David Magney Environmental Consulting

MOJAVE RIVER WATERSHED MITIGATION BANK: DELINEATION OF JURISDICTIONAL WETLANDS



Prepared for: U.S. ARMY CORPS OF ENGINEERS, REGULATORY DIVISION

> On Behalf of: RICHARD LYONS & LAURIE PRANGE LYONS

> > August 2014, Revised September 2015

Mission Statement: To provide quality environmental consulting services with integrity that protect and enhance the human and natural environment

www.magney.org



Mojave River Watershed Mitigation Bank Delineation of Jurisdictional Wetlands

Prepared for:

U.S. Army Corps of Engineers

Los Angeles Regulatory Division 915 Wilshire Blvd., Suite 930 Los Angeles, California 90017-3401 Contact: Veronica Li Phone: 213/452-3292

Prepared on Behalf of:

RICHARD AND LAURIE PRANGE LYONS

P.O. Box 808 Santa Paula, California 93061

Prepared by:

Bavid Magney Environmental Consulting

P.O. Box 1346 Ojai, California 93024-1346 Contact: David L. Magney 805/646-6045

18 August 2014, revised 22 February2015, 31 May 2015, 27 July 2015, updated 30 September 2015

www.magney.org

Cover Photo: View of southern portion of East Cronese Lake with the Soda Mountains in the background. The dominant vegetation in the foreground is *Atriplex torreyi* Provisional Shrubland Alliance.

This document should be cited as:

^{David Magney Environmental Consulting. 2015. Delineation of Jurisdictional Wetlands of the Lyons Property, East Cronese Lake, San Bernardino County, California (APNs 054-3-201-41, -201-42, -201-34, -171-54, -161-44, & -161-46). 18 August 2014, revised 22 February 2015, 31 May, 27 July, updated 30 September 2015. (PN 12-0004) Ojai, California. Prepared for U.S. Army Corps of Engineers, Regulatory Branch, Los Angeles, California, on behalf of Richard and Laurie Prange Lyons, Santa Paula, California.}



TABLE OF CONTENTS

Page

SECTION I. PROJECT DESCRIPTION	1
PROJECT LOCATION	1
PROJECT BACKGROUND	2
SECTION II. METHODOLOGY	9
GENERAL APPROACH	9
HABITAT CLASSIFICATION	9
DELINEATING CORPS-JURISDICTIONAL WETLANDS	9
Wetland Delineation	10
Wetland Criteria	23
Hydrophytic Vegetation	23
Wetland Hydrology	24
Hydric Soil	25
PROBLEMATIC INDICATORS	26
Problematic Situations of East Cronese Lake	28
Problematic Hydrophytic Vegetation	28
Problematic Hydric Soils	31
Problematic Hydrology	32
SECTION III. REGULATORY REQUIREMENTS	34
DEFINITION OF WATERS OF THE UNITED STATES	34
DEFINITIONS OF WETLANDS	35
SECTION IV. GENERAL SITE CONDITIONS	36
CRONESE BASIN	36
Southwestern Parcel	37
Southeastern Parcel	38
Eastern Parcel	39
Northern Parcels	40
FLORA	40
MAPPED WETLAND HABITATS	44
HABITAT TYPES PRESENT ONSITE	47
Palustrine Habitats	48
Riverine Habitats	49
Lacustrine Habitats	50
VEGETATION ALLIANCES OF EAST CRONESE VALLEY	53
Atriplex torreyi Provisional Shrubland Alliance	53
Prosopis glandulosa Woodland Alliance	54
Suaeda nigra Shrubland Alliance	55
Tamarix ramosissima Stand	56
Cressa truxillensis-Distichlis spicata Herbaceous Alliance	58
USFWS CLASSIFICATION OF WETLANDS	60
MAPPED SOIL UNITS	62



Rositas-Carrizo Association	62
Cajon-Arizo Association	62
Playas	62
Tecopa-Rock Outcrop-Lithic Torriorthents Association	63
SECTION V. WETLAND HABITATS DETERMINATION	66
RESULTS	66
SECTION VI. ACKNOWLEDGEMENTS	71
SECTION VII. REFERENCES CITED	72
PERSONAL COMMUNICATIONS	74
APPENDIX A. COMPLETED WETLAND DETERMINATION FIELD	
DATA FORMS (ARID WEST REGION)	A-1
APPENDIX B. COMPLETED CNPS RELEVÉ FIELD FORMS	B-1



LIST OF TABLES

Page

Table 1.	Mitigation Bank Parcels	1
Table 2.	Wetland Delineation Transect Characteristics	11
Table 3.	Wetland Delineation Single Sample Location Characteristics	11
Table 4.	Additional Indicators for Jurisdictional Delineation	25
Table 5.	Problematic Plant Species	30
Table 6.	pH and Conductivity of Selected Wetland Delineation Plots	31
Table 7.	Precipitation Data for Baker, California between 1981 and 2010	33
Table 8.	Plant Species Observed by DMEC (East Cronese Lake)	41
Table 9.	Soils/Plot Series at the Bank Site	65
Table 10	. Wetland Delineation Determinations for Surveyed Data Points	66
Table 11	. Acreage of Wetlands and Waters of the U.S. Onsite	68
Table 12	. Area of Wetland Habitats and Types of Proposed Mitigation of the Bank Site	69

LIST OF FIGURES

Page Figure 5. 1993 Landsat Imagery of the Bank Site.....7 Figure 9. Wetland Delineation Transects A, B, and C......16 Figure 10. Wetland Delineation Transect D......17



SECTION I. PROJECT DESCRIPTION

PROJECT LOCATION

The proposed Mojave River Watershed Mitigation Bank (Bank Site) is located in the Cronese Basin in the Mojave Desert in the central-northern portion of San Bernardino County, California, east of the City of Barstow and west of the community of Baker along Interstate 15 (I-15). (Cronese is also spelled Cronise on some maps.) The Bank Site is located north of the I-15 and east of the Cronese Mountains (Figure 1, General Mitigation Bank Site Location). The Bank Site is situated within the Cave Mountain and West Cronese Lake California Quadrangles (7.5-minute USGS maps) at the approximate geographic coordinates of 35.111°N latitude and 116.292°W longitude, NAD83. The Bank Site is at an elevation of approximately 1,075 feet to approximately 1,090 feet above mean sea level, from north to south. Wetlands onsite range in elevation from 1,075 to 1,085 feet above mean sea level.

The Bank Site is comprised of six (6) total parcels (Assessor's Parcel Numbers [APN] 054-3-161-44 054-3-161-46, 054-3-171-54, 054-3-201-34, 054-3-20141 and 054-3-20142). The sizes and reference names used for the purpose of discussion are provided in Table 1, Mitigation Bank Parcels, and illustrated in Figure 2, Mojave River Watershed Bank Parcels with 2010 Aerial Imagery. The combined parcels and reference names are illustrated in Figure 3, USGS 7.5-minute Quadrangles.

Assessor's Parcel Number	Name	Size (acres) ¹
054-3-161-44 (2 parts)	Southwestern	237.161
054-3-161-46 (2 parts)	Southwestern	59.666 ²
054-3-171-54	Southeastern	39.341
054-3-201-34	Eastern	20.051
054-3-201-41	Northern	40.087
054-3-201-42	Northern	39.993
Total	Bank Site	436.298

The largest contiguous piece is herein referred to as the Southwestern parcel, and includes two parcels (APNs 054-3-161-44 & 054-3-161-46) bisected by the Los Angeles Department of Water and Power (LADWP) transmission line corridor. The LADWP corridor contains two parallel electric transmission lines. The Southwestern parcel contains 16.182 acres of a permittee responsible mitigation (PRM) project that, although compatible with the proposed mitigation bank,

¹ Parcel sizes according to measurements calculated from the San Bernardino County Parcel database using ArcView 3.3 and ArcMap 10.2.

² 59.666 acres is the adjusted acreage to be included in the proposed mitigation bank. 75.848 acres is the total size of the parcel. The PRM area is 16.182 acres (excluded from the proposed mitigation bank).



is excluded, leaving 436.298 acres available for the Bank, as listed in Table 1 above. Two parcels (APNs 054-3-171-54 & 054-3-171-34) on the southeastern and eastern areas of East Cronese Lake measuring approximately 40 and 20 acres shall be referred to as the Southeastern and Eastern parcels, respectively. The northernmost two 40-acre parcels (APNs 054-3-201-41 & 054-3-201-42) are referred to as the Northern parcels. Hereafter, the six separate parcels will collectively be referred to as the "Bank Site". The six legal parcels are illustrated with their associated APNs and reference names in Figure 2.

The Bank Site is located on and around East Cronese Lake, within the Cronese Basin. East Cronese Lake functions as the terminus of the Mojave River³. Thus, much of the Cronese Basin is comprised of the Mojave River Delta and landforms associated with the low-gradient river terminus. This situation appears to be a somewhat unique and unstudied interaction between a large riverine system and an isolated lacustrine system in a very arid environment. Flooding of the Bank Site is visible in historic satellite imagery (Landsat, USGS 2014) as illustrated as follows: Figure 4, 2005 Landsat Imagery of the Bank Site; Figure 5, 1993 Landsat Imagery of the Bank Site; and Figure 6, 1984 Landsat Imagery of the Bank Site.

The wetland delineation was conducted along the shores of East Cronese Lake, the Mojave River to just above (south of) I-15, and tributary washes with clear and unclear connections to East Cronese Lake, which covers each of the Bank Site parcels and areas beyond but within East Cronese Valley. The surface extent of jurisdictional waters/wetlands⁴ on the Bank Site is approximately **419.7 acres** (435.9 acres total minus the 16.182 acres of PRM excluded), which is comprised of playa lakebottom, playa shoreline, ephemeral streambed, and floodplain. Approximately 838 linear feet of ephemeral washes exist in the northwest corner, southeast corner, and eastern edge of the Southwestern parcel, and to the east of the Northern and Eastern parcels (beyond the Bank Site). There are about 30,000 linear feet of washes in the Cronese Lake. The jurisdictional areas account for approximately 95% of the Bank Site, with only the northwest and southwest corners of the Southwestern parcel, a small area in the northeastern corner of the Northern parcel, and a small portion of the southeastern corner of the Southeastern parcel occupied by upland habitats. East Cronese Lake is a major distributary basin to the Mojave River.

PROJECT BACKGROUND

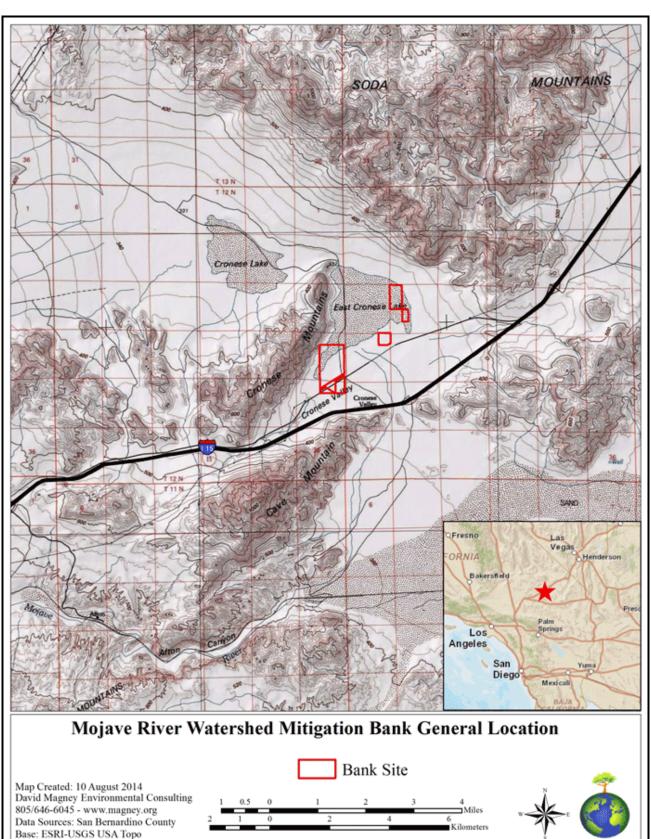
Richard and Laurie Prange Lyons (Lyons), are applying to the U.S. Army Corps of Engineers (Corps) and the California Department of Fish and Wildlife (CDFW) to establish a lacustrine and riverine/palustrine (riparian) wetland restoration and preservation mitigation bank for use by public and private entities to satisfy Corps, CDFW, and Regional Water Quality Control Board mitigation requirements. David Magney Environmental Consulting (DMEC) was contracted by Lyons to conduct the wetland delineation to provide a baseline of jurisdictional wetland area and types present on the Lyons properties making up the Bank Site. The delineation is also intended to identify waters of the State of California.

DMEC has also conducted a biological resources survey of the Bank Site (DMEC 2014a), which found a variety of plant communities and plant species, including several special-status species, as listed by the California Native Plant Society (CNPS).

³ Soda Lake is a secondary terminus of the Mojave River further east.

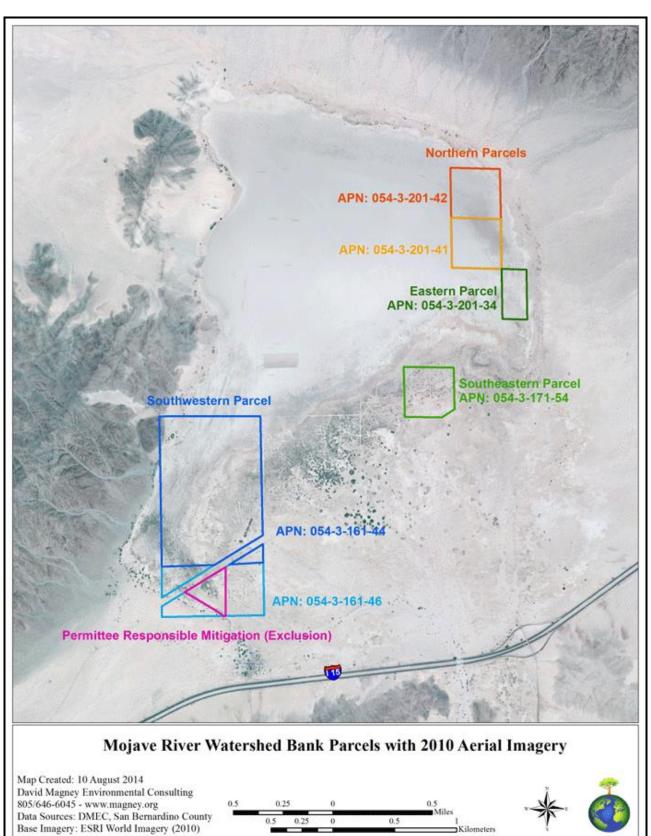
⁴ The total area of jurisdictional wetlands will be less than the 414.42 acres of Waters of the U.S., and provided later in the report.

 $[\]label{eq:loss_lyons_loss_lyons_ly$



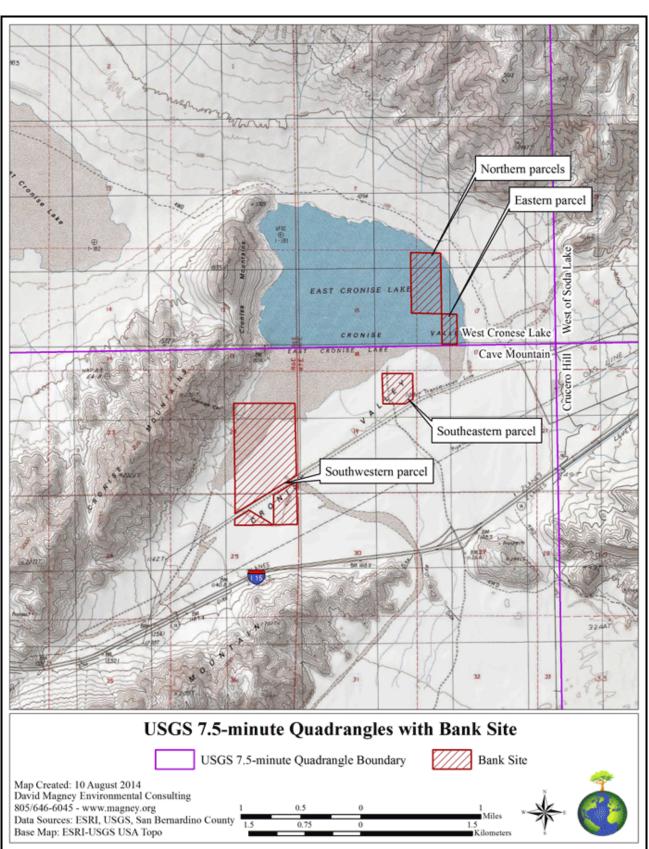


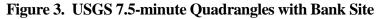
EC



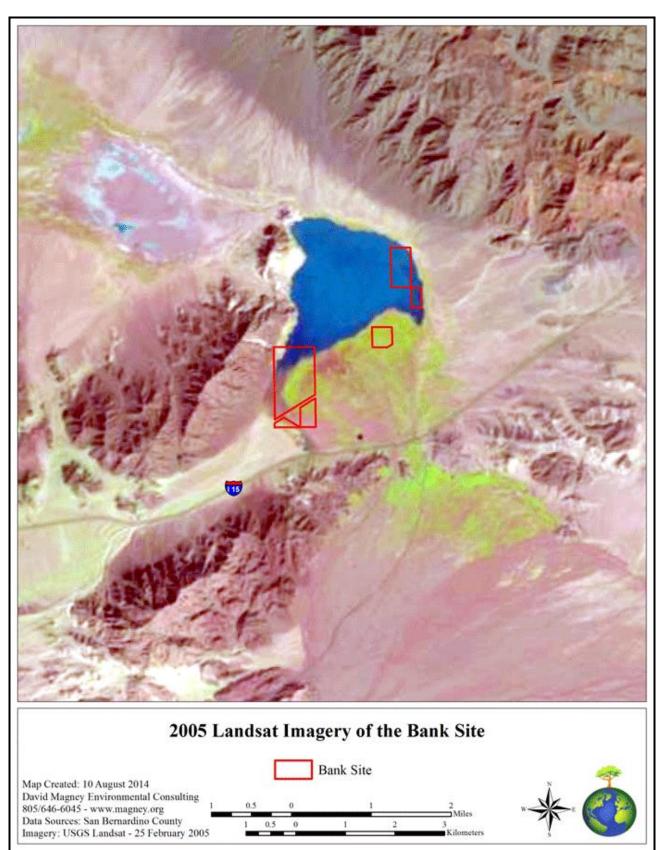


EO





HO



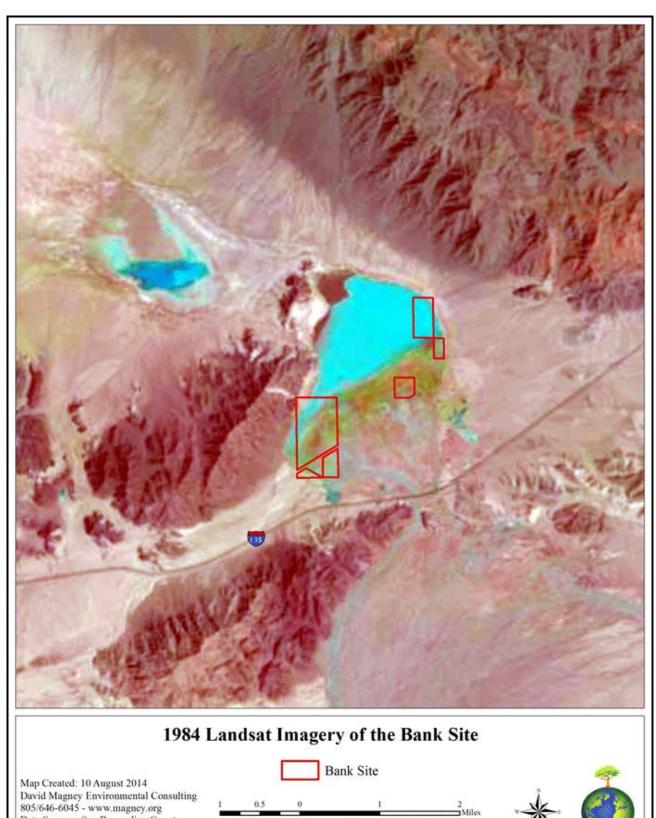


AEC





ÆC



Kilometers

Figure 6. 1984 Landsat Imagery of the Bank Site

HC

Data Sources: San Bernardino County

Imagery: USGS Landsat - 26 August 1984



SECTION II. METHODOLOGY

This section describes the methods used by DMEC to delineate waters of the U.S. (and the State of California), including wetlands, at the Bank Site. This section also includes a discussion of the general delineation approach, lists the references cited and followed for classification of the existing habitats observed onsite, and provides a detailed analysis of the wetland delineation criteria assessed by DMEC biologists.

GENERAL APPROACH

DMEC followed Corps wetland delineation methods (described in detail below) to determine the area of the Bank Site that falls under the Corps' definition of wetland habitats. The Bank Site was surveyed for wetlands and waters of the U.S. to determine the location, extent, and type of wetlands present. The Bank Site landscape was evaluated to generally classify the various plant communities that are located in the Cronese Basin, as well as those plant communities inhabiting the surrounding upland areas of the site.

Waters of the State are nearly identical to that for the Corps (U.S.); however, the State of California lacks a formal method to determine its area of jurisdiction other than as described in Section 1600 et seq. of the California Fish and Game Code. The Code identifies jurisdictional streams as areas with a clear bed and bank and adjacent riparian vegetation. Waters (wetlands) of the State are quite similar to that for the nation but can be more expansive in some circumstances. Furthermore, all streams and internally drained depressions are jurisdictional with the State while some such areas are not under Corps jurisdiction.

HABITAT CLASSIFICATION

The habitat types of the study area, and the plant communities making up those habitats, were mapped and classified according to California Native Plant Society's *A Manual of California Vegetation* (Sawyer et al. 2009). Specific Alliances and Associations not expressly described in Sawyer et al. (2009) are described here following Sawyer's et al. (2009) classification scheme and protocols. The wetland habitat was cross-referenced with the USFWS *Classification of Wetlands and Deepwater Habitats of North America* (Cowardin et al. 1979).

DELINEATING CORPS-JURISDICTIONAL WETLANDS

All plots of the study area were examined according to the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (Corps 2008), and following subsequent guidance (Brostoff et al. 2001, Lichvar and Wakeley 2004, Lichvar et al. 2006, Lichvar & Dixon 2007, and Lichvar et al. 2008). According to the *Corps Manual*, identification of wetlands is based on a three-criterion approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. The Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. Data points (plots) were established in various locations along East Cronese Lake and the Mojave River to examine



vegetation, soils, and hydrology of each selected "site". Current and historical aerial photographs, topographic maps, general site observations, and wetland delineation results were used to define jurisdictional boundaries within the bank site.

Wetland Delineation

David Magney and Evan Lashly performed the delineation of wetland Lacustrine, Riverine, and Palustrine habitats at the Mojave River Watershed Bank Site, around and in East Cronese Lake. These biologists gathered data from forty-seven (47) sample plots, according to the *Corps Manual* (Environmental Laboratory 1987) and the *Arid West Supplement* (Corps 2008). The 47 sample plots were established along eleven (11) transects (A through K, Table 2. Wetland Delineation Transect Characteristics) and five (5) single sample locations (DMEC-1 through DMEC-4, Table 3. Wetland Delineation Single Sample Location Characteristics) across portions of the East Cronese Lake shoreline and portions of the Mojave River Delta near the bank site on 30-31 January, 11-12 March 2014, and 9 July 2014. Six (6) additional sample plots (AMEC-1 through AMEC-6, Table 3) were examined by Scot Chandler of AMEC Environment & Infrastructure Inc. (AMEC) on behalf of the California Department of Transportation (Caltrans) on the eastern portion of the Lyons Southwestern parcel on 20 February and 23 April 2014. One additional plot was sampled during the Corps delineation verification site visit by Mr. Magney and Ms. Veronica Li, Corps Project Manager, on 28 October 2014. Subsequent field observations of desert washes entering East Cronese Lake on its east side were made by Mr. Magney and Jared Logan on 6 January 2015.

Corps jurisdictional wetlands must possess one or more positive indicators for each of the three wetland criteria, including: (1) indicator(s) that the plot area is dominated by hydrophytic vegetation; (2) indicator(s) that wetland hydrology is present; and (3) indicator(s) that hydric soil conditions are present. Alterations to these specific requirements can be made in certain cases involving difficult sites and/or problematic or disturbed indicators. The transects and data points were surveyed to gather wetland data for these parameters and were recorded on field data forms for routine wetland determinations, which are included as Appendix A, Completed Wetland Determination Field Data Forms (Arid West Region). The suggested boundaries of waters of the U.S. and waters of the state are generally illustrated on Figure 7, Cronese Basin – Jurisdictional Waters.

Topography is considered in wetland boundary determination when diagnostics exist as hydrologic confinements. Total areas of wetland habitats were calculated using delineated lines, points, and polygons using Esri ArcView 3.3 and ArcGIS 10.2 software and onsite measurements. Delineation data points were collected using a Garmin eTrex Vista GPS and GPS Map 62stc handheld units.

The wetland delineation plots and transects sampled by DMEC are illustrated in Figure 8 through Figure 15. Note: The scale of the maps precludes depiction of the jurisdictional boundary exactly as compared with the wetland delineation data sheets, such as for plots I3 and I6, which are small inclusions of upland habitat within a large area that is jurisdictional. Wetland habitats were mapped by heads-up digitization (drawn on screen) using ArcMap 10.2 at a scale of approximately 1:2000 using color aerial photographs (2010 Digital Globe natural color aerial photography, 1-foot resolution) as a base layer.

Polygons were drawn to differentiate the distinct land cover and drainage signatures related to patterns observed on the aerial photograph and indicating changes in topography, vegetation cover, or community composition. The Corps jurisdictional boundary was modified in some select areas after the Corps verification visit.



Transects	Length (feet)	Starting Location	Transect Bearings	Survey Date
Α	132	West Bank	East-Northeast	31 January & 28 October 2014
В	161	West Bank	East-Southeast	12 March 2014
С	102	West Bank	East-Northeast	12 March 2014
D	545	West Bank	East-Southeast	12 March 2014
Е	109	Southwest Bank	North-Northeast	12 March 2014
F	80	South Bank	North-Northeast	31 January 2014
G	67	South Bank	North-Northwest	12 March 2014
Н	318	South Bank	North-Northeast	12 March 2014
Ι	850	South Bank	North	9 July 2014
J	1,228	Central Floodplain	North-Northwest	9 July 2014
K	497	Eastern Playa Surface	East	9 July 2014

Table 2. Wetland Delineation Transect Characteristics

Table 3. Wetland Delineation Single Sample Location Characteristics

Sample	General Location	Survey Date
DMEC-1	Playa, Northeast Parcel Corner	12 March 2014
DMEC-2	Playa, East Parcel Boundary	31 January 2014
DMEC-3	Playa, Southeast Parcel Corner	12 March 2014
DMEC-4	Playa, West Parcel Boundary	12 March 2014
DMEC-5	Swale, South of Parcel	11 March 2014
AMEC-1	Playa, East Parcel Boundary	20 February 2014
AMEC-2	Playa, East Parcel Boundary	20 February 2014
AMEC-3	Playa, East Parcel Boundary	20 February 2014
AMEC-4	Mojave River Channel	23 April 2014
AMEC-5	Mojave River Channel	23 April 2014
AMEC-6	Mojave River Channel	23 April 2014





Left: Plot A2, soil test excavations

Right: Transect B conditions



Left: Plot C2, looking west toward uplands

Right: Plot C3, looking west toward C2 and uplands



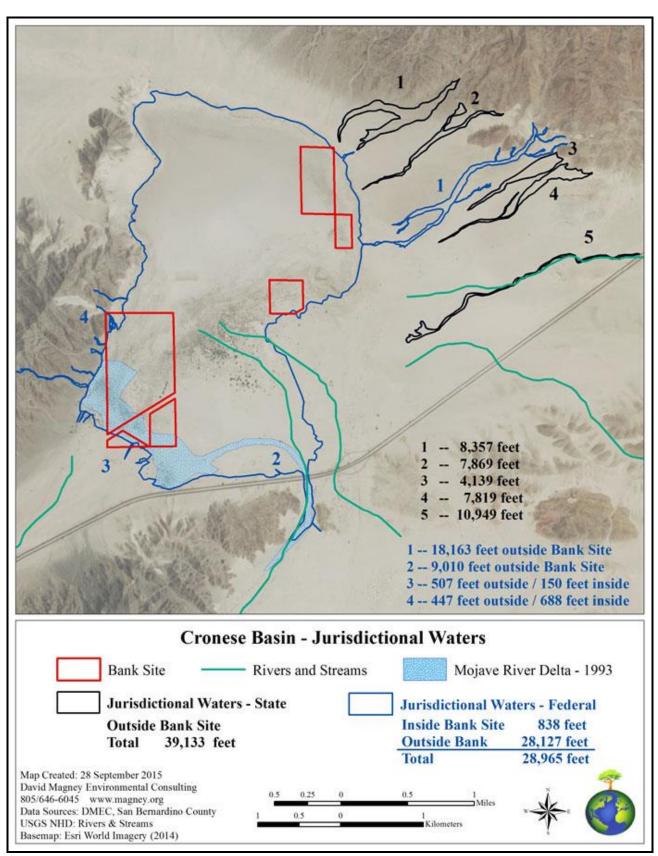


Left: Plot D1, looking east along transect

Right: Plot E3 looking north towards playa surface

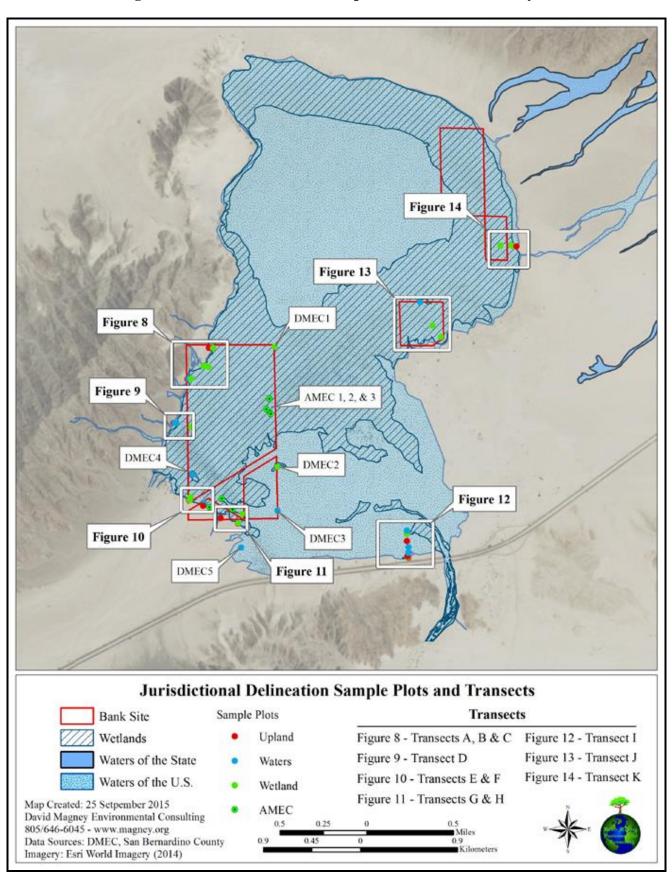


Left: View upstream of ephemeral desert wash that flows westward of the Soda Mountains into East Cronese Lake, with a clearly defined bed and bank to the edge of the playa lake. Right: View eastward and upstream of the bank of an ephemeral desert wash near the edge of East Cronese Lake exhibiting a thick layer of organic matter as evidence of past inundation and organic matter accumulation on the eastern shore of East Cronese Lake.





HO





HO



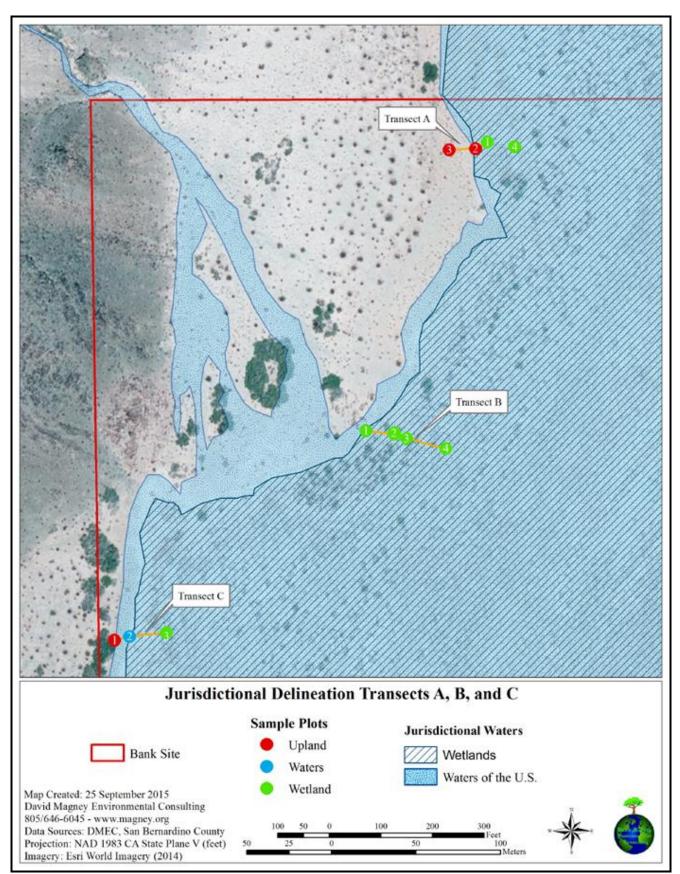
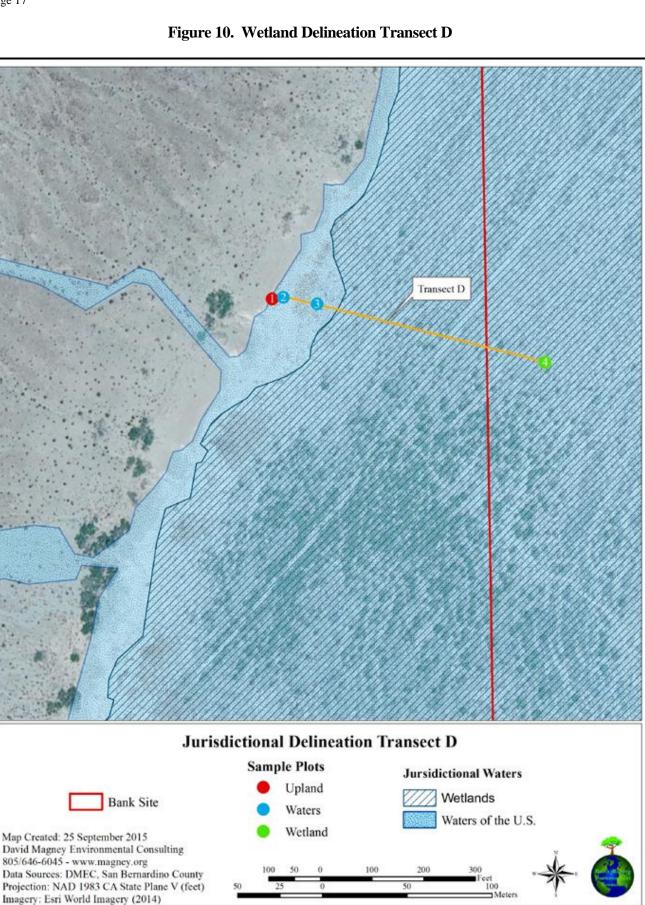
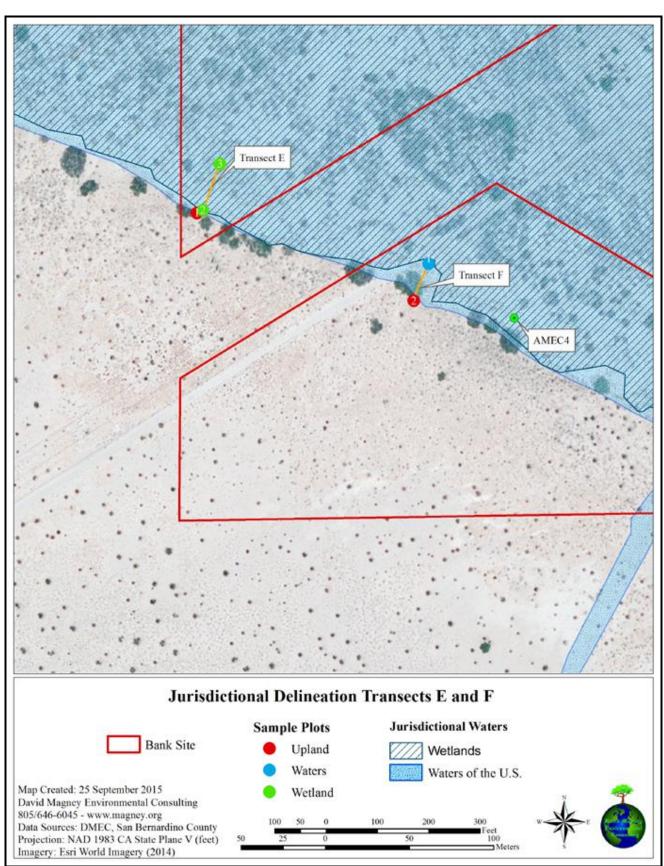
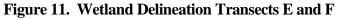


Figure 9. Wetland Delineation Transects A, B, and C



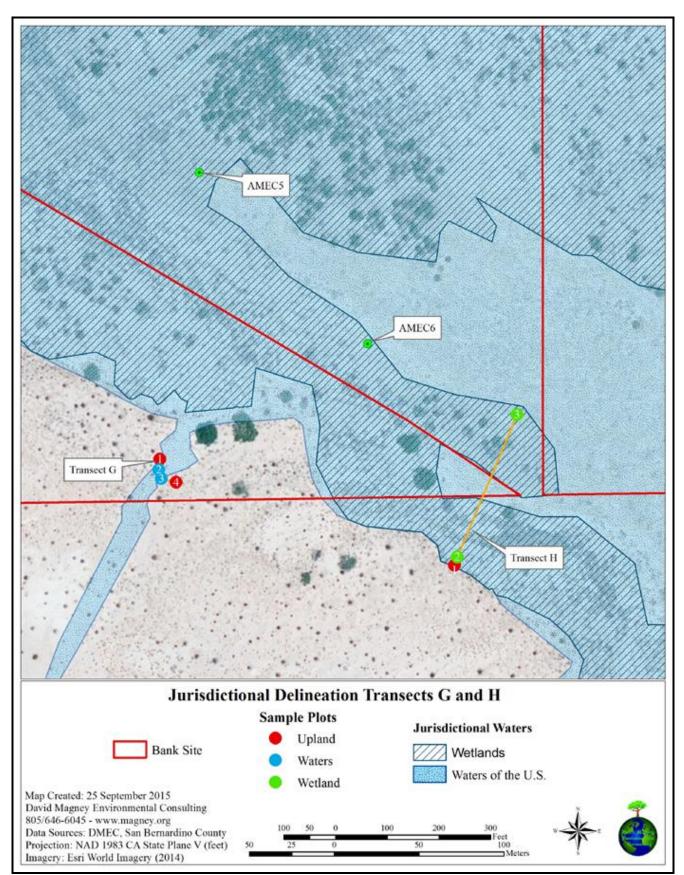
ÆC



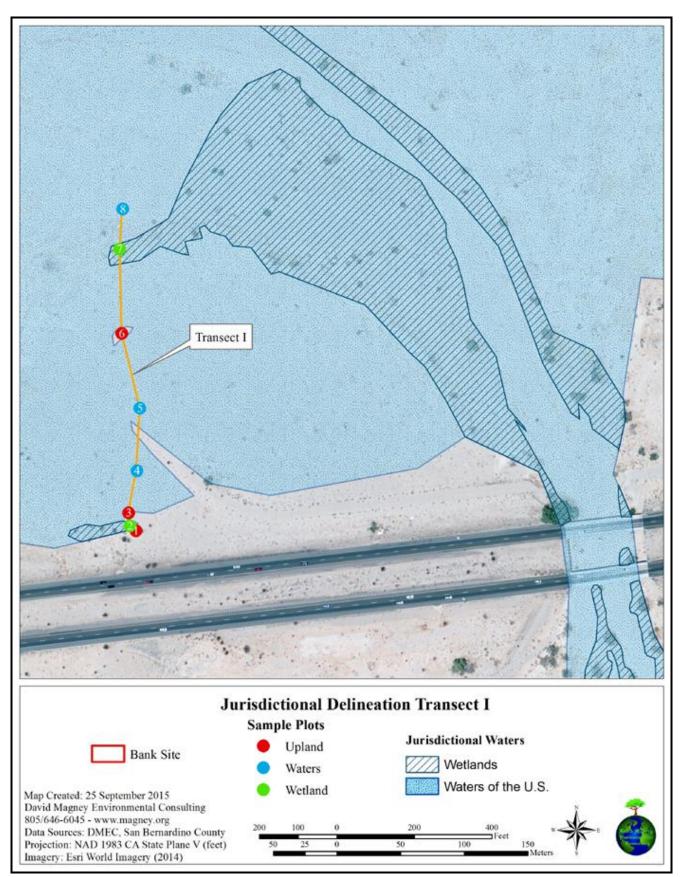


ÆC





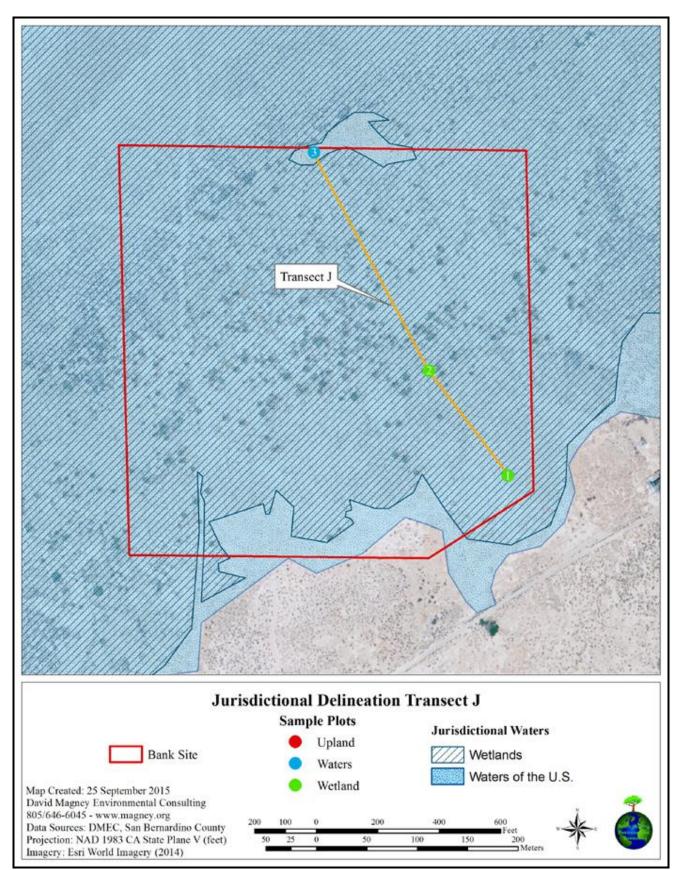






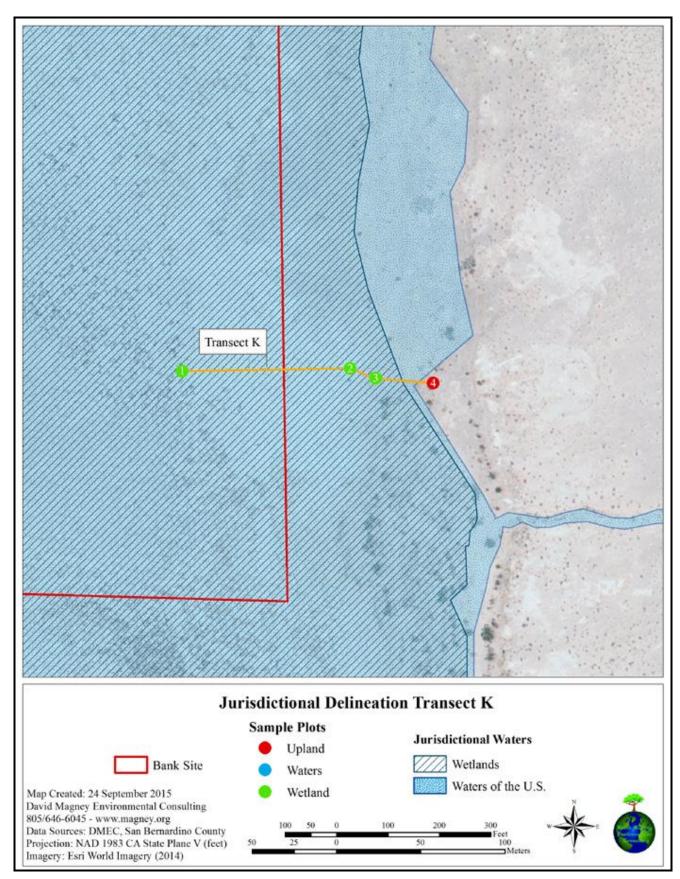
MEC







Lyons – Mojave River Watershed Mitigation Bank Wetlands Delineation, Revised DMEC PN: 12-0004 30 September 2015 Page 22





HO



Wetland Criteria

The Corps, under Section 404 of the Clean Water Act, defines a wetland as possessing the following three general diagnostic environmental characteristics during the growing season: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. The Corps supplemental guidance for the Arid West region (2008) allows certain exceptions to be made in difficult situations and where these characteristics are found to be problematic or disturbed. These wetland criteria are discussed in detail below.

Hydrophytic Vegetation

Under normal circumstances, one of the three criteria necessary for wetland consideration is that the vegetation must be dominated by hydrophytic plant species. Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (or plants typically adapted to growing in areas possessing hydrologic conditions and saturated soils). Emphasis is placed on the assemblage of plant species that exert a controlling influence on the character of the plant community, rather than on indicator species. Vegetation is considered to be hydrophytic when more than 50 percent of the dominant plant species of all vegetative strata (or those species making up at least 20 percent of relative cover) have a Wetland Indicator Status (WIS) of Facultative (FAC), Facultative Wetland (FACW), or Obligate Wetland (OBL) according to the *National List of Wetland Plants* (Lichvar et al. 2014). Lichvar et al. (2014) defines FAC species as equally likely to occur in wetlands or non-wetlands (34-66% probability), FACW species as usually found in wetlands (67-99% probability), and OBL species as occurring almost always in wetlands (>99% probability).

All plant species observed at each soil plot were recorded on the field data forms, and the percent absolute cover and the WIS of each species was indicated. The absolute cover was converted to relative cover to determine which species make up at least 20 percent of the plant community. More than 50 percent of the dominant plant species (those assigned a 20 percent relative cover or more) at each soil plot had to possess a WIS of FAC, FACW, or OBL in order to determine that a plot is dominated by hydrophytic vegetation in the field.

Note: While the National List of Wetland Plants provides generally a good guide for determining presence of hydrophytic vegetation, the creation of a national and statewide/regional lists is problematic since not all species have been fully assessed or quantitatively measured in the field as to their occurrence, or not, in wetland conditions. This is especially true for California and the Arid Southwest where there are over 7,000 vascular plant taxa, most of which have not been studied or sampled. Many species of plants often found in wetland situations lack a WIS and many of the plants with an assigned indicator status have been inaccurately assigned or the assignment lacks field measurements to support the assignment. There have been no publications based on actual field measurements determining the probability of any of the plants listed in Lichvar et al. (2014) or its predecessors (Reed 1988, 1996); therefore, professional judgment must be used in some instances when field observations conflict with a rigid adherence to the Lichvar et al. (2014) probability of occurrence in wetlands assignments.

In particular, DMEC addresses four (4) species encountered on the Bank Site with justification for alteration of an existing WIS, or assignment of an Wetland Indicator Status where lacking. These species are individually addressed below under Problematic Situations, and include: *Atriplex*



canescens, Chilopsis linearis var. arcuata, Prosopis glandulosa ssp. torreyana, Petalonyx thurberi, and Tamarix ramosissima. Several annual species were routinely encountered in several plots in areas dominated by hydrophytic shrubs that lack a WIS as well, including: Amsinckia tessellata, Brassica tournefortii, Cryptantha angustifolia, Pectocarya recurvata, Salsola tragus, Schismus barbatus, and Sisymbrium irio. Since each of these taxa were found regularly within plot considered jurisdictional wetlands, they should be given a WIS reflective of their probability of occurring within jurisdictional wetlands, not assumed to be U (upland species).

Wetland Hydrology

Wetland hydrology is another required wetland parameter necessary for wetland consideration. Hydrology conditions are met if (1) an area is inundated permanently or periodically, (2) has soil saturated to the surface at some time during the growing season of the prevalent vegetation, and/or (3) the area at least shows evidence of drainage patterns (well-defined bed and banks). Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Hydrology of the selected locations within the study area was evaluated through direct observation of primary and/or secondary indicators (including all Arid West Supplement indicators) of hydrology. Hydrology of the East Cronese Basin also used climate data from weather stations nearby (the nearest weather station is at Baker, California, 20 miles ENE).

Primary wetland hydrology indicators (only one required for wetland hydrology to be present) include:

- Indicator A1: Surface water
- Indicator A2: High water table
- Indicator A3: Saturation
- Indicator B1: Water marks (Riverine)
- Indicator B2: Sediment deposits (Riverine)
- Indicator B3: Drift deposits (Riverine)
- Indicator B6: Surface soil cracks
- Indicator B7: Inundation visible on aerial imagery
- Indicator B9: Water-stained leaves
- Indicator B11: Salt crust
- Indicator B12: Biotic crust
- Indicator B13: Aquatic invertebrates
- Indicator C1: Hydrogen sulfide odor
- Indicator C3: Oxidized rhizospheres along living roots
- Indicator C4: Presence of reduced iron
- Indicator C6: Recent iron reduction in plowed soils
- Indicator C7: Thin muck surface

Secondary wetland hydrology indicators (two required for wetland hydrology to be present) include:

- Indicator B1: Water marks (Riverine)
- Indicator B2: Sediment deposits (Riverine)
- Indicator B3: Drift deposits (Riverine)
- Indicator B10: Drainage Patterns
- Indicator C2: Dry-season water table
- Indicator C8: Crayfish borrows
- Indicator C9: Saturation visible on aerial imagery



- Indicator D3: Shallow aquitard
- Indicator D5: FAC-neutral test

At least one of the primary indicators of hydrology, or at least two of the secondary indicators of hydrology, had to exist at each soil plot in order to determine that a plot possessed indicators of hydrology in the field.

Additional indicators and guidance for delineation jurisdiction in desert playa lakes have been provided by the Corps (Brostoff et al. 2001), and are summarized in Table 4, Additional Indicators for Jurisdictional Delineation.

Primary Indicators:	Secondary Indicators:
Ponded water	Mud cracks (polygonal to open and lined)
Soil matrix colors of 10YR 7/1 to 8/2, moist	Unvegetated areas between mounds of phreatophytic vegetation
Potential to pond water	Salt crust
Drift lines	Soil texture with sand content >50%
Biotic soil crusts/algal surface films	
Low bulk density soils	

Table 4. Additional Indicators for Jurisdictional Delineation

Hydric Soil

The third required parameter necessary for wetland consideration is that indicators of hydric soil must be present. Soils must be present and must be classified as hydric, which includes indicators such as soils consisting of thick organic layers, gleying, or low chroma soil matrix, or, existing materials possess characteristics that are associated with reducing soil conditions.

In accordance with the *Corps Manual* and *Arid West Supplement*, soil pits were examined at 47 selected locations within and adjacent to the Bank Site. Soils were generally determined to be hydric if they possessed thick organic layers, gleying, or low chroma soil matrix (chroma of 2 or less with bright mottles, or matrix chroma of 1 or less). Soils data collected at each soil plot onsite included: profile depth, soil color (or matrix color [moist]), matrix percent, redox features (mottle color), redox percent, redox type, redox location, soil texture, and hydric indicators (or evidence of soil saturation for a long duration). Salinity and pH data were collected for selected soil pits.

The hydric soil indicators applicable for all regions, and indicators specifically designed for the Arid West, include the following:

- Indicator A1: Histosol
- Indicator A2: Histic Epipedon
- Indicator A3: Black Histic
- Indicator A4: Hydrogen Sulfide
- Indicator A5: Stratified Layers
- Indicator A11: Depleted Below Dark Surface
- Indicator A12: Thick Dark Surface

Lyons – Mojave River Watershed Mitigation Bank Wetlands Delineation, Revised DMEC PN: 12-0004 30 September 2015 Page 26



- Indicator S1: Sandy Mucky Mineral
- Indicator S4: Sandy Gleyed Matrix
- Indicator S5: Sandy Redox
- Indicator S6: Stripped Matrix
- Indicator F1: Loamy Mucky Mineral
- Indicator F2: Loamy Gleyed Matrix
- Indicator F3: Depleted Matrix
- Indicator F6: Redox Dark Surface
- Indicator F7: Depleted Dark Surface
- Indicator F8: Redox Depressions
- Indicator F9: Vernal Pools
- Indicator A9: 1 cm Muck
- Indicator A10: 2 cm Muck
- Indicator F18: Reduced Vertic
- Indicator TF2: Red Parent Material

Soils of each plot had to possess at least one positive indicator of hydric soils in order to determine that a plot had hydric soils.

PROBLEMATIC INDICATORS

Some wetlands in the Arid West can be challenging to identify because the wetland indicators (hydrophytic vegetation, hydric soils, and/or wetland hydrology) may be altered or missing due to natural processes or anthropogenic disturbance (Corps 2008). Many factors affect the biotic and abiotic processes in wetlands, which in turn affect the presence and/or detectability of described and accepted wetland indicators. These factors include but are not limited to: climatic variability, ephemeral water sources, parent soil materials, alkaline soils, saline soils, and human land-use practices. The presence of these and other factors within a naturally occurring wetland may result in a permanent or periodic lack of hydrophytic vegetation, hydric soils, or wetland hydrology indicators.

The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (Corps 2008) provides guidance for many situations involving problematic or disturbed wetland indicators in the Arid West. The Corps guidance allows for identification of wetlands lacking one or more required wetland indicators based on site-specific problems and conditions. While the Corps guidance is specific, detailed, and effective, it is not comprehensive and <u>allows for site specific interpretation</u> (Corps 2008):

"...wetland determinations on difficult or problematic sites must be based on the best information available to the field inspector, interpreted in light of his or her professional experience and knowledge of the ecology of wetlands in the region."

Confounding the problem of challenging delineation situations is the difficulty of characterizing wetland habitat type. The Cronese Basin is the terminus of the Mojave River. Like many river deltas, the Mojave River disperses widely into a dynamic network of swales and channels with islands of upland habitat. The intensity and duration of floodwaters can have profound impacts upon the local surface morphology of these channels. Major wash channels can be rerouted and the entire delta reshaped by single flood events. Typically, wash channels exhibit obvious physical



characteristics and are easily identified. However, due to the nature of the Mojave Desert and the Cronese Basin, it becomes challenging to determine the frequency of flooding in any particular channel. As the wash channels distribute into secondary channels and water disperses in the delta, an intermediate area of transition between Riverine and Lacustrine habitats is formed.

This transition zone lies across an ecotonal gradient in which both Riverine and Lacustrine processes are influencing the landscape. As the slope gradient flattens, the flowing water's ability to do work (transport sediments and/or debris) decreases, reducing or eliminating the opportunities to develop obvious physical features of hydrology after the surface water flows have ceased. Furthermore, significant conversion between habitat types is possible following flood events, driven by the intensity of flood flows and duration and extent of ponded water, as well as wind-blown sediments.

DMEC has attempted to adhere to Cowardin et al. (1979) in classifying major wash channels as Riverine System, the dispersed floodplain as Palustrine System, the vegetated playa surface also as Palustrine System, and the un-vegetated playa surface as Lacustrine System. However, the distinction in reality is much less clear and errors of commission and omission likely exist. Thus, DMEC has relied largely on evidence of a clear erosion bank, vegetative cover, and aerial image interpretation for delineating areas outside the Bank parcel boundaries.

The East Cronese Lake shoreline is well defined and consistent (i.e. it is obvious) primarily along the northern and western edges. However, the southeastern and southern edges of East Cronese Lake (where the Mojave River enters the lake) are much more variable and dependent upon the intensity of the flood event, the result of a low elevation gradient, and creating an ecotonal gradient. These characteristics are well illustrated by a comparison of the historic extent of ponded waters on East Cronese Lake, provided in Figure 16, Historic Extent of Ponded Water at East Cronese Lake.

Figure 16 uses the obvious inundation extents from Landsat satellite imagery from just three different years spanning over 30 years to illustrate both the variability and similarities of the extent and location of inundation when East Cronese Lake was at or near bank full. The Landsat satellites have a return frequency of 18 and 16 days, depending on the satellite. Similarly, the Corps (Lichvar et al. 2002) addressed this same basic problem regarding frequency of inundation for desert playas:

"The criteria for frequency and duration for OHW have not been defined under the CWA or any guidance from the Corps for field delineators. In an effort to provide background information concerning physical characteristics of xeric fluvial systems, Corps Districts in the southwestern United States have provided guidelines for making jurisdictional determinations for WoUS, including playas, but have not provided any guidance for the requirements of frequency or duration of ponding or flowing waters (U.S. Army Engineer Division, South Pacific 2001). In addition, few technical data are available documenting the areal extent of inundation of playas or other aspects of playa hydrology (Rosen 1994).

"In an effort to provide support evidence about the frequency and duration of surface hydrology of playas in the arid Southwest, case studies were performed for several playas in the western Mojave Desert, California. The purpose of this study was to estimate the frequency of playa inundation lasting 16 days (typical Landsat frequency) or more by coupling available Landsat images from the past 21 years with precipitation data from the last 50 years."

Further confounding the problem is a lack of technical data. Desert aquatic systems are poorly studied and understood (Levick et al. 2008, Lichvar et al. 2006). Both playa and wash systems, particularly in the Mojave Desert, have been poorly examined relative to their counterparts



containing perennial water. Furthermore, the conditions in the Cronese Basin appear to be somewhat unique. While some literature is available addressing desert playa and wash systems independently, DMEC has not encountered a single study addressing the interaction between the two. The Mojave River terminus in East Cronese Lake is potentially one of the largest isolated xeric river deltas in California. This presents a unique situation that has never before been thoroughly examined. Lichvar et al. (2006) states:

"...the delineation of playas is based on a mixture of meager technical data, best professional judgment, and site-specific inferential study... some site-specific work will probably always be required because of the inherent variability among playas."

Discussion of problematic situations in the Arid West and potential solutions can be found in the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (Corps 2008), and supported by Brostoff et al. (2001), Lichvar and Wakeley (2004), Lichvar et al. (2006), Lichvar & Dixon (2007), and Lichvar et al. (2008).

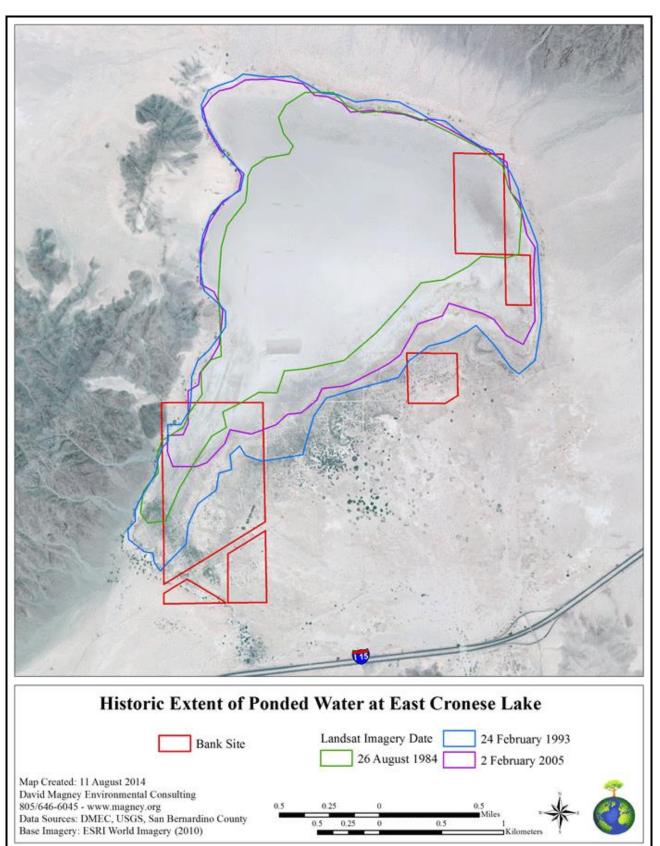
Problematic Situations of East Cronese Lake

Several specific problematic situations encountered by DMEC in the Cronese Basin are discussed and illustrated below.

Problematic Hydrophytic Vegetation

The Arid West and the Mojave Desert in particular contain many harsh and specialized habitats (e.g. saline and alkaline soils and groundwater deeper than required to be considered a wetland). Plants with physiological and morphological adaptations to survive these specialized habitats dominate many of these habitats. Lichvar & Dixon (2007) present some of the challenges in assigning accurate WISs to plants in these specialized habitats, and argue that WISs should be treated in a habitat-specific approach. They present a series of species lists for special consideration as specialized habitat groups, the groups described include: Playa Edges, Dry Wash Species, Dry Wash Phreatophytes, Hygro-halophytes, Xero-halophytes, and Phreatophytes with salt tolerance.

DMEC encountered several species listed by Lichvar & Dixon (2007) in the Cronese Basin. These species are addressed individually below, with evidence for altering or assigning WISs as treated by Lichvar et al. (2014) where appropriate in Table 5, Problematic Plant Species.





HU



Table 5. Problematic Plant Species

Species	Assigned WIS ⁵	Suggested WIS	Evidence/Rationale
Amsinckia tessellata	None	FACU	DMEC personal observations include abundant and widespread playa edge communities
Atriplex canescens	None	FAC	 Included in Lichvar & Dixon (2007) Lists as: Playa Edges, Dry Washes, Dry Wash Phreatophytes, Xero-halophytic Species, & Phreatophytes with Salt Tolerance Habitat preference described as "playas" Sawyer et al. (2009)
			• DMEC personal observations include abundant and widespread playa edge communities, in both wetland and upland locations
Chilopsis linearis ssp. arcuata	FACU	FACW	 Listed as FACW by Reed (1988, 1997) Habitat preferences described as "wash", "stream", or "watercourse" by Jepson Flora Project 2014, Sawyer et al. (2009), Uchytil (1990), and Abrams (1960) DMEC personal observations consist entirely of wash associated habitats
Cryptantha angustifolia	None	FACU	 DMEC personal observations include abundant and widespread playa edge communities and wash associated habitats
Eremalche exilis	None	FACU	 DMEC personal observations include abundant and widespread playa edge communities and wash associated habitats
Pectocarya recurvata	None	FACU	 DMEC personal observations include abundant and widespread playa edge communities and wash associated habitats
Petalonyx thurberi	None	FAC	 Included in Lichvar & Dixon (2007) Lists: Dry Wash Species and Dry Wash Phreatophytes
Prosopis glandulosa ssp. torreyana	UPL	FAC	 Included in Lichvar & Dixon (2007) Lists: Dry Wash Species and Dry Wash Phreatophytes Habitat preference described as "Sonoran-Coloradan Semi- desert Wash Scrub" and several populations cited as "riparian" by Sawyer et al. (2009) DMEC personal observations include abundant and widespread playa edge communities and wash associated habitats
Salsola tragus	FACU	FAC	 Included in Lichvar & Dixon (2007) Lists: Dry Wash Species DMEC personal observations include numerous playa fringe, wash, and playa surface communities
Schismus barbatus	None	FAC	 Included in Lichvar & Dixon (2007) Lists: Playa Edge and Dry Wash Species DMEC personal observations indicate it is just as likely to be seen within wetlands as outside of wetlands
Tamarix ramosissima	None	FAC	 Included in Lichvar & Dixon (2007) Lists: Dry Wash Species and Dry Wash Phreatophytes Listed as FAC by Reed (1988, 1997) All other species of the genus <i>Tamarix</i> are included in the Lichvar et al. (2014) list as FAC or FACW and share similar life history traits DMEC personal observations include abundant and widespread playa edge communities and wash associated habitats

DMEC believes the species listed in Table 5 above should be treated as hydrophytes as suggested for the purposes of determining the presence of wetland habitats in the Cronese Basin and likely elsewhere in the Mojave Desert.

⁵ According to Lichvar et al. (2014)



Problematic Hydric Soils

Hydric soils in the Arid West Region are often difficult to detect due to a variety of factors, including, but not limited to the following: parent material color results in non-hydric appearance, lack of conditions required to develop redoxomorphic conditions despite prolonged soil saturation, and insufficient time for development (Corps 2008). Furthermore, evidence of hydric soils may have formed in the distant past when conditions may have been wetter and persisted even though wetland hydrology may no longer be present.

Three of the described problematic hydric soil examples are present on the Bank Site: (1) Moderately to Very Strongly Alkaline Soils (very high pH of 7.9 or higher); (2) Vegetated Sand and Gravel Bars within Floodplains; and (3) Seasonally Ponded Soils.

Redoximorphic features are not readily expressed in saline and alkaline arid soils (Boettinger 1997). The low organic matter of desert soils also makes it difficult for iron depletions and concentrations to form (Brostoff et al. 2001). On 24 June 2015 DMEC sampled soil pH and conductivity (a measure of salinity) at selected plots from the wetland delineation, which are listed in Table 6 below. Nearly all of the sampled plots had a soil pH of over 7.9, suggesting that certain hydric soil indicators are masked in these soils. Conductivity values varied, but generally conductivity values were higher on the playa surface, and this could also confound hydric soil indicators. Vegetated sand and gravel bars are abundant throughout the Mojave River Delta approaching the playa surface.

Plot	pН	Conductivity (µS)
A1	8.35	495
A2	8.45	200
A3	8.49	72
A4	7.96	890
B1	7.7	NR^{6}
B2	7.65	259
B4	8.71	590
E2	8.04	NR
E3	8.58	NR
H1	8.7	NR
H2	8.91	NR
H3	8.21	NR
J1	8.54	160
J2	8.37	234
J3	8.15	195
K1	8.96	360
K2	8.99	495
DMEC1	8.61	495
DMEC2	7.99	472

Table 6. pH and Conductivity of Selected Wetland Delineation Plots

⁶ Not Recorded



Seasonally ponded soils are considered problematic due to soil features preventing the formation of hydric soils such as limited saturation depth or saline conditions. The extent, duration, and frequency of ponding at East Cronese Lake are somewhat unclear. Anthony Chavez with the Bureau of Land Management has indicated some ponding occurs roughly every two years (Chavez pers. comm. 2014). This low frequency of inundation in combination with high soil pH inhibits the creation of hydric soils (Brostoff et al. 2001). Lichvar et al. (2001) found that desert playas in the western Mojave Desert were inundated for at least 16 days every other year, on average. This finding generally supports Chavez's personal observations of ponding at East Cronese Lake.

DMEC has relied on the hydric soil indicator Stratified Layers (A5), interpreted in light of local conditions in the Cronese Basin. Many sample plots clearly exhibited fluvial deposits of stratified substrate layers, although they do not meet the requirement of chroma 2 or less, primarily because an accurate chroma reading cannot be taken in sandy soils, and likely due to high soil pH. These dark colors are the result of anoxic conditions that are not likely to form in the Cronese Basin. Therefore, when hydrology and hydrophytic vegetation are also present, the presence of hydric soils can be assumed, but masked or otherwise prevented from developing visible hydric soil features.

To quote the NRCS, "the lack of an indicator is not necessarily test negative"⁷, and "If it does not meet an indicator, it doesn't necessarily mean it is an upland soil. This is important!"⁸, which highlights the fact that soils do not always fit into the general categories, or exhibit the standard features that soil and wetland scientists are required to rely upon when performing wetland delineations. Ample evidence has been provided that hydric soil indicators may not be evident in desert playa soils.

Problematic Hydrology

Observing direct evidence of ponding or inundation in arid environmental such as the Mojave Desert is problematic due to the irregular occurrence of precipitation and/or flooding events, which are often highly localized, particularly for events during the summer months. Questions arise in the Mojave Desert regarding ponding of desert playas such as East Cronese Lake since some indicators may not be indicative of current (recent) hydrology, such as water marks around the playa lake (some of which could be relics of the late Pleistocene).

Lichvar et al. (2002) developed a method to determine the general frequency of ponding of desert playa lakes using precipitation data and Landsat satellite imagery for three playa lakes at Edwards Air Force Base in the western Mojave Desert. They found that "...ponding occurs at least every other year based on winter precipitation of 3.27 in. and that in years exceeding this threshold, ponding will be present for at least 14 days during the growing season. The analysis of duration also produced a linear relationship between amount of rain and total weeks that the playa remained ponded with a range of 1 to 32 weeks duration for the six years analyzed."

DMEC took a similar approach to demonstrate that East Cronese Lake does still pond water periodically using historic Landsat imagery, as illustrated on Figures 4, 5, and 6. These are further supported by National Weather Service National Climate Data Center (NWS NCDC) precipitation data from the nearest weather station located at Baker, California, in Table 7 below, Precipitation Data for Baker, California.

⁷ NRCS Field Indicators of Hydric Soils training PowerPoint module (nrcs143_010773), notes for Slide 65.

⁸ NRCS Field Indicators of Hydric Soils training PowerPoint module (nrcs143_010773), notes for Slide 62.



The NWS NCDC precipitation data show that, for the years when data were available for the entire year (fourteen years during the period from 1981 - 2010), annual precipitation exceeded 3.67 inches eight (8) different years. Assuming the precipitation at East Cronese Lake was similar to that for Baker, a reasonable assumption, and that Lichvar et al.'s (2002) model is valid, then we can reasonably assume that East Cronese Lake experienced ponding on average every other year. This is supported by Chavez's personal observations. Therefore, for East Cronese Lake in general, hydrology is present.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1981	0.36	0.04	0.47	0.00	0.78	0.00	0.00	0.24	0.31	0.00	0.00	0.00	2.20
1982	0.00	М	1.01	М	М	0.00	0.00	0.69	0.00	0.00	0.87	М	М
1983	0.44	0.87	2.59	0.70	0.00	М	М	1.95	0.17	0.51	0.07	0.37	М
1984	0.00	0.00	0.00	Т	0.00	Т	2.08	0.30	0.23	0.00	0.54	1.54	4.69
1985	0.20	0.00	0.08	0.05	Т	Т	0.15	0.00	0.34	0.04	0.59	Т	1.45
1986	0.07	0.43	0.94	М	0.04	Т	1.16	0.83	0.00	М	1.03	1.02	М
1987	0.44	0.32	0.22	Т	0.02	0.48	0.20	0.01	0.12	М	1.63	0.40	М
1988	0.50	0.15	0.00	2.02	0.00	0.00	0.00	2.53	0.00	0.00	0.18	0.15	5.53
1989	1.00	0.10	0.15	0.00	0.03	0.00	0.00	0.40	0.00	0.00	0.00	0.00	М
1990	0.70	0.11	0.00	0.14	0.13	М	М	М	М	М	М	М	М
1991	М	М	М	М	М	М	М	М	М	М	М	М	М
1992	М	М	М	М	М	М	М	М	М	М	М	М	М
1993	М	М	М	М	М	М	М	М	М	М	М	М	М
1994	М	М	М	М	М	М	М	М	М	М	М	М	М
1995	М	М	М	М	М	М	М	М	М	М	М	М	М
1996	М	М	М	М	М	М	М	М	0.00	0.29	0.59	0.13	М
1997	0.52	0.10	0.00	Т	0.01	0.01	1.08	0.52	1.89	0.01	0.05	0.34	4.53
1998	0.17	3.43	0.60	0.08	0.55	0.00	Т	0.94	0.42	0.18	0.06	0.00	6.43
1999	0.18	0.15	0.02	0.63	Т	0.25	0.35	0.05	0.52	0.00	0.00	0.00	2.15
2000	Т	0.88	0.10	0.07	0.00	0.00	0.00	0.29	0.00	0.31	0.01	0.00	1.66
2001	0.92	2.02	0.57	0.01	0.00	0.00	0.32	0.00	0.00	0.00	0.09	М	М
2002	0.01	0.00	0.00	0.00	0.00	0.00	0.30	М	0.08	0.17	0.32	0.11	М
2003	0.04	1.45	0.96	0.80	0.03	0.00	0.03	1.98	0.01	0.06	0.97	0.25	6.58
2004	0.05	1.63	0.65	0.24	0.00	0.00	Т	0.20	0.06	0.79	0.60	0.93	5.15
2005	М	3.28	0.75	0.05	0.00	0.00	0.23	1.10	1.07	0.00	0.01	0.00	М
2006	М	0.01	0.13	М	М	0.04	0.26	0.00	0.28	0.79	М	М	М
2007	0.00	М	М	0.00	0.00	0.00	T	Т	2.81	0.00	0.00	0.73	М
2008	0.54	0.16	0.00	0.00	0.35	0.00	0.05	Т	Т	Т	0.72	1.04	2.86
2009	0.02	0.49	Т	0.02	Т	0.00	0.05	Т	0.00	0.00	0.00	0.29	0.87
2010	1.74	2.24	0.15	0.01	0.00	0.00	0.00	0.35	0.00	0.99	0.05	3.40	8.93
Mean	0.36	0.81	0.41	0.23	0.09	0.04	0.28	0.56	0.35	0.19	0.36	0.51	4.08
Max	1.74 2010	3.43 1998	2.59 1983	2.02 1988	0.78 1981	0.48 1987	2.08 1984	2.53 1988	2.81 2007	0.99 2010	1.63 1987	3.40 2010	8.93 2010
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87

Source: <u>http://nowdata.rcc-acis.org/</u>



SECTION III. REGULATORY REQUIREMENTS

Waters of the U.S. (including stream channels, playas, and wetlands) fall under the jurisdiction of the Corps and State Water Resources Control Board (SWRCB), pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Wetlands such as freshwater stream channels are considered sensitive and declining by several regulatory agencies including the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS).

Waters of the State are regulated by the CDFW pursuant to Section 1600 *et seq.* of the California Fish and Game Code (Streambed Alterations).

Several agencies have jurisdiction over, or policies regarding, waters and/or wetlands, including the Corps, SWRCB, CDFW, and County of San Bernardino. Each agency or jurisdiction has slightly different definitions for wetlands or descriptions of their policies regarding them. For the LYONS project, the Corps and SWRCB use the same definition for waters of the U.S. and wetlands as they apply to the Clean Water Act. The CDFW uses a broader definition under Section 1600 *et seq.* of California Fish and Game Code.

Waters of the U.S., including wetlands, are under jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act, and discharging dredge or fill material into waters of the U.S. requires a permit from the Corps. Certain activities are covered under a number of generic permits, known as General (Nationwide) Permits. Activities not covered by existing Nationwide Permits require an application for an Individual Permit from the Corps. Areas exhibiting clearly defined bed and banks of water courses with evidence of periodic or regular erosion and/or deposition by water are considered to be waters of the U.S., and are under the jurisdiction of the Corps.

DEFINITION OF WATERS OF THE UNITED STATES

The term "waters of the United States" means:

- "(1) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to 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 where the use, degradation, or destruction of which could affect interstate or foreign commerce, including any such waters:
 - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;
 - (iii) Which are used, or could be used, for industrial purposes by industries in interstate commerce; or
 - (iv) Including all impoundments of waters, otherwise defined as waters of the U.S., under the definition;
- (5) Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;



- (6) The territorial seas; and
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.
- (8) Waters of the U.S. do not include prior converted cropland. 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 EPA."

Basically, areas exhibiting clearly defined bed and banks of water courses with evidence of periodic or regular erosion and/or deposition by water are considered to be waters of the U.S., and are under the jurisdiction of the Corps, except as excluded by the Supreme Court of the U.S..

DEFINITIONS OF WETLANDS

The official definition of "wetland" differs among regulatory agencies, but all variations possess the following three general diagnostic environmental characteristics:

- 1. **Hydrophytic Vegetation**. The prevalent vegetation consists of macrophytes that are typically adapted to areas having hydrologic and soil conditions described in wetland definitions above.
- 2. **Hydric Soil.** Soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions.
- 3. **Hydrology.** The area is inundated either permanently or periodically at mean water depths less than or equal to two meters (6.6 feet), or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation.

The Corps (Environmental Laboratory 1987) defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The Corps requires that positive indicators for all three criteria must be found (hydrophytic vegetation, hydric soil, and hydrology as listed above), with exceptions only where disturbance or problematic situations exist, to be considered a jurisdictional wetland for the purpose of Federal regulations.

For the purpose of this report, wetlands were determined based on the Corps wetlands definition (above).



SECTION IV. GENERAL SITE CONDITIONS

This section provides the general site conditions, botanical resources, habitat types, and mapped soil units of the Bank Site.

CRONESE BASIN

The Bank Site occurs in the Cronese Basin which is entirely within the Cronise Valley watershed (HUC10) which is situated in the Mojave River sub-basin (HUC8), and wholly encompasses the historical and active floodplain, bounded on the north, west, and south by steep mountain slopes, Cronese, Cave, and Soda Mountains, respectively. The Mojave River enters the Cronese Basin underneath the "Mojave River Overflow" I-15 bridges. Upon entering the Cronese Basin, the Mojave River disperses into a large network of channels, braided channels, swales, and floodplain interspersed with islands and dunes. The apparent main channel of this network bends to the west and then north again and enters the Bank Site's Southwestern parcel, draining primarily as sheet flow into East Cronese Lake. The majority of the Cronese Basin is influenced by this interaction between the terminus of the Mojave River Riverine system and the East Cronese Lacustrine system. Several main river distributary channels have obvious banks and signatures visible on aerial imagery, while huge areas of floodplain have much more poorly defined boundaries.

Following Cowardin et al. (1979) the well-defined channels (not dominated by persistent vegetation, <30% absolute cover) are classified as Riverine System, while the large areas of floodplain (although often exhibiting much less than 30% vegetative cover) are excluded from the Riverine System and classified as Palustrine System. Therefore, the majority of areas exhibiting signs of hydrology fall into the Palustrine system. There are significant areas of overlap and intergradation between the three systems (Palustrine, Riverine, and Lacustrine), thus DMEC has relied largely on evidence of a clear bank, vegetative cover, and aerial imagery interpretation for delineating areas outside the bank parcel boundaries.

Transect I captures some of the potential variability within the floodplain system. Plots I-3 and I-6 are upland islands within the greater floodplain area due to microtopological relief and influences. Transect I is illustrated in Figure 13.

Atriplex torreyi Provisional Scrubland Alliance (Saltbush Scrub/Torrey Saltbush Scrub), Tamarix ramosissima Stand, Prosopis glandulosa Scrubland Alliance (Mesquite Bosque), Larrea tridentata Scrubland Alliance (Creosote Bush Scrub) plant communities occur within and along the edges of the playa lake and form intact, continuous, and contiguous habitat in all directions. Outside the boundaries of the Bank Site, the land cover includes Lacustrine habitats to the east and north, dune desert upland habitats (undeveloped) to the south, and steep rocky mountainous habitat to the west.

Numerous species of wildlife are known to occur within the vicinity of East Cronese Lake and its tributaries, and frequent the habitats present onsite on a resident and seasonal basis. Local wildlife species regularly utilize the food, water, and cover resources provided by the Mojave River Delta, playa, and adjacent upland habitats.

DMEC found that the Bank Site is in relatively good condition; with only the existing utility corridor and remnants of past development associated with several access road trails, except for the dominance of the site by *Tamarix ramosissima* (Saltcedar). *Tamarix ramosissima* is an aggressive



invasive exotic shrub/small tree that is dominant on much of the Southwestern parcel and exacerbated by historic plowing on the Southeastern parcel. DMEC bases this conclusion on the percent of native plant species (84%) compared to nonnative species (16%), the diversity of natural plant communities, and the significantly low level of disturbance by humans (past and present).

Southwestern Parcel

A Mojave River major distributary channel (delta) enters the Southwestern parcel on the southeast corner and fills East Cronese Lake on this parcel. The Mojave River Delta and its associated network of distributary channels and swales interspersed with palustrine and upland islands dominate the landscape to the east of the Southwestern parcel. This distributary network influences the hydrology of much of the east side of the Southwestern parcel. Much of the north-northwest portion of the parcel is clearly inundated in historical aerial imagery; however, the presence of persistent vegetation (primarily *Atriplex torreyi* Provisional Shrubland Alliance and *Tamarix ramosissima* Stand) on the playa surface qualifies the majority of the parcel for classification as Palustrine system. Some areas of the playa lake support a wetland plant community consisting of herbaceous species, primarily annuals, represented by the *Stutzia covillei-Lepidium nitidum-Cressa truxillensis* Provisional Association (under the *Cressa truxillensis-Distichlis spicata* Herbaceous Alliance). An ephemeral wash also enters the northwestern corner of Southwestern parcel from the Cronese Mountains. BLM Road/Trail 4N03 generally follows the west side of the playa lake.

Prosopis glandulosa Shrubland Alliance, *Larrea tridentata* Shrubland Alliance plant communities occur along the edges of the playa lake and form intact, continuous and contiguous habitat in all directions. Outside the boundaries of the parcel, the land-use includes lacustrine habitats to the east and north, dune desert upland habitats (undeveloped) to the south, and steep rocky mountainous habitat to the east. The surrounding land-use is undeveloped and forms intact continuous and contiguous habitat in all directions with no barriers to movement or dispersal.



Left: View SW from the NE corner of the SW parcel (plot DMEC1) Right: Tamarix ramosissima Stand (Tamarisk Thicket) palustrine habitat of the SW property.





Left: Sparely vegetated Palustrine floodplain area on SE portion of SW parcel with Prosopis glandulosa in the distance. Right: Edge of Mojave River wash bank with Prosopis glandulosa on S end of SW parcel

Southeastern Parcel

The Southeastern parcel lies on the fringe of the distributary network and the playa surface, just south of the East Cronese Lake and is dominated by *Tamarix ramosissima* with sparse herbs. The entire parcel was previously graded and plowed for agriculture; plow lines are clearly visible on the ground and in aerial imagery. The dominance of *T. ramosissima* and the lack of any native plant communities onsite is likely a result of this previous disturbance. DMEC believes the site was a mixture of *Atriplex torreyi* Provisional Shrubland Alliance and *Larrea tridentata* Shrubland Alliance prior to disturbance. Habitats outside the parcel consist of Lacustrine to the north, Palustrine floodplain to the immediate east, south, and west, and upland dunes further east. The surrounding land-use is undeveloped and forms intact continuous and contiguous habitat in all directions with no barriers to movement or dispersal.



Left: View S on SE parcel from Plot J-2. Right: Tamarix ramosissima Stand (Tamarisk Thicket) palustrine habitat of the SE property





Left: Flotsam deposited by floodwaters on the central portion of the SE parcel Right: Oxidized rhizospheres from plot J3 on SE parcel

Eastern Parcel

The Eastern parcel lies entirely on the playa surface of East Cronese Lake, just to the west of the eastern shoreline. The Eastern parcel is dominated by natural communities, primarily *Suaeda nigra* Shrubland Alliance (Bush Seepweed Scrub) with open areas containing herbaceous communities such as *Cressa truxillensis-Distichlis spicata* Herbaceous Alliance represented by the unique *Stutzia covillei-Lepidium nitidum-Cressa truxillensis* Provisional Herbaceous Association. The presence of this persistent (i.e. shrubland) vegetation qualifies the majority of the parcel as Palustrine habitat, with a patchy intergradation with Lacustrine habitats in the northwestern corner. *Suaeda nigra* (WIS = OBL) is tolerant of inundation; however, it is possible that a major flood event could inundate the entire parcel longer than the scrubland can withstand and thereby convert the parcel entirely to Lacustrine habitats.



Left: View SW from Plot K1 on the Eastern parcel, with Suaeda nigra Alliance (Bush Seepweed Scrub) Right: Watermarks on rocks and view NE (upland) from just outside the E boundary of the Eastern parcel

The Northern parcels (natural, intact Lacustrine and Palustrine habitat) lie directly to the northwest of the Eastern parcel. Outside the boundaries of the parcel, Lacustrine playa surface habitat exists to the north, west, and south, and Palustrine playa shoreline habitat exists to the east with upland



habitats dominated by *Larrea tridentata* Shrubland Alliance beyond. The surrounding land-use is undeveloped and the land cover forms intact continuous and contiguous habitat in all directions with no barriers to movement or dispersal.

Northern Parcels

The Northern parcels lie entirely on the playa surface of East Cronese Lake, near the northeastern shoreline. The Northern parcels are dominated almost entirely by natural undisturbed Palustrine habitats densely vegetated with *Atriplex torreyi* Provisional Shrubland Alliance. The northwestern corner of the Northern parcels contains Lacustrine habitat not dominated by vegetation. Outside the boundaries of the parcels *Prosopis glandulosa* Shrubland Alliance exists along the playa fringes to the east and north, with upland communities dominated by *Larrea tridentata* Shrubland Alliance beyond, and Lacustrine habitats to the south and west. The surrounding land-use is undeveloped and forms intact continuous and contiguous habitat in all directions with no barriers to movement or dispersal.



Property looking south, dominated by Atriplex torreyi and Suaeda nigra.

FLORA

The flora of the Bank Site and adjacent areas is presented in Table 8, Plant Species Observed by DMEC (East Cronese Lake) which lists the plant species observed during the surveys conducted onsite, as well as Consortium of California Herbaria (CCH) documented specimens collected within a 2-mile radius (CCH 2014) for a total of 142 vascular plant taxa.

DMEC observed 73 vascular plant taxa. Of the 73 vascular plant taxa, 61 (84%) are native and the remaining 12 (19%) are introduced naturalized species. The vascular plant flora of the property appears to be in better condition than what would normally be expected at similar-sized areas



elsewhere in the region and in California, except for the areas of the Bank Site dominated by invasive exotic plants. (DMEC 2015a.)

The nature of the property has resulted in a significantly higher ratio of native plant species than is typically found for the flora of California (~70% native) (Baldwin et al. 2009) overall.

Table 8. Plant Species Observed by DMEC (East Cronese Lake)

Scientific Name ⁹	Common Name	Family	WIS ¹⁰	Evidence ¹¹
Abronia villosa var. villosa	Hairy Sand-verbena	Nyctaginaceae	•	collected
Achyronychia cooperi	Frost Mat	Caryophyllaceae		ССН
Aliciella micromeria [Gilia m.]	Dainty Gilia	Polemoniaceae		ССН
Aliciella monoensis	Mono Lake Aliciella	Polemoniaceae		CCH
Amaranthus albus *	Tumbleweed	Amaranthaceae	FACU	CCH
Ambrosia dumosa	White Bur-sage	Asteraceae		collected
Ambrosia salsola var. salsola	Cheesebush	Asteraceae		collected
Amsinckia tessellata var. tessellata	Desert Fiddleneck	Boraginaceae	(FACU)	collected
Androstephium breviflorum	Small-flowered Androstephium	Themidaceae		CCH
Argemone corymbosa	Leafy Prickly Poppy	Papaveraceae		photographed
Arida arizonica [Machaeranthera arida]	Silver Lake Daisy	Asteraceae	FACU	photographed
Astragalus didymocarpus var.	Prostrate Two-seeded			
dispermus	Milkvetch	Fabaceae		CCH
Astragalus lentiginosus var.				
borreganus	Borrego Milkvetch	Fabaceae	UPL	CCH
Astragalus lentiginosus var.				
variabilis	Varied Milkvetch	Fabaceae	UPL	ССН
Atriplex canescens var. canescens	Fourwing Saltbush	Chenopodiaceae	(FAC)	Observed
Atriplex canescens var. laciniata	Caleb Saltbush	Chenopodiaceae	(FAC)	collected
Atriplex polycarpa	Allscale Saltbush	Chenopodiaceae	FACU	CCH
Atriplex torreyi var. torreyi	Torrey Saltbush	Chenopodiaceae	FAC	collected
Baileya pauciradiata	Lax Flower	Asteraceae		CCH
Bebbia juncea var. aspera	Rough Sweatbush	Asteraceae		collected
Brassica tournefortii *	Sahara Mustard	Brassicaceae	(FACU)	collected
Brickellia incana	Woolly Brickellbush	Asteraceae		CCH
Bromus madritensis ssp. rubens *	Red Brome	Poaceae	UPL	collected
Caulanthus lasiophyllus [Guillenia l.]	California Mustard	Brassicaceae		collected
Chaenactis carphoclinia var.				
carphoclinia	Pebble Pincushion	Asteraceae	•	CCH
Chaenactis stevioides	Esteve Pincushion	Asteraceae		collected
Chaenactis xantiana	Fleshy Pincushion	Asteraceae		CCH
Chamaesyce micromera	Desert Spurge	Euphorbiaceae		CCH

⁹ * = Introduced/naturalized plant species. Bold = Special-status species (CNPS 2006, 2014). Scientific and common names follow Baldwin et al. (2013) and Flora of North America Editorial Committee (1993-2010).

- FACW = facultative wetland species, usually found in wetlands (67-99% probability).
- FAC = facultative species, equally likely to occur in wetlands or nonwetlands (34-66% probability).

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc

 $^{^{10}}$ WIS = Wetland Indicator Status. The following code definitions are according to Lichvar (2013):

OBL = obligate wetland species, occurs almost always in wetlands (>99% probability).

FACU = facultative upland species, usually found in nonwetlands (67-99% probability).

 $^{+ \}mbox{ or }$ - symbols are modifiers that indicate greater or lesser affinity for wetland habitats.

NI = no indicator has been assigned due to a lack of information to determine indicator status.

^{* =} a tentative assignment to that indicator status by Lichvar (2013).

Parentheses indicate a wetland status as suggested by David L. Magney based on extensive field observations over 30 years, and evidence discussed in the Methods – Problematic Indicators section.

 $^{^{11}}$ CCH = species collected within a 2-mile radius of the bank site and deposited in an herbarium participating in the Consortium of California Herbaria; Collected (and vouchered), Observed, or Photographed = species encountered DMEC and the respective documentation.



Scientific Name ⁹	Common Name	Family	WIS ¹⁰	Evidence ¹¹
Chamaesyce ocellata ssp. ocellata	Valley Spurge	Euphorbiaceae		ССН
Chenopodium incanum var.				
occidentale	Pigweed	Chenopodiaceae		ССН
Chenopodium strictum var.				
glaucophyllum *	White-leaved Goosefoot	Chenopodiaceae		CCH
Chilopsis linearis var. arcuata	Desert Willow	Bignoniaceae	FACU(FACW)	collected
Chorizanthe brevicornu var.				
brevicornu	Brittle Spineflower	Polygonaceae	(FACU)	collected
Chorizanthe rigida	Rigid Spineflower	Polygonaceae		collected
Chylismia brevipes ssp. brevipes	Yellow Cups	Onagraceae		ССН
Chylismia claviformis ssp.				
aurantiaca	Pinnate-leaved Primrose	Onagraceae		ССН
Chylismia claviformis ssp.				
claviformis	Clavate-fruited Primrose	Onagraceae		collected
Cleomella obtusifolia	Mojave Stinkweed	Cleomaceae		collected
Cressa truxillensis	Alkali Weed	Convolvulaceae	FACW	collected
Croton californicus	California Croton	Euphorbiaceae		CCH
Cryptantha angustifolia	Narrow-leaved Forget-Me-Not	Boraginaceae	(FACU)	collected
Cryptantha barbigera var. barbigera	Bearded Forget-Me-Not	Boraginaceae		CCH
Cryptantha circumscissa	Cushion Forget-Me-Not	Boraginaceae		CCH
Cryptantha costata	Ashen Forget-Me-Not	Boraginaceae		ССН
Cryptantha maritima	Guadalupe Is. Forget-Me-Not	Boraginaceae		ССН
Cryptantha micrantha var.				
micrantha	Red-root Forget-Me-Not	Boraginaceae		ССН
Cryptantha nevadensis	Nevada Forget-Me-Not	Boraginaceae		ССН
Cryptantha pterocarya var.				
pterocarya	Winged-nut Forget-Me-Not	Boraginaceae		CCH
Cucurbita palmata	Coyote Melon	Cucurbitaceae		collected
Dalea mollissima	Downy Dalea	Fabaceae		CCH
Dicoria canescens	Desert Dicoria	Asteraceae		CCH
Dieteria canescens var. canescens	Hoary-aster	Asteraceae		collected
Distichlis spicata	Saltgrass	Poaceae	FAC(FACW)	ССН
Dithyrea californica	Spectacle Pod	Brassicaceae		collected
Encelia farinosa	Brittlebush	Asteraceae		collected
<i>Ephedra</i> sp.	Mormon Tea	Ephedraceae		collected
Eremalche exilis	White Mallow	Malvaceae	(FACU)	collected
Eremalche rotundifolia	Desert Fivespot	Malvaceae		collected
Eremothera [Camissonia] boothii	Booth Desert Primrose	Onagraceae	(FACU)	collected
Eriogonum inflatum var. inflatum	Desert Trumpet	Polygonaceae		collected
Eriogonum reniforme	Kidney-leaf Wild Buckwheat	Polygonaceae		CCH
Eschscholzia glyptosperma	Desert Golden Poppy	Papaveraceae		collected
Eschscholzia minutiflora	Small-flowered Poppy	Papaveraceae		collected
Eucrypta micrantha	Small-flowered Eucrypta	Boraginaceae		ССН
Funastrum hirtellum [Sarcostemma h.]	Trailing Townula	Apocynaceae	•	CCH
Geraea canescens	Hairy Desert Sunflower	Asteraceae	•	collected
Gilia sinuata	Rosy Gilia	Polemoniaceae	•	collected
Gilia stellata	Star Gilia	Polemoniaceae		CCH
Gilia tenuiflora ssp. amphifaucalis	Trumpet-throated Gilia	Polemoniaceae	•	CCH
Glyptopleura marginata	White-margined Waxplant	Asteraceae		ССН
Heliotropium convolvulaceum var.	-			
californicum	Morning-glory Heliotrope	Boraginaceae		CCH
Heliotropium curassavicum var.		<i>w</i>		
oculatum	Alkali Heliotrope	Boraginaceae	FACU	collected
Hesperocaulis undulata	Desert Lily	Agavaceae		collected
Hilaria rigida	Big Galleta	Poaceae		collected

 $Y: DMEC \ box{Lyons-Mojave} \ we than \ Delineation-FINAL \ Lyons-We than \ Delineation-Report-EC \ ronese \ Lake-DMEC-20151113. \ dots \ Low \ Lake-DMEC-20151113. \ dots \ Lake-DMEC-2015113. \ dots \$



Scientific Name ⁹	Common Name	Family	WIS ¹⁰	Evidence ¹¹
Isocoma acradenia var. acradenia	Alkali Goldenbush	Asteraceae	FACU	ССН
Langloisia setosissima var. punctata	Lilac Sunbonnet	Polemoniaceae	•	ССН
Langloisia setosissima var.				
setosissima	Bristly Langloisia	Polemoniaceae	•	collected
Larrea tridentata	Creosote Bush	Zygophyllaceae		Observed
Lepidium flavum	Yellow Peppergrass	Brassicaceae	UPL	collected
Lepidium lasiocarpum ssp.				
lasiocarpum	Shaggyfruit Peppergrass	Brassicaceae	•	collected
Lepidium nitidum	Shinny Peppergrass	Brassicaceae	FAC	collected
Linanthus arenicola	Sand Linanthus	Polemoniaceae	•	ССН
Loeseliastrum mathewsii	Desert Calico	Polemoniaceae	•	ССН
Loeseliastrum schottii	Scott Gilia	Polemoniaceae	•	collected
Logfia depressa	Hierba Limpia	Asteraceae	•	CCH
Lupinus shockleyi	Shockley Lupine	Fabaceae	•	collected
Malacothrix coulteri	Snake Heads	Asteraceae	•	collected
Malacothrix glabrata	Desert Dandelion	Asteraceae	(FACU)	CCH
Malvella leprosa	Alkali Mallow	Malvaceae	FACU	CCH
Mentzelia albicaulis	Whitestem Stickleaf	Loasaceae		ССН
Mentzelia desertorum	Desert Stickleaf	Loasaceae		ССН
Mentzelia obscura	Pacific Blazing Star	Loasaceae		ССН
Monolepis nuttalliana	Nuttall's Poverty Weed	Chenopodiaceae	FAC	ССН
Monoptilon bellioides	Desert Star	Asteraceae		Observed
Nama demissum var. demissum	Purple Mat	Boraginaceae		collected
Nama densa cf. var. parviflora	Purple Mat	Boraginaceae		collected
Nama hispidum	Bristly Nama	Boraginaceae		ССН
Nemacladus rubescens	Desert Threadplant	Campanulaceae		collected
Nicotiana obtusifolia	Desert Coyoto Tobacco	Solanaceae	FACU	collected
Oenothera deltoides ssp. deltoides	Desert Lantern	Onagraceae		collected
Oligomeris linifolia	Desert Cambess	Resedaceae		ССН
Orobanche cooperi	Cooper Broom-rape	Orobanchaceae		collected
Palafoxia arida var. arida	Desert Needle	Asteraceae	(FACU)	collected
Panicum urvilleanum	Silky Panic Grass	Poaceae	•	ССН
Pectis papposa var. papposa	Chinch Weed	Asteraceae	(FACU)	ССН
Pectocarya platycarpa	Wide-toothed Comb Bur	Boraginaceae	•	collected
Pectocarya recurvata	Arched-nut Comb Bur	Boraginaceae	(FACU)	collected
Perityle emoryi	Emory's Rock Daisy	Asteraceae	•	collected
Petalonyx thurberi ssp. thurberi	Thurber's Sandpaper Plant	Loasaceae	(FAC)	ССН
Peucephyllum schottii	Desert Pinebush	Asteraceae	•	collected
Phacelia crenulata var. ambigua	Purplestem Scorpionweed	Boraginaceae		ССН
Phacelia crenulata var. crenulata	Heliotrope Phacelia	Boraginaceae		collected
Phacelia ivesiana var. pediculoides	Ives' Phacelia	Boraginaceae		ССН
Phoradendron californicum	California Mistletoe	Viscaceae		collected
Physalis crassifolia	Thick-leaved Ground Cherry	Solanaceae		collected
Plagiobothrys jonesii	Jones' Popcornflower	Boraginaceae	•	ССН
Plantago ovata var. fastigiata	Desert Plantain	Plantaginaceae	FACU	collected
Plantago ovata var. ovata	Desert Plantain	Plantaginaceae	FACU	ССН
Pleurocoronis pluriseta	Arrowleaf	Asteraceae		ССН
Pluchea sericea	Arrow Weed	Asteraceae	FACW	collected
Prosopis glandulosa var. torreyana	Honey Mesquite	Fabaceae	UPL(FACW)	collected
Psorothamnus spinosus	Smoke Tree	Fabaceae	(FACW)	CCH
Rafinesquia neomexicana	Desert Chicory	Asteraceae		collected
Salsola gobicola *	Barbwire Russian Thistle	Chenopodiaceae		CCH
Salsola paulsenii *	Paulsen's Russian Thistle	Chenopodiaceae		ССН
Salsola tragus *	Russian Thistle	Chenopodiaceae	FACU(FAC)	collected



Scientific Name ⁹	Common Name	Family	WIS ¹⁰	Evidence ¹¹
Schismus barbatus *	Abu Mashi	Poaceae	(FAC)	collected
Sesuvium verrucosum	Western Sea-purslane	Aizoaceae	FACW	CCH
Sisymbrium irio *	London Rocket	Brassicaceae	(FACU)	collected
Spergularia marina	Saltmarsh Sand-spurrey	Caryophyllaceae	OBL	CCH
Stephanomeria exigua var. exigua	White-plume Wirelettuce	Asteraceae	•	collected
Stephanomeria pauciflora	Few-flowered Wirelettuce	Asteraceae		CCH
Stillingia spinulosa	Broad-leaved Stillingia	Euphorbiaceae		CCH
Streptanthella longirostris	Long-beaked Twistflower	Brassicaceae		CCH
Stutzia covillei [Atriplex phyllostegia]	Coville's Orach	Chenopodiaceae	FACW	collected
Suaeda nigra [S. moquinii]	Bush Seepweed	Chenopodiaceae	OBL	Observed
Tamarix aphylla *	Athel	Tamaricaceae	FAC	collected
Tamarix chinensis *	Fivestamen Tamarisk	Tamaricaceae	FAC	CCH
Tamarix ramosissima *	Saltcedar	Tamaricaceae	(FAC)	collected
Tidestromia suffruticosa var.				
oblongifolia	Honeysweet	Amaranthaceae	•	ССН
Tiquilia plicata	Fan-leaved Tiquilia	Boraginaceae	•	collected
Verbena bracteata	Large-bracted Verbena	Verbenaceae	FAC	ССН

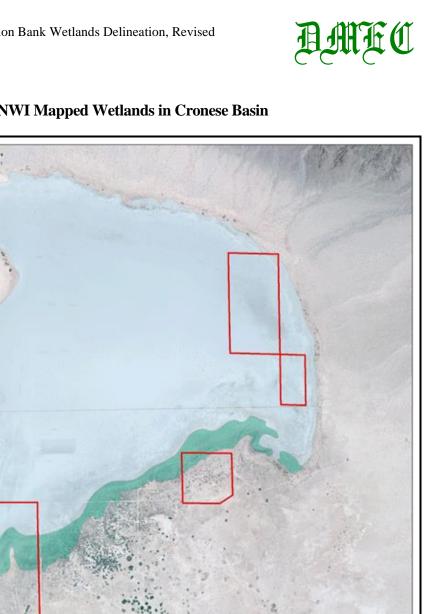
Additional plant species are expected to occur on the Bank Site but where not observed since a number of annual species only emerge under specific environmental conditions, which were not present during the 2013-2014 field surveys.

MAPPED WETLAND HABITATS

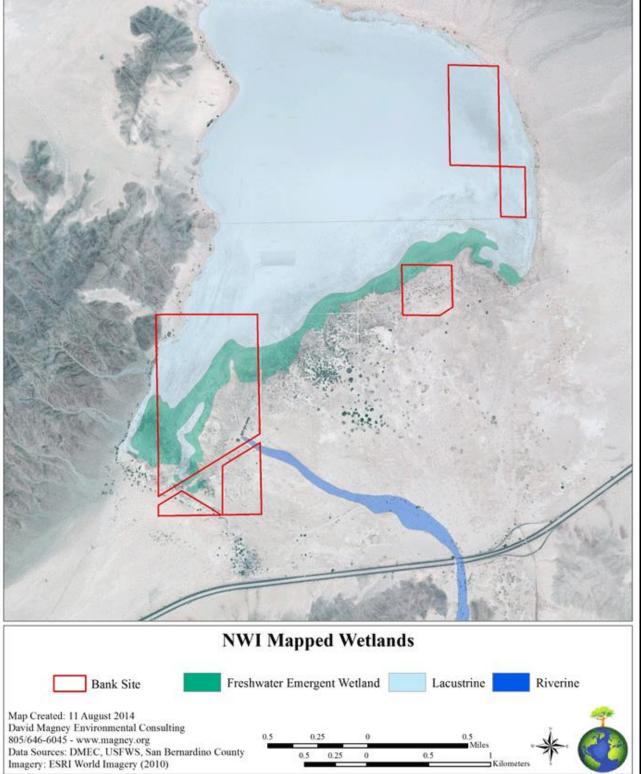
The U.S. Fish and Wildlife Service (USFWS) have been conducting an ongoing effort to map and catalogue wetlands within the United States, the National Wetlands Inventory (NWI, USFWS 2014). The NWI has mapped several types of wetland habitats present on and near the Bank Site, as illustrated in Figure 17, NWI Mapped Wetlands in Cronese Basin. However, the NWI is an ongoing effort, and is not a comprehensive inventory of all wetlands nationwide. Some areas have been mapped in much greater detail relative to other areas.

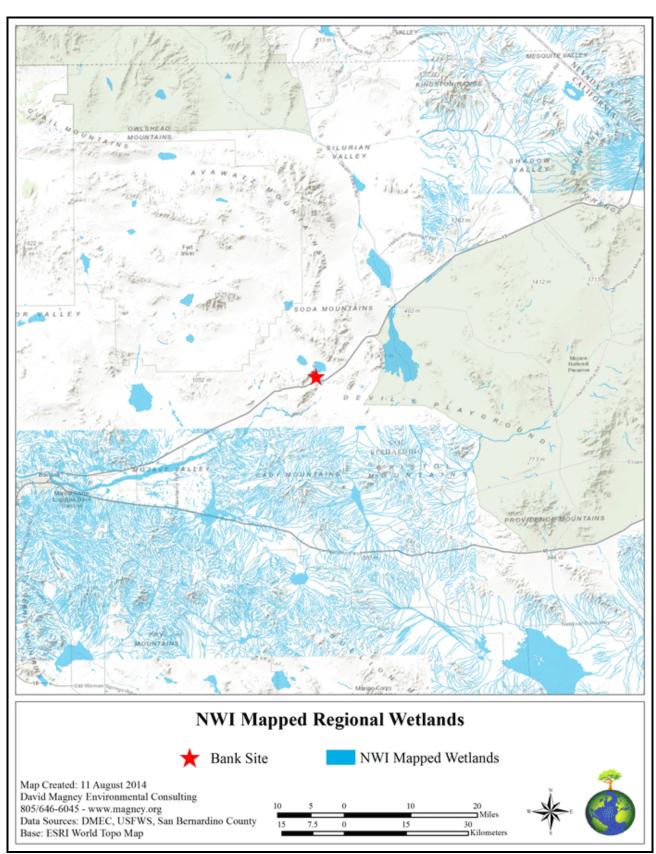
The Bank Site is located in an area that is relatively poorly mapped when compared to other areas in the region. These disparities in mapping accuracy are apparent when viewing the Bank Site at a regional scale, as illustrated in Figure 18, Regional NWI Mapped Wetlands.

DMEC has observed significantly greater extent and variation in wetland habitats on and near the Bank Site than are included in the NWI mapping. There is substantial overlap and intergradation between wetland habitats around East Cronese Lake. There is also likely significant conversion between habitat types following flood events. The individual habitats observed are discussed in the following section.











TEC



HABITAT TYPES PRESENT ONSITE

The Bank Site contains upland, riparian, and wetland habitats on steep slopes, on the surface and in the floodplain of East Cronese Lake and contributing drainages.

Vegetation (plant communities) of the East Cronese Lake basin is classified according to two systems: The National Vegetation Classification System for California (Sawyer et al. 2009) and the USFWS Wetlands Classification System (Cowardin et al. 1979).

The Bank Site vegetation is comprised of three predominant habitat groups, including Sonoran-Coloradan Semi-desert Wash Scrub, Lower Bajada and Fan Mojavean-Sonoran Desert Scrub, and Southwestern North American Salt Basin and High Marsh. Specifically the Bank Site habitats are classified as the following by Sawyer et al. (2009) and as suggested by DMEC (2015a):

Sonoran-Coloradan Semi-desert Wash Scrub

0

- o Prosopis glandulosa Woodland Alliance (Mesquite Bosque)
 - Prosopis glandulosa/Atriplex canescens Association
 - Prosopis glandulosa/Pluchea sericea-Atriplex canescens Alkali Spring Association
- Lower Bajada and Fan Mojavean-Sonoran Desert Scrub
 - Larrea tridentata Shrubland Alliance (Creosote bush scrub)
 - Larrea tridentata-Atriplex canescens Association
 - Larrea tridentata-Ambrosia salsola Association
 - Larrea tridentata/Eriogonum inflatum Association
 - *Larrea tridentata/*Wash
- Southwestern North American Salt Basin and High Marsh
 - Atriplex torreyi Provisional Shrubland Alliance (Saltbush Scrub)¹²
 - Suaeda [moquinii] nigra Shrubland Alliance (Bush Seepweed Scrub)
 - *Tamarix ramosissima* Stand (Tamarisk Thickets)
 - Cressa truxillensis-Distichlis spicata Herbaceous Alliance (Alkali Weed and Saltgrass)
 - Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association (Alkali Weed-Saltgrass Playas and Sinks)¹³

The predominant wetland habitat type onsite is classified within the Palustrine System, according to the U.S. Fish and Wildlife Service (USFWS) *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979); however, there are also habitats classified within the Riverine and Lacustrine Systems onsite. The general Cowardin classification types in the vicinity of East Cronese Lake are identified and illustrated in Figure 19 below.

While a clear distinction exists between upland and wetland habitats (i.e. change in vegetation, elevation, and/or soils), often no clear distinction exists among different wetland habitats due to a substantial ecotonal gradient between habitats (i.e. a low-gradient river delta entering a lake). This gradient is likely directly related to the duration of inundation, which is in turn a product of the dynamic Mojave River Delta and the variable extent of ponded waters, as East Cronese Lake is filled and then recedes.

¹² See Appendix B for a copy of the CNPS/CDFW Releveé Field Form for this newly described vegetation alliance.

¹³ See Appendix B for a copy of the CNPS/CDFW Releveé Field Form for this newly described plant association.



Palustrine Habitats

According to Cowardin et al. (1979) the Palustrine System includes all nontidal wetlands that are dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5‰. The Palustrine System also includes wetlands that lack such vegetation but have the following three characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth. The Palustrine System is bounded by upland or by any of the other four wetland systems: Riverine, Lacustrine, Marine, and Estuarine.

Within the Palustrine System there are several classes present on the Bank Site. Substantial localized variation in total vegetative cover and dominant species is present within the Palustrine System on the Bank Site, constituting several classes as defined by Cowardin et al. (1979). All classes present are classified as Intermittently Flooded; these systems have substrate which is usually exposed but surface water is present for variable periods and without detectable seasonal periodicity. It is possible for periods of weeks, months, and years of exposed substrate to pass between periods of present surface water. The classes present on the Bank Site are:

- Scrub-Shrub Broad-leaved Evergreen Wetland is characterized by woody vegetation that is less than six meters tall (true shrubs or young trees), in the case of the Bank Site, dominated by *Atriplex torreyi* var. *torreyi* (*Atriplex torreyi* Provisional Shrubland Alliance)
- Scrub-Shrub Broad-leaved Deciduous Wetland is characterized by woody vegetation that is less than six meters tall (true shrubs or young trees), in the case of the Bank Site, dominated by primarily by *Prosopis glandulosa* var. *torreyana* (*Prosopis glandulosa* Woodland Alliance).
- Scrub-Shrub Needle-leaved Evergreen Wetland is characterized by woody vegetation that is less than six meters tall (true shrubs or young trees), in the case of the Bank Site, dominated by *Tamarix ramosissima* Stand.
- Scrub-Shrub Dead Wetland is characterized by dead woody vegetation that is less than six meters tall (true shrubs or young trees) usually resulting from an impoundment of water.
- Unconsolidated Bottom is characterized by at least 25% cover of particles smaller than stones, and vegetative cover less than 30%. Cowardin et al. (1979) restricts this class to subtidal, permanently flooded, intermittently exposed, and semi-permanently flooded water regimes. Considering the nature of the East Cronese Playa bottom, DMEC finds it appropriate to consider this class in regards to intermittently flooded water regime as well. The sediment of the playa surface in combination with certain sparse vegetation patches is characteristic of the unconsolidated bottom class.
- Emergent Wetland is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. In areas of climactic fluctuation, large precipitation or flood events can cause emergent wetlands to revert to an open water phase periodically. Considering the nature of the East Cronese Playa bottom and its dominant vegetation (*Atriplex torreyi* var. *torreyi* and *Tamarix ramosissima*), DMEC finds it appropriate to consider this class despite the lack of true herbaceous hydrophytes. The clear division between the playa surface vegetation alliances and upland alliances is a function of the periodic flooding of the playa surface and is characteristic of the emergent wetland class. Emergent Wetland is also included in the map of the project area, illustrated in Figure 17, USFWS NWI Wetlands.

There are approximately 1,713 acres of Palustrine habitat within the East Cronese Lake basin, with 379.42 acres occurring within the Lyons' parcels.



Riverine Habitats

According to Cowardin et al. (1979) the Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, and persistent emergent, emergent mosses or lichens, and (2) habitats with water containing oceanderived salts in excess of 0.5‰. The Riverine System is bounded on the landward side by upland, by the channel bank (including man-made and natural levees), or by Palustrine System habitats. In braided streams, the system is bounded by the banks forming the outer limits of the depression within which the braiding occurs. It terminates at the downstream end where the concentration of ocean-derived salts in the water exceeds 0.5‰ or where the channel enters a lake. All habitats classified within the Riverine System present onsite are also classified within the Intermittent Subsystem. The Intermittent Subsystem is defined as Riverine habitats in which the channel contains flowing water for only part of the year, and when the water is not flowing it may remain in isolated pools or surface water may be absent. Within the Intermittent Riverine System there are several classes present onsite.

- Streambed is characterized as all wetland contained within all channels of the Intermittent Riverine Subsystem, the Estuarine system, or the Tidal Riverine Subsystem. Streambeds vary greatly in substrate and form, which are primarily dependent upon the gradient of the channel, the velocity of water, and the sediment load. Complex patterns of bars may form and be included as islands within a bed of braided streams. Typically streambeds are not vegetated because of the scouring effect of water, but they may be colonized by "pioneering" annuals or perennials during periods of low flow, or they may have perennial emergent and shrubs that are too scattered to qualify the area for classification as Emergent Wetland or Scrub-Shrub Wetland. The majority of Streambed habitats present onsite are classified within the Sand Subclass. These habitats often contain bars and beaches, and there are many interspersed areas with Cobble-Gravel Streambed Subclass in areas of fast flow or heavy sediment load.
- Unconsolidated Bottom is characterized by at least 25% cover of particles smaller than stones, and vegetative cover less than 30%. Cowardin et al. (1979) restricts this class to sub-tidal, permanently flooded, intermittently exposed, and semi-permanently flooded water regimes. Considering the nature of the Mojave River, and other tributaries of East Cronese Lake, DMEC finds it appropriate to consider this class in regards to intermittently flooded water regime as well. The sediment of the playa fringe in combination with certain sparse vegetation patches is characteristic of the unconsolidated bottom class.
- Unconsolidated Shore is characterized by all wetland habitats with three primary traits; (1) unconsolidated substrates less than 75% areal cover of stones, boulders, or bedrock; (2) less than 30% areal cover of vegetation other than pioneering plants; and (3) one of several different water regimes, including intermittently flooded. Erosion and deposition creates a number of landforms such as beaches, bars, and flats. Unconsolidated Shore habitats present on the bank site are primarily classified within the Sand Subclass. The Sand Subclass is characterized by unconsolidated substrate that is primarily sand; however, on the Bank Site there are also many interspersed areas with Cobble-Gravel substrates as well.
- Emergent Wetland is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. In areas of climactic fluctuation, large precipitation or flood events can cause emergent wetlands to revert to an open water phase periodically. Considering the nature of the East Cronese Playa, the Mojave River and tributaries, DMEC finds it appropriate to consider this class despite the lack of true herbaceous hydrophytes in many



areas. The clear division between the desert wash vegetation alliances and upland alliances is a function of the periodic flooding of the playa surface and is characteristic of the emergent wetland class. Emergent Wetland is also included in the USFWS NWI map of the Bank Site area, as illustrated in Figure 17 above.

There are approximately 298.25 acres of Riverine habitat within the East Cronese Lake basin, with 19.56 acres occurring within the Lyons' parcels.

Lacustrine Habitats

According to Cowardin et al. (1979) the Lacustrine System includes wetlands and deepwater with the following characteristics: (1) situated in a topographic depression; (2) lacking greater than 30% areal coverage of vegetation; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deepwater habitats that total less than 8 ha (20 acres) are included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 meters. Lacustrine waters always contain less than 0.5‰ ocean-derived salts. The Lacustrine System is bounded by upland or Palustrine System habitats. Where a river meets a lake, the extension of the Lacustrine shoreline forms the Riverine-Lacustrine boundary. Cowardin et al. (1979) specifies that "the Lacustrine System includes permanently flooded lakes (e.g. Lake Superior), intermittent lakes (e.g. playa lakes), and tidal lakes...". Islands of Palustrine wetland may lie within the boundaries of the Lacustrine System.

The Lacustrine System is divided into two Subsystems: (1) the Limnetic Subsystem includes all deepwater habitats within the Lacustrine System, (2) the Littoral Subsystem includes all wetland habitats within the Lacustrine System, from the shoreward boundary of the system to a depth of 2 meters or to the maximum extent of non-persistent emergent, if these grow at depths greater than 2 meters. It is likely that during lesser flooding events the playa surface is covered by water of a depth less than 2 meters, while larger flood events can create depths of greater than 2 meters in areas of East Cronese Lake. Thus the extent of Limnetic and Littoral Subsystems is directly dependent upon the severity of the flood event.

The majority of potentially Lacustrine System habitats present on the Bank Site are dominated by greater that 30% areal coverage of persistent vegetation, which qualifies them as Palustrine System, despite inundation being visible in historic Landsat imagery (see Figures 4, 5, and 6). Flood events could convert Palustrine System Habitats to Lacustrine Habitats if persistent vegetation is killed off due to long periods of inundation; however, the majority of playa surface present on the Bank Site is dominated by *Atriplex torreyi* var. *torreyi*, which has been documented as tolerant of flooding (Dobrowolski et al. 1990). This tolerance is likely a significant mechanism driving community distribution. Lacustrine System habitats (not dominated by vegetation) are present only on the southwestern corner of the Northern parcel, furthermore; the Lacustrine System has profound influence upon all surrounding wetland habitats and the entirety of the bank site.

There are approximately 915.75 acres of Lacustrine habitat within the East Cronese Lake basin, with 19.42 acres occurring within the Lyons parcels.

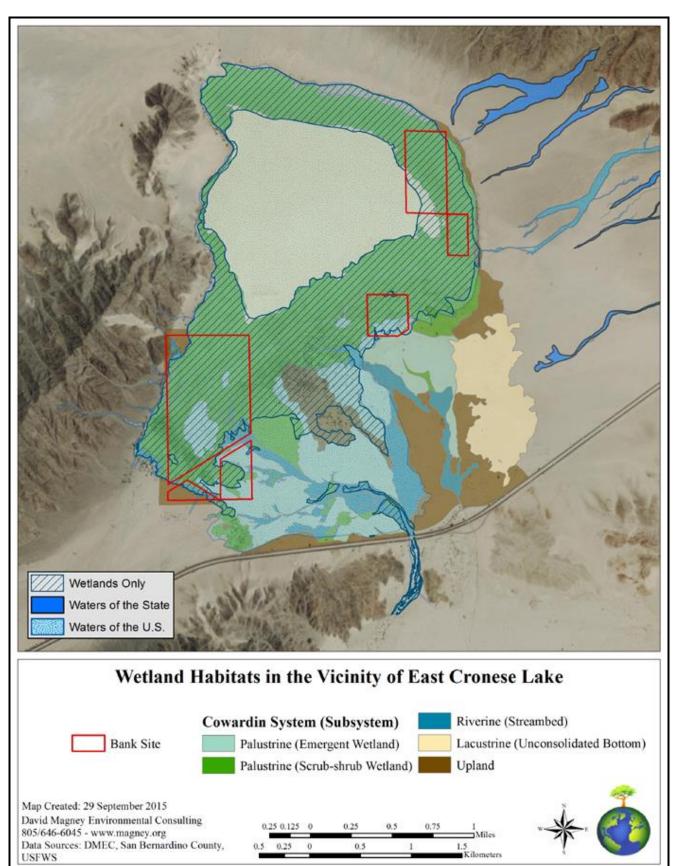
The vegetated Palustrine, Lacustrine, and Riverine wetland habitats observed onsite are described in more detail below as follows:

Atriplex torreyi Provisional Alliance (Torrey Saltbush Scrub); Prosopis glandulosa Woodland Alliance (Mesquite Bosque); Suaeda nigra Shrubland Alliance (Bush Seepweed Scrub); Tamarix ramosissima Stand; and



Cressa truxillensis-Distichlis spicata Herbaceous Alliance (Alkali Weed and Saltgrass) Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association (Alkali Weed-Saltgrass Playas and Sinks)

These habitats are discussed in the following subsections as suggested by DMEC, following conventions of Sawyer et al. (2009). The general habitat types present on the Bank Site are illustrated below in Figure 20, Land Cover in the Vicinity of East Cronese Lake. The vegetation alliances that constitute the general habitat types as classified by Cowardin et al. (1979) are defined and illustrated in Figure 22, Wetland Habitats in the Vicinity of East Cronese Lake.





HO

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc



VEGETATION ALLIANCES OF EAST CRONESE VALLEY

Below are detailed descriptions of each of the wetland vegetation alliances observed in the East Cronese Valley. Upland vegetation alliances are described fully in the Biological Resources report (DMEC 2015).

Atriplex torreyi Provisional Shrubland Alliance

Atriplex torreyi Provisional Shrubland Alliance (Torrey's Saltbush Scrub) is dominated by *Atriplex torreyi* var. *torreyi* (Torrey's Saltbush), which is a broad-leaved, evergreen, generally rounded shrub with pale brown to grey bark, sharp angled striate twigs, and pale green to grey, ovate to deltate-shaped leaves. *Atriplex torreyi* var. *torreyi* is uncommon but widely distributed east of the Sierra Nevada, through the Mojave Desert and into southwestern Utah. *Atriplex torreyi* occurs predominantly in dry lakes and washes with saline clayey soils, from 300 to 2,200 meters elevation (Zacharias 2013a). *Atriplex torreyi* has a WIS of FAC (Lichvar 2013).

Atriplex torreyi Provisional Alliance was observed inhabiting major areas of the East Cronese Lake playa bottom. The playa bottom is comprised of a network of patches and swales with varying degrees of absolute vegetation coverage, dominant species, and dead vegetation. Most undisturbed or uninvaded areas are dominated by *Atriplex torreyi* var. *torreyi*, which is associated with a variety of herbaceous annuals, including but not limited to: *Pectocarya recurvata* (Arched-nut Combseed), *Amsinckia tessellata* var. *tessellata* (Desert Fiddleneck), *Cryptantha angustifolia* (Narrow-leaved Forget-Me-Not), and *Schismus* spp. (Arabian and Mediterranean Grass). Scattered individuals of *Tamarix ramosissima* (Saltcedar) are also commonly found in *Atriplex torreyi* var. *torreyi* dominated areas.



Atriplex torreyi Provisional Shrubland Alliance





Atriplex torreyi shrub and leaves and young fruit.

The playa surface on the northern portion of the Southwestern parcel is primarily *Atriplex torrey*i Provisional Alliance, *Tamarix ramosissima* individuals become increasingly common moving south, eventually becoming dominant. *Atriplex torreyi* var. *torreyi* has been documented by Dobrowolski et al. (1990, as cited in Brostoff et al. 2001) as being very tolerant of flooding. This tolerance likely allows the species to persist and establish dominance on areas of the playa surface that are more frequently inundated. The majority of the Northern parcels are dominated by dense *Atriplex torreyi* Provisional Alliance and there are scattered individuals present on the Eastern parcel. Only several isolated individuals have been observed on the Southeastern parcel.

Prosopis glandulosa Woodland Alliance

Prosopis glandulosa Woodland Alliance (Mesquite Bosque, Mesquite Thicket) is dominated by Prosopis glandulosa var. torreyana (Honey Mesquite), which is a woody tree or shrub, primarily functioning as a shrub on the Bank Site parcels. It has feathery green leaves, and is winter deciduous. The small yellow flowers occur in dense dangling spikes, resembling catkins. P. glandulosa var. torreyana is a phreatophyte. It is dependent upon a permanent supply of groundwater, sending roots up to 15 meters deep to tap into water sources. It is found in deserts, commonly along the fringes of playa lakes, stream banks, floodplains, and margins of arroyos and washes below 1,100 meters elevation. P. glandulosa var. torreyana is assigned WIS of UPL (Lichvar 2014). However, DMEC, as well as other competent desert botanists¹⁴, disagrees with this assignment. P. glandulosa var. torreyana is very strongly associated with the fringes various wetlands and is a reliable indicator of the presence of a relatively shallow groundwater table or access to permanent water. Due to its typical habitat of areas along playa fringes and stream banks, DMEC believes that P. glandulosa var. torreyana should be assigned a WIS of at least FAC if not FACW. Sawyer et al. (2009) classifies Prosopis glandulosa Woodland Alliance as "Sonoran-Coloradan Semi-desert Wash Scrub" and cites several populations as "riparian". Lichvar & Dixon (2007) characterize Prosopis glandulosa as both a "Dry Wash Species" and a "Dry Wash Phreatophyte", stating that, "These species, known and obligate phreatophytes, are usually limited

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc

¹⁴ Tim Thomas (retired botanist with the U.S. Fish & Wildlife Service) and Jim Andre (UC Reserve Manager, Granite Mountains Research Station), botanists very familiar with the flora of the Mojave Desert, personal communications in 2014.



to the narrow, gallery forest directly adjacent to the channel...". These patterns have been very clearly observed in the Cronese Basin, as discussed below.



Prosopis glandulosa Woodland Alliance

Prosopis glandulosa var. *torreyana* was observed inhabiting areas along the fringes of the East Cronese Lake playa bottom. A distinct band of *P. glandulosa* var. *torreyana* around the edges of the playa surface serves as a clear indicator of the edge of the wetland zone. However, dense *P. glandulosa* var. *torreyana* woodlands are also found in infrequently flooded and raised dune areas within the network of swales and washes that form the Mojave River Delta, which feeds floodwaters into the Cronese Basin (much of the Southwestern parcel). Scattered annual herbs are found among *Prosopis glandulosa* var. *torreyana* woodlands, sometimes forming dense clusters in openings, these herbaceous species primarily include: *Pectocarya recurvata* (Arched-nut Combseed), *Amsinckia tessellata* var. *tessellata* (Desert Fiddleneck), and *Schismus* spp. Scattered individuals of *Larrea tridentata* and *Tamarix ramosissima* occur in the playa fringe communities.

Suaeda nigra Shrubland Alliance

Suaeda nigra Shrubland Alliance (Bush Seepweed Scrub) is dominated by *Suaeda nigra* [formerly called *S. moquinii*] (Bush Seepweed), which is a shrub or subshrub, typically less than 1.5 meters tall. It has small linear to narrowly lanceolate-shaped leaves, 1 to 3 centimeters long, that can range from yellowish green to red to dark purple, appearing black. The flowers occur in clusters of 1 to 12 along the stems. It is found in desert and semi-desert habitats, often in saline and/or alkaline soils, on flat to gently sloping valley bottoms, playas, and toe slopes adjacent to alluvial fans, and bajadas below 1,300 meters elevation. *S. nigra* is assigned WIS of OBL (Lichvar 2014).

Suaeda nigra was observed inhabiting areas along the eastern fringes of the East Cronese Lake playa bottom, occupying the majority of the Eastern parcel. Its distribution is quite restricted to one distinct stand on the eastern fringe of East Cronese Lake; however it is somewhat more widespread around the fringes of West Cronese Lake. The densest stands occur on the eastern fringes of both east and west Cronese Lakes.

This distribution is presumed to be a function of the prevailing winds from the west which, in states of inundation, push the standing surface water to the east thereby concentrating evaporates and creating soil conditions favorable to *S. nigra*. Scattered annual herbs are found among *S. nigra* shrublands, sometimes forming dese clusters in openings, these herbaceous species primarily include: *Pectocarya recurvata* (Arched-nut Combseed), *Amsinckia tessellata* var. *tessellata* (Desert



Fiddleneck), and *Schismus* spp. *Suaeda nigra* Shrubland is also associated with scattered individuals and patches of *Stutzia covillei, Lepidium nitidum*, and *Cressa truxillensis*.



Suaeda nigra dominated playa flats in East Cronese Lake.



Suaeda nigra shrub and leaves.

Tamarix ramosissima Stand

Tamarix ramosissima Stand (Tamarisk Thicket)is dominated by *Tamarix ramosissima* (Saltcedar), which is a woody tree or shrub, primarily functioning as a shrub on the Bank site. It has scale-like green leaves, turning brown and deciduous during times of drought. The flowers are fluffy white to pink racemes. Native to Asia, it has naturalized in and aggressively invaded wetland and riparian habitats of the southwestern United States. While common and highly invasive in southern California and northern Mexico, it is also found as widespread as Washington and Louisiana. It occurs in washes and along streambanks below 200 meters elevation (Gaskin 2012).



Tamarix ramosissima is assigned no WIS in the most recent listing (Lichvar et al. 2014). DMEC suggests here that *T. ramosissima* be treated as FACW or FAC. All other species of the genus *Tamarix* are treated as FAC or FACW within the Arid West Region in the most recent listing (Lichvar et al. 2014), with which *T. ramosissima* shares a very similar life history. In both the previous Reed lists (1988 & 1997) *T. ramosissima* was treated as FAC in California.

Tamarix ramosissima was observed inhabiting major areas of the East Cronese Lake playa bottom and shorelines. The playa bottom is comprised of a network of patches and swales with varying degrees of absolute vegetation coverage, dominant species, and dead vegetation. *Tamarix ramosissima* becomes increasingly dominant moving southward on the East Cronese Playa bottom. Particularly along the southwestern portion, the east-central side of the Southwestern parcel, and into the adjacent property to the east, *Tamarix ramosissima* forms dense thickets with individuals occasionally reaching over 3 meters high. Scattered annual herbs are found among *Tamarix ramosissima* stands, sometimes forming dese clusters in openings, these herbaceous species primarily include: *Pectocarya recurvata, Amsinckia tessellata* var. *tessellata*, and *Schismus* spp. Scattered individuals are common among *Atriplex torreyi* Alliance, and some areas dominated by *Tamarix ramosissima* contain scattered individuals of *Atriplex torreyi* var. *torreyi*. The Southeastern parcel is also dominated by *Tamarix ramosissima* where vegetated, likely a result of *Tamarix ramosissima* colonizing following the historic disturbance due to plowing.



Tamarix ramosissima dominating East Cronese Lake, some thriving, some dead or dormant.





Tamarix ramosissima *habit* (*large shrub*) and *flowers*.

Cressa truxillensis-Distichlis spicata Herbaceous Alliance

Cressa truxillensis-Distichlis spicata Herbaceous Alliance (Alkali Weed-Saltgrass Grassland) is an low-growing herbaceous plant community occurring on saline and alkaline sinks and playas (Sawyer et al. 2009). This alliance is represented in the Cronese Basin in East Cronese Lake by a previously undescribed plant association so far unique to East Cronese Lake: *Stutzia covillei-Lepidium nitidum-Cressa truxillensis* Provisional Herbaceous Association. It is dominated by *Stutzia covillei* (Coville's Saltbush) and *Lepidium nitidum* (Shiny Peppergrass), with a minor representation by *Cressa truxillensis* (Alkali Weed) as a subdominant. *Stutzia covillei* and *Lepidium nitidum* are both broad-leaved, spring-flowering annuals that are either typically or often found in saline wetland sites.



Left: Cressa truxillensis habit and habitat. Right: Close-up of Cressa truxillensis flowers and leaves.

Stutzia covillei (Standl.) E.H. Zacharias [*Atriplex covillei* (Standl.) J.F. Macbr., *Atriplex phyllostegia* (Torr. ex S. Watson) S. Watson; *Endolepis covillei* Standl.] is uncommon but widely distributed in the San Joaquin Valley and east of the Sierra Nevada through the Mojave Desert and into southern Nevada (many occurrences in the San Joaquin Valley have been extirpated). *Stutzia covillei* occurs predominantly in dry lakes and flats with saline clayey soils, from below 2,100 meters elevation (Zacharias 2013b). *Stutzia covillei* (as *Atriplex phyllostegia*) has a WIS of FACW (Lichvar et al. 2014).

Lyons – Mojave River Watershed Mitigation Bank Wetlands Delineation, Revised DMEC PN: 12-0004 30 September 2015 Page 59



Lepidium nitidum Nutt. [*Lepidium nitidum* var. *howellii* C.L. Hitchc.; *Lepidium nitidum* var. *oreganum* (Greene) C.L. Hitchc.] is a puberulent (very small hairs) erect to decumbent annual herb in the Mustard family (Brassicaceae). It is an early blooming species that is typically in fruit by February and March. *Lepidium nitidum* occurs in alkaline soils, meadows, pastures, vernal pools, fields, and beaches <1,000 m. It ranges from Washington to Baja California, Mexico. *Lepidium nitidum nitidum* has been assigned a FAC WIS (Lichvar et al. 2014).

Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association was observed inhabiting large areas of the East Cronese Lake playa bottom, primarily along the eastern side. The playa bottom is comprised of a network of patches and swales with varying degrees of absolute vegetation coverage, dominant species, and dead vegetation. Associated species observed with the dominants include: Amsinckia tessellata var. tessellata, Chaenactis stevioides (Esteve Pincushion), Cryptantha angustifolia, Dieteria canescens var. canescens (Hoary Aster), Malacothrix glabrata (Desert Dandelion), Salsola tragus (Russian Thistle), Sisymbrium irio (London Rocket), and Schismus spp. Suaeda nigra and Atriplex torreyi var. torreyi occur nearby.



Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association occurring in the bottom of the playa lake in the vicinity of the Eastern parcel of the Bank Site.





Left: Stutzia covillei. Right: Lepidium nitidum with Cressa truxillensis.

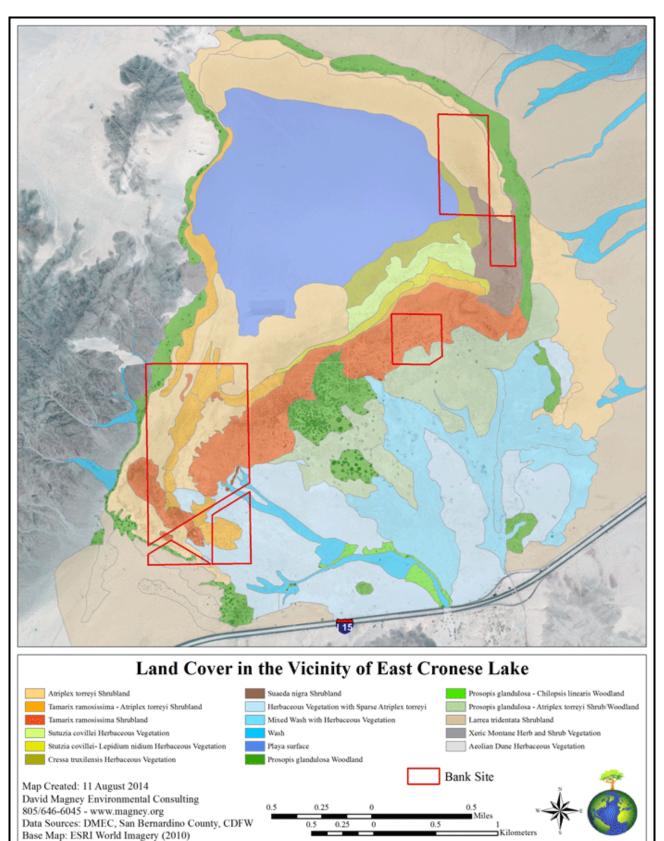
USFWS CLASSIFICATION OF WETLANDS

The USFWS classification of wetlands of the United States (Cowardin et al. 1979) differentiates wetland habitats based on landscape position, hydrology, and the form of vegetation, generally ignoring the identity of the dominant or characteristic species. Three basic forms are found in the East Cronese Lake basin: Palustrine, Riverine, and Lacustrine, which are described in detail above.

The vegetated Palustrine, Lacustrine, and Riverine wetland habitats observed onsite and described above include:

- Atriplex torreyi Provisional Shrubland Alliance (Torrey Saltbush Scrub);
- Prosopis glandulosa Woodland Alliance (Mesquite Bosque)
- Suaeda nigra Shrubland Alliance (Bush Seepweed Scrub)
- Tamarix ramosissima Stand
- Cressa truxillensis-Distichlis spicata Herbaceous Alliance
- Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association

The predominant wetland habitat type onsite is classified within the Palustrine System; however there are also habitats classified within the Riverine and Lacustrine Systems onsite. These wetland habitat types are illustrated in Figure 19. Refer to the previous discussion (pages 47 - 57) for a more complete explanation.





HU



MAPPED SOIL UNITS

The Natural Resources Conservation Service (NRCS) has no available detailed data for the Bank Site. The NRCS California Soil Survey Status map (NRCS 2013) lists the Mojave Desert Area, California (CA695) as a non-project area. Query of the fine-scale NRCS Web Soil Survey (NRCS 2014) maps the Bank Site as "NOTCOM" with no digital data available. However, the broad-scale NRCS General Soils Map of the United States (STATS2GO Database, also accessed through Web Soils Survey, NRCS 2014) maps the Bank Site as containing Rositas-Carrizo Association, Cajon-Arizo, Playas, and Tecopa-Rock Outcrop-Lithic Torriorthents Association.

Figure 21, NRCS Mapped Soils, illustrates the NRCS defined soil boundaries in relation to the Bank Site. These associations are not included in the National List of Hydric Soils 2014 (NRCS 2014a). The NRCS General Soils Map is intended for use at the regional planning level and is not entirely accurate at finer-scale levels. Errors in soil boundaries are evident in Figure 21, particularly just west of the Southwestern parcel boundary where "Playa" soils clearly extend onto rocky mountainside. However, the general classifications and associations for the East Cronese Lake area, as defined by NRCS, are still valid and useful regardless of the roughly defined boundaries. The NRCS classified soil series present at each DMEC sampled plot is summarized in Table 9, Soils/Plot Series at the Bank Site.

Rositas-Carrizo Association

The **Rositas-Carrizo Association** is classified according to the description provided by Bowman, Soil Conservation Service (1973). This association occurs in the desert. It is comprised of soils that developed in alluvium derived from mica schist and acid igneous rock. It supports desert shrub, cactus, and annual herb vegetation communities. Rositas soils are somewhat excessively drained, light to brownish-grey loamy coarse sands to fine sand. Carrizo soils are excessively drained, very pale brown and very gravelly sands.

Cajon-Arizo Association

The **Cajon-Arizo Association** is classified according to the NRCS (2014b) official soil series descriptions for Cajon and Arizo series' independently.

The Cajon series is among the mixed, thermic Typic Torripsamments class consisting of very deep, somewhat excessively drained soils that forms in sandy alluvium from dominantly granitic rocks. Cajon soils are on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces. Cajon soils have a mostly gravel sized rock fragment control section. They support mostly desert shrubs including Creosote Bush, Saltbush, Joshua Trees, and annual grasses and forbs among others.

The Arizo series is among the sandy-skeletal, mixed, Typic Torriorthents class consisting of very deep, excessively drained soils that formed in mixed alluvium. Arizo soils are on recent alluvial fans, inset fans, fan apron, fan skirts, stream terraces, floodplains of intermittent streams and channels. It medium-sized gravel and larger rock fragment control section and supports mainly Creosote Bush and Burrobush.

Playas

Playas are geomorphic surfaces that occupy the lowest portion of an undrained depression or basin. Playas is not a distinct described soil association, and this classification within the General Soils



Map (NRCS 2014) is apparently a rough-scale generalization of playa surfaces that have not been thoroughly examined. However, DMEC has observed that the soils of Cronese Lake Playa surface typically have a thin cracked silty clay crust with unconsolidated sand to silty sand underneath, occasionally mixed with unconsolidated biotite, and/or exhibiting clay below 12 inches depth. In addition to surface crust cracks, East Cronese Lake exhibits extensive networks of deeper, gas-release created cracks, fissures, and holes. Playa surfaces, such as East Cronese Lake, are typically moderately to extremely more saline than the surrounding soils.

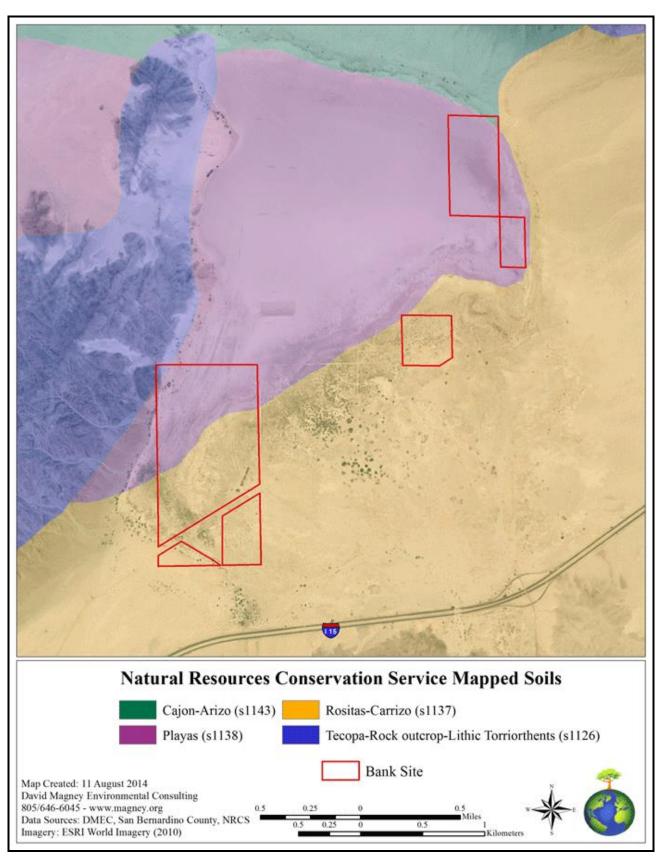


Left: Soil cracks visible at plot B-4. Right: Soil cracks visible at plot DMEC1.

Tecopa-Rock Outcrop-Lithic Torriorthents Association

The **Tecopa-Rock Outcrop-Lithic Torriorthents Association** is classified according to the Official Soil Series Descriptions (NRCS 2014b). Tecopa-Rock Outcrop-Lithic Torriorthents Association is a series of shallow, largely undeveloped soils confined to hillsides over and between solid rock outcrops. Tecopa series very gravelly sandy loam formed from weathered quartzite, schist and gneiss. Tecopa series is well drained, facilitating medium to rapid runoff and moderate permeability.









Transect	Plot #	Soil Series
	1	Playas
	2	Rositas-Carrizo
Α	3	Rositas-Carrizo
	4	Playas
	1	Playas
	2	Playas
В	3	Playas
	4	Playas
	1	Rositas-Carrizo
С	2	Playas
C	3	Playas
	1	
		Тесора
D	2	Playas
	3	Playas
	4	Playas
	1	Rositas-Carrizo
Ε	2	Playas
	3	Playas
	1	Playas
F	2	Rositas-Carrizo
	1	Rositas-Carrizo
	2	Playas
G	3	Playas
	4	Rositas-Carrizo
	1	Rositas-Carrizo
н	2	Playas
11	3	Playas
	1	Rositas-Carrizo
	2	Rositas-Carrizo
	3	Rositas-Carrizo
	4	Rositas-Carrizo
Ι	5	
		Rositas-Carrizo
	6	Rositas-Carrizo
	7	Rositas-Carrizo
	8	Rositas-Carrizo
_	1	Rositas-Carrizo
J	2	Rositas-Carrizo
	3	Rositas-Carrizo
	1	Playas
К	2	Playas
••	3	Rositas-Carrizo
	4	Rositas-Carrizo
	DMEC1	Playas
	DMEC2	Playas
	DMEC3	Playas
Single Semula	DMEC4	Playas
Single Sample Locations		
Locations	DMEC5	Playas
	AMEC1	Playas
	AMEC2	Playas
	AMEC3	Playas

Table 9. Soils/Plot Series at the Bank Site



SECTION V. WETLAND HABITATS DETERMINATION

This section provides a discussion of the findings of the wetland delineation and presents DMEC's Corps-defined determinations of wetland habitats currently present at the Bank Site. The results are based upon and supported by findings at 47 surveyed data points for each of the three wetland criteria.

RESULTS

All data were collected in the field by determining the presence (or absence) for all three wetland parameters. These data were analyzed in-office, aided by aerial photographic interpretation, and the final result for each criterion were determined. Finally, the wetlands were mapped onsite to compare with wetlands mapped by the USFWS (NWI) to determine any differences in acreage.

Table 10, Wetland Delineation Determinations for Surveyed Data Points, is a summary table of all determinations made for the 47 sampling plots surveyed at the bank site according to the *Corps Manual* and *Arid West Supplement*. Table 10 provides the transect letter, plot number, field determinations for all three wetland criteria (vegetation, hydrology, and soils), and a wetland determination for each plot surveyed.

Figure 8 illustrates the locations of each sample point site and transect in relation to the Bank Site. Figures 9 through 15 illustrate the individual transects sampled by DMEC.

Transect	Plot #	Hydrophytic Vegetation Present?	Wetland Hydrology Present?	Hydric Soils Present?	Waters of the U.S.	Corps Wetland	Waters of the State
	1	Yes ¹⁵	Yes	Yes ¹⁶	Yes	Yes	Yes
•	2	No	No	No	No	No	No
Α	3	No	No	No	No	No	No
	4	Yes	Yes	Yes	Yes	Yes	Yes
	1	Yes	Yes	Yes	Yes	Yes	Yes
В	2	Yes ¹⁷	Yes	Yes	Yes	Yes	Yes
Б	3	Yes	Yes	Yes	Yes	Yes	Yes
	4	Yes	Yes	Yes	Yes	Yes	Yes
	1	No	No	No	No	No	No
С	2	No	Yes	No	Yes	No	Yes
	3	Yes	Yes	Yes	Yes	Yes	Yes
	1	No	No	No	No	No	No
D	2	No	Yes	Yes	Yes	No	Yes
	3	No	Yes	Yes	Yes	No	Yes

Table 10. Wetland Delineation Determinations for Surveyed Data Points

¹⁵ See Table 5

¹⁶ High alkalinity/saline conditions likely have prevented or masked development of observable hydric soil indicators (Brostoff et al. 2001). See Table 6 for specific pH and conductivity values at these plots.

¹⁷ See Table 5



Transect	Plot #	Hydrophytic Vegetation Present?	Wetland Hydrology Present?	Hydric Soils Present?	Waters of the U.S.	Corps Wetland	Waters of the State
	4	Yes	Yes	Yes	Yes	Yes	Yes
	1	Yes	No	No	No	No	No
\mathbf{E}	2	Yes ¹⁸	Yes	Yes ¹⁹	Yes	Yes	Yes
	3	Yes ²⁰	Yes	Yes ²¹	Yes	Yes	Yes
F	1	No	Yes	No	Yes	No	Yes
Г	2	No	No	No	No	No	No
	1	No	No	No	No	No	No
G	2	No	Yes	No	Yes	No	Yes
G	3	No	Yes	No	Yes	No	Yes
	4	No	No	No	No	No	No
	1	No	No	No	No	No	No
Н	2	Yes ²²	Yes	Yes ²³	Yes	Yes	Yes
	3	Yes	Yes	Yes ²⁴	Yes	Yes	Yes
	1	No	No	No	No	No	No
	2	Yes	Yes	Yes	Yes	Yes	Yes
	3	Yes	No	No	No	No	Yes
Ι	4	Yes	Yes	Yes	Yes	Yes	Yes
1	5	Yes	Yes	Yes	Yes	Yes	Yes
	6	Yes	No	No	No	No	Yes
	7	Yes ²⁵	Yes ²⁶	Yes	Yes	Yes	Yes
	8	No	Yes	Yes	Yes	No	Yes
	1	Yes ²⁷	Yes	Yes ²⁸	Yes	Yes	Yes
J	2	Yes	Yes	Yes ²⁹	Yes	Yes	Yes
	3	No	Yes	Yes ³⁰	Yes	No	Yes
	1	Yes	Yes	Yes	Yes	Yes	Yes
17	2	Yes	Yes	Yes	Yes	Yes	Yes
K	3	Yes	Yes	Yes	Yes	Yes	Yes
	4	Yes	No	Yes	No	No	No
	DMEC1	Yes	Yes	Yes ³¹	Yes	Yes	Yes

²⁸ See Table 6

- ³⁰ Ibid.
- ³¹ Ibid.

 ¹⁸ See Table 5
 ¹⁹ High alkalinity/saline conditions likely have prevented or masked development of observable hydric soil indicators
 ¹⁹ High alkalinity/saline conditions likely have prevented or masked development of observable hydric soil indicators (Brostoff et al. 2001), reflecting the discrepancy between the field data sheet and DMEC's determination. See Table 6 for specific pH and conductivity values at these plots.

²⁰ See Table 5

²¹ See Table 6

²² See Table 5

²³ See Table 5 ²⁴ See Table 6 ²⁵ See Table 5

²⁶ DMEC analysis after completion of the field surveys concluded that wetland hydrology was present.

²⁷ See Table 5

²⁹ Ibid.



Transect	Plot #	Hydrophytic Vegetation Present?	Wetland Hydrology Present?	Hydric Soils Present?	Waters of the U.S.	Corps Wetland	Waters of the State
Single	DMEC2	Yes	Yes	Yes ³²	Yes	Yes	Yes
Sample	DMEC3	No	Yes	No	Yes	No	Yes
Locations	DMEC4	No	Yes	No	Yes	No	Yes
	DMEC5	No	Yes	Yes	Yes	No	Yes
	AMEC1	Yes	Yes	Yes	Yes	Yes	Yes
	AMEC2	Yes	Yes	Yes	Yes	Yes	Yes
	AMEC3	Yes	Yes	Yes	Yes	Yes	Yes
	AMEC4	No	Yes	No	Yes	Yes	Yes
	AMEC5	No	Yes	No	Yes	Yes	Yes
	AMEC6	No	Yes	No	Yes	Yes	Yes

The following is a summary of DMEC's analysis of the wetland riparian habitats at the Bank Site. DMEC has determined through the onsite delineation that there are approximately 368.6 acres of Corps Jurisdictional Wetlands, plus approximately 51.1 acres of Waters of the U.S., together totaling in 419.7 acres of jurisdictional waters and wetlands at the Bank Site. The wetland habitats and waters of the U.S. are illustrated on Figure 19 above and Figure 22 below, and are summarized in Table 11, Acreage of Wetlands and Waters of the U.S. Onsite.

 Table 11. Acreage of Wetlands and Waters of the U.S. Onsite

Wetland Classification	Acres
Waters of the U.S. Only	51.1
Jurisdictional Wetlands	368.8
Grand Total Jurisdictional Area	419.7

All Corps Jurisdictional **Wetlands** are also considered Waters of the State for a total of 368.8 acres. Additional washes that are not directly connected to the Mojave River or East Cronese Lake but have clearly defined beds and banks in the Cronese Basin are Waters of the State but not Corps jurisdictional. These occur primarily on the eastern and southeastern side of the basin, as illustrated Figure 22, Wetland Habitats in the Vicinity of East Cronese Lake. None of these occur within the Bank Site parcels.

The proposed bank includes both restoration (rehabilitation) credits and preservation credits. Restoration credits are proposed for areas with high cover of invasive plants, primarily Saltcedar (*Tamarix ramosissima*). Preservation credits are proposed for areas with low cover of invasive plants; these areas will be protected from disturbances and preserved as intact wetlands. Table 12, Area of Wetland Habitats and Types of Proposed Mitigation of the Bank Site, shows the total number of acres for each proposed mitigation type, listed by Cowardin System wetland habitat type. More details on the areas targeted for restoration and preservation are in the Habitat Mitigation and Monitoring Plan for Mojave River Mitigation Bank at East Cronese Lake and the Mojave River Watershed Mitigaton Bank Prospectus (DMEC 2015c and DMEC 2015d).

³² Ibid.

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc

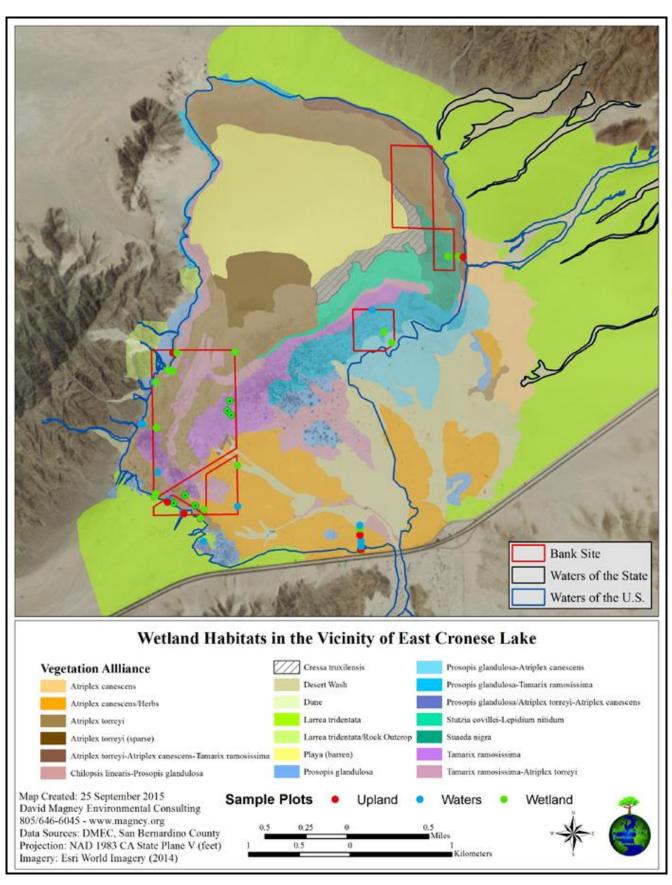


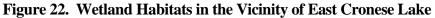
Table 12. Area of Wetland Habitats and Types of Proposed Mitigation of the Bank Site

Cowardin System Wetland Type	Restoration (Rehabilitation) Area	Preservation Area	Total
Riverine (Streambed)	11.36	8.2	19.56
Palustrine (Scrub-shrub wetland)	172.21	140.02	312.23
Palustrine (Emergent wetland)	23.58	43.61	67.19
Lacustrine (Unconsolidated Bottom)	0	19.42	19.42
Total	206.72	211.73	418.4 ³³

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc

³³ The total area of wetland habitats varies slightly from the amount that is considered jurisdictional waters/wetlands since not all habitats that are classified as wetlands according to the Cowardin et al. (1979) system are jurisdictional in some circumstances.





LAAFO

Y:\DMEC\Jobs\Lyons\Mojave\Wetland Delineation\Wetland Delineation - FINAL\Lyons-WetlandDelineationReport-ECroneseLake-DMEC-20151113.doc



SECTION VI. ACKNOWLEDGEMENTS

This wetland delineation report was written by David Magney and Evan Lashly, with assistance from Joe Broberg. Mr. Magney and Mr. Lashly conducted the wetland delineation onsite, with assistance from Jared Logan in determining hydrological connections of desert washes into East Cronese Lake. Scot Campbell of AMEC separately delineated wetlands on small portions of the Lyons property on behalf of Caltrans. Mr. Broberg assisted with soil sampling and supplemental sections of the report.

All photographs were taken by Mr. Magney. Mr. Magney, Mr. Lashly, and Victoria Peters prepared the GIS database and the graphics for this report and calculated the area of jurisdiction. Mr. Magney reviewed and edited this report. Mr. Broberg created and edited supplemental tables. Ms. Peters proofread and edited the final draft of the report.

Veronica Li, Corps project manager, provided guidance on the parameters of the delineation and verified this delineation after minor adjustments. Jan Zimmerman, Lahontan Regional Water Quality Control Board, and Sarvy Mahdavi, E.P.A., provided valuable comments on the previous version of this report.



SECTION VII. REFERENCES CITED

- Boettinger, 1997. Aquisalids (Salorthids) and Other Wet Saline and Alkaline Soils: Problems Identifying Aquic Conditions and Hydric Soils. The Soil Science Society of America, Inc. Madison Wisconsin.
- Bowman, Roy H. 1973. Soil Survey, San Diego Area. United States Department of Agriculture, Soil Conservation Service.
- Brostoff, W., R. Lichvar, and S. Sprecher. 2001. Delineating Playas in the Arid Southwest: A Literature Review. April. (Technical Report ERDC TR-01-4.) U.S. Army Corps of Engineers, Engineer Research and Development Center, Hanover, New Hampshire.
- Consortium of California Herbaria (CCH). 2014. Data provided by the participants of the Consortium of California Herbaria. Available online: http://ucjeps.berkeley.edu/consortium/. Accessed 30 March 2014.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. (FWS/OBS-79/31.) U.S. Fish and Wildlife Service, Washington, DC.
- David Magney Environmental Consulting (DMEC). 2015a. Biological Resources of the Mojave River Mitigation Bank Site. 30 September 2015. (PN 12-0004.) Ojai, California. Prepared for the U.S. Army Corps of Engineers, Los Angeles, California, on behalf of Richard Lyons and Laurie Prange Lyons, Santa Paula, California.
- David Magney Environmental Consulting. 2015b. Draft Regional Guidebook for Functional Assessment of Playa Depressional Wetlands in the Mojave Desert. 13 November 2015. (PN 12-0004) Ojai, California. Prepared for U.S. Army Corps of Engineers, Los Angeles, California. Prepared on behalf of Richard and Laurie Lyons., Santa Paula, California.
- David Magney Environmental Consulting. 2015c. Habitat Mitigation and Monitoring Plan for Mojave River Watershed Mitigation Bank at East Cronese Lake (Corps File No. 08-000000-6211). 30 September 2015. (PN 12-0004.) Ojai, California. Prepared for U.S. Army Corps of Engineers, Los Angeles, California, and California Department of Fish and Wildlife, San Bernardino, California. Prepared on behalf of Richard and Laurie Lyons, Ojai, California.
- David Magney Environmental Consulting. 2015d. Mojave River Watershed Mitigation Bank: Prospectus. 13 April 2015, revised 13 November 2015. (PN 12-0004.) Ojai, California. Prepared for U.S. Army Corps of Engineers, Los Angeles, California, and California Department of Fish and Wildlife, San Diego, California. Prepared on behalf of Richard Lyons & Laurie Prange Lyons, Ojai, California.
- Dobrowolski, J.P., M.M. Caldwell, and J.H. Richards. 1990. Basin Hydrology and Plant Root Systems. In *Plant Biology of the Basin and Range* (C.B. Osmond, L.F. Pitelka, and G.M. Hidy, Ed.). Berlin: Springer-Verlag, p. 243–297.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. (Technical Report Y-87-1.) U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.



- Gaskin, J. F. 2012. Tamarix, in Jepson Flora Project (eds. B. Baldwin, D. Keil, S. Markos, B. Mishler, R. Patterson, T. Rosatti, D. Wilken) Jepson eFlora, <u>http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=71461</u>. Accessed on 28 March 2014.
- Jepson Flora Project (eds. Baldwin, Bruce, D. Keil, S. Markos, B. Mishler, R. Patterson, T. Rosatti, D. Wilken). 2014. Jepson eFlora. http://ucjeps.berkeley.edu/IJM.html, accessed on 28 March 2014.
- Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D.P. Guertin, M. Tluczek and W. Kepner. 2008. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semiarid American Southwest. (EPA/600/R-08/134; ARS/233046.) U.S. Environmental Protection Agency, San Francisco, CA, and SDA/ARS Southwest Watershed Research Center, Tuscon, AZ.
- Lichvar, R.W., G. Gustina, and R. Bolus. 2002. Duration and Frequency of Ponded Water on Arid Southwestern Playas. WRAP Technical Notes Collection (ERDC TN-WRAP-02-02.) May 2002. U.S. Army Corps of Engineers, Engineer Research and Development Center, Wetlands Regulatory Assistance Program, Vicksburg, Mississippi.
- Lichvar, R.W., and J.S. Wakeley. 2004. Review of Ordinary High Water Mark Indicators for Delineating Arid Streams in the Southwestern United States. (ERCD TR-04-1.) U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire.
- Lichvar, R., W. Brostoff, and S. Sprecher. 2006. Surficial Features Associated with Ponded Water on Playas of the Arid Southwestern United States: Indicators for Delineating Regulated Areas Under the Clean Water Act. *Wetlands* 26(2):385-399.
- Lichvar, R., and L. Dixon. 2007. Wetland Plants of Specialized Habitats. (ERDC/CRREL TR-07-8.) U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire.
- Lichvar, R.W., W.R. Ochs, S.M. Gaines. 2008. Evaluation of Surface Features for Delineating the Ordinary High Water Boundary on Playas in the Arid Western United States. *Wetlands* 28(1):68-80.
- Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. The National Wetland Plant List: 2014 Update of Wetland Ratings. *Phytoneuron* 2014-41:1-42.
- Lollock, D. 1987. The Status of Wetland Habitat and its Protection, Enhancement, and Expansion. Presented before the Fish and Game Commission on March 9, 1987 by Glenn Rollins. California Department of Fish and Game, Sacramento, California.
- Natural Resource Conservation Service (NRCS). 2007. 2007 National Hydric Soils List by State. United States Department of Agriculture Natural Resource Conservation Service. Available at: <u>http://soils.usda.gov/use/hydric/</u>.
- 2013. California Soil Survey Status. United States Department of Agriculture Natural Resource Conservation Service. Available at: <u>http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_063838.pdf</u>. Accessed: 30 March 2014.
- 2014. Web Soil Survey. Soil Survey Staff, United States Department of Agriculture Natural Resource Conservation Service. Available at: <u>http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>. Accessed: 30 March 2014.



2014a. National List of Hydric Soils 2014. Soil Survey Staff, United States Department of Agriculture Natural Resource Conservation Service. Available at: <u>http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/</u>. Accessed: 30 March 2014.

____2014b. Official Soil Series Descriptions. 2014. United States Department of Agriculture Natural Resource Conservation Service. Available at: <u>https://soilseries.sc.egov.usda.gov/osdname.asp</u>. Accessed: 30 March 2014.

- Reed, Jr., P.B. 1988. National List of Plant Species that Occur in Wetlands: Southwest (Region 7). (Biological Report 88(26.7).) U.S. Fish and Wildlife Service, Washington D.C.
- Reed, Jr., P.B. (ed). 1997. Revision of the National List of Plant Species that Occur in Wetlands. In cooperation with the National and Regional Interagency Review Panels: U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and Natural Resource Conservation Service, Washington, DC.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society, Sacramento, California.
- Soil Conservation Service (SCS). 1987. Hydric Soils of the United States. United States Department of Agriculture, Soil Conservation Service. In cooperation with the National Technical Committee for Hydric Soils.
- Uchytil, Ronald J. 1990. *Chilopsis linearis*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available at: <u>http://www.fs.fed.us/database/feis/</u>. Accessed: 23 July 2014.
- U.S. Army Corps of Engineers (Corps). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September 2008. Environmental Laboratory, U.S. Army Engineer Research and Development Center, Wetlands Regulatory Assistance Program, Vicksburg, Mississippi.
- U.S. Fish and Wildlife Service (USFWS). 2014. National Wetlands Inventory. Available at: <u>http://www.fws.gov/wetlands</u>. Accessed 5 August 2014.
- U.S. Geological Survey (USGS). 2014. LandsatLook Viewer, USGS Landsat Satellite Imagery. Available at: <u>http://landsatlook.usgs.gov/</u>. Accessed 30 March 2014
- Zacharias, Elizabeth H. 2013a. *Atriplex*, Revision 1, in Jepson Flora Project (eds. B. Baldwin, D. Keil, S. Markos, B. Mishler, R. Patterson, T. Rosatti, and D. Wilken). *Jepson eFlora*, <u>http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=71461</u>, accessed: 28 March 2014.
- Zacharias, Elizabeth H. 2013b. *Stutzia*, Revision 1, in Jepson Flora Project (eds. B. Baldwin, D. Keil, S. Markos, B. Mishler, R. Patterson, T. Rosatti, and D. Wilken). *Jepson eFlora*, <u>http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=95111</u>, accessed: 12 February 2015.

PERSONAL COMMUNICATIONS

Chavez, Anthony, Resource Specialist, Bureau of Land Management, Barstow, California. Telephone conversation on 29 April 2014 with Richard Lyons, regarding conditions of East Cronese Lake and the LYONS, Inc., properties.





APPENDIX A. COMPLETED WETLAND DETERMINATION FIELD DATA FORMS (ARID WEST REGION)



Project/Site: E. (RONESE LAKE City/County: SAN BEENARDING Samplin	AL
	-
Applicant/Owner: State: Samplin	ng Point: <u>52</u> P
Investigator(s): MAGHEY LASHLY Section, Township, Range: 525 T12~	RLOE
Landform (hillslope, terrace, etc.): ED42 5 LAKEBED Local relief (concave, convex, none): SLIGHT INCLIN	E Slope (%):
Subregion (LRR): INTERIOR DEGERT (D) Lat: 35.11822 Long: -116.29461	Datum: NAD&3
Soil Map Unit Name: MOJAVE DESERT AGEA (LAGAS) NWI classification: N	ONE (22 FT FROM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)	12UBF BOLNDARY)
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 Ren	narks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, impo	rtant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No No Yes No No Yes No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: 3 YEAR DROUGHT	IN The LAKE BO	ס	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1.		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species (A/B)
1. ATRIPLEX POLICE CANESIENS	_25_	M (FAC)	Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
Herb Stratum (Plot size:)	- 47	= Total Cover	FACU species x 4 =
1. ANSINUKIN TESSELLATA	7	NL	UPL species x 5 =
2. Petromera	2		Column Totals: (A) (B)
3. BRATTLA TOURIFORTA			Prevalence index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	\rightarrow	= Total Cover	
1 2			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum 70 % Con	ver of Biotic C	rust	Present? Yes <u>No</u>
Remarks:			



r

	A	to the dep				or contin	m the absence of in	idicators.)
Depth <u>Matrix</u> (inches) Color (moist) %			Features %	s Type ¹	Texture	Remarks		
	1042 313	1.00	Color (molst)		.100			UNCONSOLIDATED
0- (6				_	_			
Hydric Soil Histosol Histic Ep Black Hi Hydroge Stratified	oncentration, D=Depi Indicators: (Application) (A1) bipedon (A2) stic (A3) in Sulfide (A4) d Layers (A5) (LRR D)	able to all	Reduced Matrix, CS LRRs, unless other Sandy Redo Stripped Ma Loamy Muck Loamy Gley Depleted Ma Depleted Ma	wise not x (S5) trix (S6) xy Minera ed Matrix atrix (F3)	ed.) I (F1) (F2)		Indicators for I 1 cm Muck 2 cm Muck Reduced V Red Parent	n: PL=Pore Lining, M=Matrix Problematic Hydric Soils ³ : (A9) (LRR C) (A10) (LRR B) ertic (F18) t Material (TF2) lain in Remarks)
Depleter Thick Da Sandy M	d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4)	e (A11)	Depleted Da Redox Depr Redox Depr Vernal Pools	ark Surfac essions (i	e (F7)		wetland hydr	vdrophytic vegetation and ology must be present, bed or problematic.
Restrictive	Layer (if present):							
								×
Type:							Hydric Soil Pres	sent? Yes 🔼 No _

HYDROLOGY

Wetland Hydrology Indica							
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11)					Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)		
Xurface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)			Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)		Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)		
Field Observations:	220	15-45	1015 1010 101 102				
Surface Water Present?	Yes	No	Depth (inches):				
Water Table Present?	Yes	No	Depth (inches):	and the second second second second	\sim		
Saturation Present? Yes No (includes capillary fringe)			Depth (inches):		drology Present? Yes X No		
Describe Recorded Data (s	tream gauge	e, monitori	ng well, aerial photos, previous inspe	ctions), if availa	able:		
Remarks:	-			00-110-00			



.

WETLAND DETER	RMINATION DATA FORM – Arid West Region A2
Project/Site: E. (ROMESE LKE	City/County: SAN BEENAETING COUNTY Sampling Date: 1/31/14
Applicant/Owner:	State: CA Sampling Point: 53-94
Investigator(s): MAGNEY LASHLY	Section, Township, Range: 525 TIZN ROE
	Local relief (concave, convex, none): HILL Slope (%): 5
Subregion (LRR): WTERE DESERT (D)	Lat: 35°07.042' Long: 116° 17.687' Datum: 16884
Soil Map Unit Name: MOTAVE DESERT AREA (CAGA	95) NWI classification: №0NE
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig	ignificantly disturbed? Are "Normal Circumstances" present? Yes X_ No
Are Vegetation N, Soil M, or Hydrology M na	aturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Is the Sampled Area

Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No	within a Wetland? Yes No X
Remarks: 3 YEAR DENULIT LLEAR VEL SO	A REAL PROPERTY AND A REAL	LAKEBED - ON SHORELINE ~]

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 3 4.				Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: 3~)	Constant and	= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. MTRIPLEX POWLARPA	15		FALL	Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4.				FACW species x 2 =
5.		880 mennya 18		FAC species x 3 =
		= Total Co	ver	FACU species x 4 =
Herb Stratum (Plot size: 3~)				UPL species x 5 =
1. PELTOLARIA	5			Column Totals: (A) (B)
2. CAMISTONIA BISTORYA				
3				Prevalence Index = B/A =
4.				Hydrophytic Vegetation Indicators:
5.				Dominance Test is >50%
6.				Prevalence Index is ≤3.0 ¹
7				 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		= Total Co	ver	
				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2		= Total Co		Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Co	ver of Biotic C	rustC	2	Present? Yee (No X)
Remarks:			,	

LIC Army Come of Engineere



	ription: (Describe	to the dep			-		ne absence		013.)	
Depth	Color (moist)	%		x Features	Type'	Loc2	Texture		Remark	
nches)	Color (moist)		Color (moist)		туре	LOC	0		Remark	5
0-116							Fine say			
14-18	104254	100	104R 3/2	2			Loamy s	*NO		
						t	Ang 540	0		
					_					
			=Reduced Matrix, C			d Sand Grain			Pore Lining,	
dric Soil I	Indicators: (Applic	able to all	LRRs, unless othe	rwise note	d.)		Indicator	s for Proble	matic Hydri	c Soils ³ :
_ Histosol	Contraction and the second second		Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)	
	pipedon (A2)		Stripped Ma					Muck (A10)	C	
_ Black His			Loamy Muc					ced Vertic (
	n Sulfide (A4)		Loamy Gley		F2)			Parent Mate		
	d Layers (A5) (LRR (ick (A9) (LRR D)	;)	Depleted M Redox Dark		6)		Other	(Explain in	Remarks)	
Depleted	Below Dark Surfac	e (A11)	Depleted D	ark Surface	(F7)					
_ Thick Da	ark Surface (A12)		Redox Dep	ressions (Fi	8)		³ Indicators	s of hydroph	ytic vegetatio	on and
_ Sandy M	lucky Mineral (S1)		Vernal Pool	s (F9)			wetland	hydrology	must be pres	ent,
Sandy G	Bleyed Matrix (S4)						unless	disturbed or	problematic.	
_ oundy o	nejea maant (e i)									
	Layer (if present):									
estrictive L										294
Type: Depth (inc	Layer (if present):							I Present?	Yes	<u>No X</u>
Depth (included)	Layer (if present): ches):							I Present?	Yes	<u>No X</u>
YDROLO	Ches): GY drology Indicators:						Hydric Soi			
restrictive I Type: Depth (ind emarks: /DROLO	Ches): GY drology Indicators:		d; check all that appl	x)			Hydric Soi			No X
Pestrictive I Type: Depth (ind remarks: /DROLO /etland Hyd rimary Indic	Ches): GY drology Indicators:		d; check all that appl	(B11)			Hydric Soi	ndary Indic		ore required)
Pestrictive I Type: Depth (ind temarks: POROLOG Vetland Hyd rimary Indic Surface	Ches): Ches): GY drology Indicators: ators (minimum of o		d; check all that appl	(B11)			Hydric Soi	ndary Indic	ators (2 or me	ore required) ne)
VDROLO Vetland Hyd Surface	GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2)		d <u>, check all that appl</u> Salt Crust Biotic Crust	(B11)	(B13)		Hydric Sol	ndary Indic Water Marks Sediment D	ators (2 or me s (B1) (Riveri	ore required) ne) Riverine)
Type: Depth (ind temarks: TOROLOO Vetland Hyd Primary Indic Surface ' High Wa Saturatic	GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2)	ne require	d <u>; check all that appl</u> Salt Crust Biotic Crus Aquatic Inv	(B11) st (B12)			Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit	ators (2 or me s (B1) (Riveri eposits (B2) (ore required) ne) Riverine)
	GY GY GY Water (A1) ter Table (A2) on (A3)	ne require	d; check all that appl Salt Crust Biotic Crus Aquatic Im Hydrogen	(B11) st (B12) vertebrates Sulfide Odd	or (C1)	.iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa	ators (2 or me s (B1) (River eposits (B2) (s (B3) (River	ore required) ne) Riverine) ine)
	GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver	ne require ine) nriverine)	d: check all that appl Salt Crust Biotic Crust Aquatic Im Hydrogen Oxidized F	(B11) st (B12) vertebrates Sulfide Odd	or (C1) es along l	.iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table	ore required) ne) Riverine) ine)
	GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver it Deposits (B2) (Nor	ne require ine) nriverine)	d: check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) at (B12) vertebrates Sulfide Odd Rhizosphere	or (C1) es along l I Iron (C4	iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8)	ore required) ine) Riverine) ine) (C2)
VDROLO Vetland Hyd Saturatic Water M Sedimen Drift Dep Surface	GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver it Deposits (B2) (Nonriver posits (B3) (Nonriver)	ne require ine) nriverine) rine)	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro	(B11) at (B12) vertebrates Sulfide Odd Rhizosphere of Reduced	or (C1) es along l I Iron (C4 n in Tilled	iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen	ore required) ine) Riverine) ine) (C2)
Vestrictive I Type: Depth (ind temarks: VDROLO Vetland Hyd Trimary Indic Surface 1 Utility Water M Saturatio Utility Saturatio Utili	GY drology Indicators: cators (minimum of of Water (A1) ter Table (A2) on (A3) larks (B1) (Nonriver at Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6)	ne require ine) nriverine) rine)	d: check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction	or (C1) es along l I Iron (C4 n in Tilled 7)	iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen itard (D3)	ore required) ine) Riverine) ine) (C2)
Contractive I Type: Depth (ind Cemarks: CDROLO Cetland Hyd rimary Indic Surface 1 High Wa Saturatio Water M Sedimen Drift Dep Surface 3 Inundatic Water-St	GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) iarks (B1) (Nonriver at Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9)	ne require ine) nriverine) rine)	d: check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C	or (C1) es along l I Iron (C4 n in Tilled 7)	iving Roots	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen itard (D3)	ore required) ine) Riverine) ine) (C2)
VDROLO Vetland Hyd Saturatic Surface High Wa Saturatic Water M Sedimen Drift Dep Surface Water Sedimen Water-Si ield Obsen	GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations:	ne require ine) nriverine) rine) magery (B	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C blain in Rem	or (C1) es along l l Iron (C4 n in Tilled 7) narks)	.iving Roots) I Soils (C6)	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen itard (D3)	ore required) ine) Riverine) ine) (C2)
Arrow of the second secon	GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver it Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y	ne require ine) nriverine) rine) magery (B es	d: check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp No <u>×</u> Depth (in	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C plain in Rem	or (C1) es along l l Iron (C4 n in Tilled 7) narks)	iving Roots) I Soils (C6)	Hydric Soi	ndary Indic Water Marks Sediment D Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen itard (D3)	ore required) ine) Riverine) ine) (C2)
	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver it Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Present? Y	ne require ine) nriverine) rine) magery (B es es	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp	(B11) st (B12) wertebrates Sulfide Odo Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along l l Iron (C4 n in Tilled 7) narks)	Living Roots) Soils (C6)	Hydric Soi	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aen itard (D3)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)
Restrictive I Type: Depth (inc Remarks: PYDROLOG Vetland Hyc Primary Indic Surface I High Wa Saturatic Water M Sedimen Drift Dep Surface I Inundatic Water-Si Field Obsern Surface Water Table Saturation Princludes cap	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y Present? Y present present	ne require ine) nriverine) rine) magery (B es es es	d: check all that appl Salt Crust Biotic Crus Aquatic Im Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp No <u>×</u> Depth (in No <u>×</u> Depth (in	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along I I Iron (C4 n in Tilled 7) harks)		Hydric Sol <u>Seco</u> V S U (C3) U (C3) U S S F	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aer itard (D3) Test (D5)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)
Restrictive I Type: Depth (inc Remarks: PYDROLOG Vetland Hyc Primary Indic Surface I High Wa Saturatic Water M Sedimen Drift Dep Surface I Inundatic Water-Si Field Obsern Surface Water Table Saturation Princludes cap	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y Present? Y present present	ne require ine) nriverine) rine) magery (B es es es	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp No <u>×</u> Depth (inv No <u>×</u> Depth (inv	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along I I Iron (C4 n in Tilled 7) harks)		Hydric Sol <u>Seco</u> V S U (C3) U (C3) U S S F	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aer itard (D3) Test (D5)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)
Restrictive I Type: Depth (inc Remarks: YDROLOO Netland Hyo Primary Indic Surface 1 High Wa Saturatio Water M Sedimen Drift Dep Surface 1 Numdatic Water St Field Obsen Surface Water Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surfac	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y Present? Y present present	ne require ine) nriverine) rine) magery (B es es es	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp No <u>×</u> Depth (inv No <u>×</u> Depth (inv	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along I I Iron (C4 n in Tilled 7) harks)		Hydric Sol <u>Seco</u> V S U (C3) U S S F	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aer itard (D3) Test (D5)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)
Restrictive I Type: Depth (inc Remarks: PDROLO Vetland Hyd Primary Indic Surface 1 High Wa Saturatio Water M Surface 3 Unundatio Water St Surface 3 Unundatio Water St Surface 4 Water St Surface 4 Saturation Pr includes cap Describe Rec	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y Present? Y present present	ne require ine) nriverine) rine) magery (B es es es	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp No <u>×</u> Depth (inv No <u>×</u> Depth (inv	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along I I Iron (C4 n in Tilled 7) harks)		Hydric Sol <u>Seco</u> V S U (C3) U S S F	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aer itard (D3) Test (D5)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)
Vestrictive I Type: Depth (inclusion in the second sec	GY GY GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver arks (B1) (Nonriver to Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y Present? Y present present	ne require ine) nriverine) rine) magery (B es es es	d: check all that appl Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence Recent Iro 7) Thin Muck Other (Exp No <u>×</u> Depth (inv No <u>×</u> Depth (inv	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reduction Surface (C olain in Rem ches): ches):	or (C1) es along I I Iron (C4 n in Tilled 7) harks)		Hydric Sol <u>Seco</u> V S U (C3) U S S F	ndary Indica Water Marks Sediment Dr Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu Shallow Aqu	ators (2 or mo s (B1) (Riveri eposits (B2) (s (B3) (River tterns (B10) Water Table rows (C8) isible on Aer itard (D3) Test (D5)	ore required) ne) Riverine) ine) (C2) al Imagery (C9)



Project/Site: E. (LONES LAKE	IATION DATA FORM - Arid West Region 13
Applicant/Owner: Lyows	State: <u>CA</u> Sampling Point: <u>SY</u> A
Investigator(s): MAUNEM LASHLY	Section, Township, Range: S24 T12N R6E
Landform (hillslope, terrace, etc.): AEOLIAN SANCH HUSI	DE Local relief (concave, convex, none): <u>/ovve</u> Slope (%): <u>3</u>
Subregion (LRR): INTERIOR DESERT (D) Lat.	: 35.11816 Long: 116.29485 Datum: NAD&3
Soil Map Unit Name: MOSAVE DESER AREA (CALLAS	NWI classification: NONE - (208F
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No (If no, explain in Remarks.) AD JACENT
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation N_, Soil N_, or Hydrology A natural	ly 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? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes No X	Is the Sampled Area within a Wetland? Yes <u>No</u>
Remarks: 3 YR DROUGHT CHANGE IN	IN DRY LAKE R VEL SOILS	BED - ON SHORELINE W/ CLEAR

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. LAREEA TRIDENTATA	306	<u> <u> </u></u>	Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3.			OBL species x 1 =
4.			FACW species x 2 =
5.			FAC species x 3 =
	30%	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	Sector Charles		UPL species x 5 =
1. ATE PLOT PEUTOCAEVE St.	5%		Column Totals: (A) (B)
2. CAMISQUAVA 5P.			Prevalence Index = B/A =
4 5 6 7 8.			Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size:) 1		_= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2% Bare Ground in Herb Stratum% Cov		_= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:			

LIS Army Coms of Engineers

- - - <u>-</u>



DIL	the depth needed to document the indicator or	confirm the absence of	Sampling Point: <u>54</u> <u>A</u> ndicators.)
	Redox Features		
epth <u>Matrix</u> nches) Color (moist)	% Color (moist) % Type'	Loc ² Texture	Remarks
		SAND	/
0-18			
Type: C=Concentration, D=Deplet	ion, RM=Reduced Matrix, CS=Covered or Coated	Sand Grains. ² Locati	on: PL=Pore Lining, M=Matrix.
vdric Soil Indicators: (Applicab	le to all LRRs, unless otherwise noted.)	Indicators for	Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muc	k (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muc	k (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)		Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		nt Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Ex	plain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
 Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	³ Indicators of	hydrophytic vegetation and
Thick Dark Surface (A12)	Redox Depressions (F8)		irology must be present,
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		urbed or problematic.
Sandy Gleyed Matrix (S4)			
Restrictive Layer (if present):			
Туре:		Hydric Soil Pr	nsent? Yes No
		Hydric Soil Pr	esent? Yes <u>No </u>
Type: Depth (inches):		Hydric Soil Pr	esent? Yes <u>No </u>
Type: Depth (inches):		Hydric Soil Pr	esent? Yes <u>No</u> X
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators:			
Type: Depth (inches): Remarks: YDROLOGY		Seconds	ary Indicators (2 or more required)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators:	Salt Crust (B11)	Seconda	ary Indicators (2 or more required) er Marks (B1) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one	Salt Crust (B11) Biotic Crust (B12)	Seconda Wat Sed	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	<u>Second:</u> Wat Sed Drif	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Seconda Wat Sed Drif Dra	ery Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L	Seconda Wat Sed Drif Dra Dra Dry	ary Indicators (2 or more required) ter Marks (B1) (Riverine) timent Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L ne) Presence of Reduced Iron (C4)	Seconda Wat Sed Drif Dra Dra Dra Dra Dra Cra	ary Indicators (2 or more required) ter Marks (B1) (Riverine) timent Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonri	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L ne) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Seconda Wat Sed Drif Dri Dra iving Roots (C3) Dry Cra Soils (C6) Sat	ary Indicators (2 or more required) ter Marks (B1) (Riverine) timent Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonriverin Drift Deposits (B3) (Nonriverin	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled hagery (B7) Thin Muck Surface (C7)	Seconda Wat Sed Drif Drif Dra Cra Soils (C6) Sat Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) timent Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonriverin Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L ne) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Seconda Wat Sed Drif Drif Dra Cra Soils (C6) Sat Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) timent Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L ne) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled nagery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Seconda Wat Sed Drif Drif Dra Cra Soils (C6) Sat Sha	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Verine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Agery (B7) Thin Muck Surface (C7) Other (Explain in Remarks) S No Depth (inches):	Seconda Wat Sed Drif Drif Dra Cra Soils (C6) Sat Sha	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Verine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Agery (B7) Thin Muck Surface (C7) Other (Explain in Remarks) S No Depth (inches):	Seconda 	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonriverin Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye Water Table Present? Ye	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled agery (B7) Thin Muck Surface (C7) Other (Explain in Remarks) S No Depth (inches):	Seconda 	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Recent Iron Reduction in Tilled Other (Explain in Remarks) S No Depth (inches): S No Depth (inches):	Soils (C6) Sat	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled agery (B7) Thin Muck Surface (C7) Other (Explain in Remarks) S No Depth (inches):	Soils (C6) Sat	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Recent Iron Reduction in Tilled Other (Explain in Remarks) S No Depth (inches): S No Depth (inches):	Soils (C6) Sat	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye Water Table Present? Ye Saturation Present? Ye Saturation Present? Ye Saturation Present? Ye (includes capillary fringe) Describe Recorded Data (stream of	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) riverine) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Recent Iron Reduction in Tilled Other (Explain in Remarks) S No Depth (inches): S No Depth (inches):	Soils (C6) Sat	ary Indicators (2 or more required) er Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C illow Aquitard (D3) C-Neutral Test (D5)

US Army Corps of Engineers

Arid West - Version 2.0



1200

WETLAND DETERMINATION DATA FORM – Arid West Region A4
Project/Site: Conese Lake Mitigatin Bank City/County: San Bernardino, CA Sampling Date: 10/28/14 Applicant/Owner: T40. Inc. State: CA Sampling Point: WP020 A4
Applicant/Owner: T40, Inc. State: CA Sampling Point: WP020 A4 Investigator(s): Dav; J Magney Veroniza (Chan) Lee Section, Township, Range:
andform (hillslope, terrace, etc.):
Subregion (LRR): Lat: 3S, 11019 Long: -116, 29443 Datum: NAD 93
Soil Map Unit Name:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 🗶 No
Are Vegetation X, Soil K, or Hydrology K 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? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	Yes_/ No
Remarks:		· · · · · · · · · · · · · · · · · · ·	Advant aver

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)	22	Dominant Species?	Status	Dominance Test worksheet Number of Dominant Specie That Are OBL, FACW, or FA	-	(A)
2 3		<u></u>		Total Number of Dominant Species Across All Strata:	_2	(B)
4	-	= Total Co		Percent of Dominant Specie That Are OBL, FACW, or FA) (A/B)
1. Tamarix amosissima	15	Yes	FAL	Prevalence Index workshe	et:	
2. Artriptos torrezi	15	Yes	FAL	Total % Cover of:	Multiply I	oy:
3 0				OBL species	x1=	<u></u>
4				FACW species	x 2 =	
5.			10.00	FAC species 2	_ x3=(0
	30	= Total Co	ver	FACU species	_ x4=	1.12
Herb Stratum (Plot size: 30 m)	S	-	(-)	UPL species		1.1
1. Schismus barbatus	_ 20	NO	(fitz)	Column Totals:	_ (A)(e(B)
2					. c.h	
3				Prevalence Index = B		
4				Hydrophytic Vegetation In		
5				Dominance Test is >50		
6				✓ Prevalence Index is ≤3.		Value
7				Morphological Adaptation data in Remarks or of	ons' (Provide si	upporting
8				Problematic Hydrophyti		
22 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20	= Total Co	ver	- Provenauc Hydrophyd	c vegetation (t	-Apidini)
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and	watand budra	logu must
1				be present, unless disturbed		
2						214
	-	= Total Co	ver	Hydrophytic Vegetation	1	
% Bare Ground in Herb Stratum % Cov	er of Biotic C	rust		Present? Yes	V_ No	
Remarks:						
			1			



(inches)	Matrix			x Features				
1-6	Color (moist)	_%	Color (moist)	_%	Type ¹	Loc ²		Remarks
	5 YR 3/3		10 YR 3	_50	_ <u>p</u>	M	chayey ban	platy / slocky
> 64	5 YR 3/3		IVYR' ST3				<u>chayey loam</u>	Smaller preds
	<u></u>	_						
	oncentration, D=Depl Indicators: (Applica			the second second second second second		i Sand Gr		n: PL=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
_ Histosol	(A1)		Sandy Red	ox (S5)				(A9) (LRR C)
-	pipedon (A2)		Stripped Ma					(A10) (LRR B)
	istic (A3)		Loamy Muc		A		Reduced V	
	en Sulfide (A4) d Layers (A5) (LRR C	3	Loarny Gley		(-2)			t Material (TF2) lain in Remarks)
-	uck (A9) (LRR D)		Redox Dark		-6)		Chier (Expr	
	d Below Dark Surface	(A11)	Depleted D					
	ark Surface (A12)	2061033	Redox Dep	ressions (F				drophytic vegetation and
	lucky Mineral (S1)		Vernal Pool	s (F9)				ology must be present,
	Sleyed Matrix (S4)			NG	2.22		unless disturt	bed or problematic.
Contraction of the second	Layer (if present):							
Type:			and the second second					sent? Yes V No
Depth (in emarks:	cnes).						Hydric Soil Pres	sent? Yes V No
DROLO	GY drology Indicators:							
retianti ny	cators (minimum of or	e required:	check all that appl	0			Secondary	Indicators (2 or more required)
rimary India		ie reganoa,	Salt Crust					Marks (B1) (Riverine)
			Biotic Crus					ent Deposits (B2) (Riverine)
_ Surface						100 A. 100	C. C	
_ Surface _ High Wa	ater Table (A2)		The second s		(B13) 1.	tersture	Doff D	eposits (B3) (Riverine)
_ Surface _ High Wa _ Saturatio	ater Table (A2)	ne)	Aquatic In Hydrogen	vertebrates		terature		eposits (B3) (Riverine) ge Patterns (B10)
_ Surface _ High Wa _ Saturatio _ Water M	ater Table (A2) on (A3)		X Aquatic In	vertebrates Sulfide Ode	or (C1)		Draina	
Surface High Wa Saturatio Water M Sedimen	ater Table (A2) on (A3) larks (B1) (Nonriverin	riverine)	Aquatic Im Hydrogen Oxidized F	vertebrates Sulfide Ode	or (C1) as along L	iving Roo	Draina ots (C3) Dry-Se	ge Patterns (B10)
Surface High Wa Saturatio Water M Sedimer	ater Table (A2) on (A3) larks (B1) (Nonriverin ht Deposits (B2) (Non	riverine)	Aquatic Int Hydrogen Oxidized F Presence	vertebrates Sulfide Ode thizosphere	or (C1) as along L I Iron (C4)	iving Roo	Draina Draina Dry-Se Crayfit	nge Patterns (B10) eason Water Table (C2) sh Burrows (C8)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriveri	riverine) ine)	Aquatic Im Hydrogen Oxidized F Presence Recent Iro	vertebrates Sulfide Ode thizosphere of Reduced	or (C1) es along L I Iron (C4) n in Tilled	iving Roo	Draina ts (C3) Dry-Se Crayfit Satura Shallo	ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundati Water-S	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9)	riverine) ine)	Aquatic Im Hydrogen Oxidized F Presence Recent Iro Thin Muck	vertebrates Sulfide Odd thizosphere of Reduced n Reductio	or (C1) as along L I Iron (C4) n in Tilled (7)	iving Roo	Draina ts (C3) Dry-Se Crayfit Satura Shallo	ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) ttion Visible on Aerial Imagery (C9
Surface High Wa Saturatio Sedimer Drift Dep Surface Inundati Water-S	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations:	riverine) ine) nagery (B7)	X Aquatic Im Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (C Iain in Ren	or (C1) as along L I Iron (C4) n in Tilled (7)	iving Roo	Draina ts (C3) Dry-Se Crayfit Satura Shallo	ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3)
Surface High Wa Saturatie Water M Sedimer Drift Dep Surface Inundati Water-S Ield Obser	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non bosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye	riverine) ine) nagery (B7) es N	Aquatic Im Hydrogen Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (C lain in Ren	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina ts (C3) Dry-Se Crayfit Satura Shallo	ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundati Water-S ield Obsor urface Water Table	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non bosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye Present? Ye	riverine) ine) nagery (B7) s N s N	Aquatic Im Hydrogen Oxidized F Oxidized F Presence G Recent Iro Thin Muck Other (Exp X_ Depth (inc X_ Depth (inc	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (O Ilain in Ren shes): shes):	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina Dry-Se Dry-Se Crayfit Crayfit Satura Shallo FAC-N	age Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3) leutral Test (D5)
Surface High Wa Saturatie Water M Sedimer Drift Dep Surface Inundati Water-S ield Obser urface Wate Vater Table aturation P	ater Table (A2) on (A3) larks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye present? Ye	riverine) ine) nagery (B7) s N s N	Aquatic Im Hydrogen Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (O Ilain in Ren shes): shes):	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina Dry-Se Dry-Se Crayfit Crayfit Satura Shallo FAC-N	nge Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3)
Surface High Wa Saturation Water M Sedimer Drift Dep Surface Inundation Water-S ield Obser urface Water Vater Table aturation Pincludes cap	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non bosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye Present? Ye	riverine) ine) nagery (B7) is N is N is N	Aquatic Im Hydrogen Hydrogen Oxidized R Presence a Recent Iro Thin Muck Other (Exp X_ Depth (inc X_ Depth (inc	vertebrates Sulfide Odd thizosphere of Reduced in Reduction Surface (C lain in Ren ches): ches):	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina Dry-Se Dry-Se Crayfit Crayfit Satura Shallo FAC-N and Hydrology Pre	age Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3) leutral Test (D5)
Surface High Wa Saturation Water M Sedimer Drift Dep Surface Inundati Water-S ield Obser urface Water Vater Table aturation Pincludes cap	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye present? Ye resent? Ye pillary fringe) corded Data (stream of	riverine) ine) nagery (87) s N s N s N gauge, mon	Aquatic Im Hydrogen Oxidized F Oxidized F Presence G Recent Iro Thin Muck Other (Exp X_ Depth (inc X_ Depth (inc	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (C dain in Ren ches): ches): ches): photos, pre	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina Dry-Se Dry-Se Crayfit Crayfit Satura Shallo FAC-N and Hydrology Pre	age Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3) leutral Test (D5)
Surface High Wa Saturation Water M Sedimer Drift Dep Surface Inundati Water-S ield Obser urface Water Vater Table aturation Pincludes cap	ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In tained Leaves (B9) vations: er Present? Ye present? Ye resent? Ye pillary fringe) corded Data (stream of	riverine) ine) nagery (87) s N s N s N gauge, mon	Aquatic Im Hydrogen Hydrogen Oxidized R Presence a Recent Iro Thin Muck Other (Exp X_ Depth (inc X_ Depth (inc	vertebrates Sulfide Odd thizosphere of Reduced n Reduction Surface (C dain in Ren ches): ches): ches): photos, pre	or (C1) es along L I Iron (C4) n in Tilled :7) narks)	iving Roo Soils (C6	Draina Dry-Se Dry-Se Crayfit Crayfit Satura Shallo FAC-N and Hydrology Pre	age Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9 w Aquitard (D3) leutral Test (D5)



	DETERMINATI				570			B1
Project/Site: E. (RONEST								
Applicant/Owner: A RICHARD LYON								11-
Investigator(s): MAGNEY LASHLY		Section, 1	Township, Ra	inge: <u>524</u>	TIZN	RUE	5	-
Landform (hillslope, terrace, etc.): <u>はたかれを う</u>	LOPE	Local reli	ef (concave,	convex, none): <u>< L</u>	GHT SL	Te	Slope (%)): _/
Subregion (LRR): INTERIOR DESERT	(D) Lat: 3	5.116	69	Long: 116.2	9543	0	Datum: <u>N</u>	AD 83
Soil Map Unit Name: MOJANE DESELT O	AREA			NWI c	lassification	- 17	LUBF	
Are climatic / hydrologic conditions on the site typic	cal for this time of ye	ar? Yes_	4_ No_	(If no, expla	in in Remar	ks.)		
Are Vegetation, Soil, or Hydrology				Normal Circumstar	nces" preser	nt? Yes	Y	No
Are Vegetation N, Soil, or Hydrology				eeded, explain any				
SUMMARY OF FINDINGS - Attach site				ocations, trans	sects, im	portant	t feature	es, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	× No		the Sampled thin a Wetlar		X	No		
		-		PHEMELAL				Sile and the second
Renains. Para al main 10.15 Plan	MA NEAL	S. Paris	E	VHE MEL AL	STREAD	0.0	VELOT	- Arres
Remarks: LOGE OF DR- LAKE PLAY								
VELLETATION GAND/GENVEL B	ARS NEAR	64-	PLANA	SHOLE LLE	ARLM	VISIE	DLE UP	SLOPE
	ARS NEAR	64-	PLANA	SHOLE LLE	ARLM	VISIE	DLE UP	SLOPE
APPEARS RIVERING - 2010 VI	EL IS ANN	64-	PLana	SHOLE LLE	ARLM	VISIE	DLE UP	SLOPE
VEGETATION - Use scientific names	of plants.	by - vals	PLann <u> <u> </u>Sub- nt Indicator</u>	SHOLE LLE	ARLM FSE IN	v1518 ~ 54	DLE UP	SLOPE
VEGETATION - Use scientific names (<u>Tree Stratum</u> (Plot size:)	of plants. Absolute <u>% Cover</u>	Dominar Species	PLANN E SH nt Indicator ? Status	SHOLE LLE	t workshee	v1518 <u>~ 54</u> t:	DLE UP	SLOPE
VEGETATION - Use scientific names (<u>Tree Stratum</u> (Plot size:) 1	of plants. Absolute <u>% Cover</u>	Dominar Species	PLANA <u>2</u> SH nt Indicator <u>2</u> Status	SHOLE CLE Devision State Number of Domin That Are OBL, Fr	t workshee ACW, or FA	v1518 <u>~ 54</u> t:	DLE UP	SLOPE
VEGETATION - Use scientific names (<u>Tree Stratum</u> (Plot size:)	of plants. Absolute % Cover	Dominar Species	PLANA <u>2</u> SH nt Indicator <u>2</u> Status	SHOLE LLE	t workshee nant Specie ACW, or FA	v1518 <u>~ 54</u> t:	DLE UP	SLOPE
VEGETATION - Use scientific names of <u>Tree Stratum</u> (Plot size:) 1	of plants. Absolute % Cover	Dominar Species	PLANA <u>2</u> SH nt Indicator <u>2</u> Status	SHOLE CLE Dominance Tes Number of Domin That Are OBL, F/ Total Number of Species Across /	t workshee mant Specie ACW, or FA Dominant	visie <u>~ sa</u> t: c:	DLE UP	(A)
VEGETATION - Use scientific names Tree Stratum 1. 2. 3. 4.	ARS NEAL CL IS ANN of plants. Absolute % Cover	Dominar Species	PLANA <u><u><u>x</u></u> SH nt Indicator <u>Status</u></u>	SHOLE LLE Dominance Tes Number of Domin That Are OBL, Fi Total Number of	t workshee nant Specie ACW, or FA Dominant All Strata:	visię <u>~ sa</u> t: s C: s	DLE UP	(A) (B)
VEGETATION GAND/HEAVEL B APPEARS RIVERING 2010 VI VEGETATION – Use scientific names Tree Stratum (Plot size:) 1. 2.	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Dominar Species	PLann 2 Status Status Cover	SHE LE LLE Dominance Tes Number of Domin That Are OBL, Fi That Are OBL, Fi Percent of Domin That Are OBL, Fi	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA	visie <u>v sa</u> t: s C: s c:	1 1	(A) (B)
VEGETATION GAND/HEAVEL B APPEARS RIVERING 2010 VI VEGETATION - Use scientific names Tree Stratum (Plot size:) 1.) 2.) 3. 4. Sapling/Shrub Stratum 1. LO M LOCHIA SEEL(ca	0.045 NEAL <u>c4 15 Ann</u> of plants. <u>Absolute</u> <u>% Cover</u> 	Dominar Species	FLann E SH SH Status Status Cover FACW	SHE LE LLE Dominance Tes Number of Domin That Are OBL, Fr Total Number of Species Across J Percent of Domin That Are OBL, Fr Prevalence Inde	t workshee nant Specie ACW, or FA Dominant All Strata: nant Specie ACW, or FA	višię <u>v sa</u> t: s C: c:	1 1 00	(A) (A) (A) (A/B)
VEGETATION - Use scientific names of VEGETATION - Use scientific names of VEGETATION - Use scientific names of <u>Tree Stratum</u> (Plot size:) 1) 2) 3 4 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 3 4 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 <u>Sapling/Shrub Stratum</u> (Plot size:)	A&S NEAL C4 15 Ann of plants. Absolute % Cover 	Dominar Species	PLann 2 Status Status Cover	SHE LE LLE Dominance Tes Number of Domin That Are OBL, Fr Total Number of Species Across / Percent of Domin That Are OBL, Fr Prevalence Inde 	t workshee nant Specie ACW, or FA Dominant All Strata: nant Specie ACW, or FA	višię <u>v sa</u> t: s C: c: et:	1 1 1 1 1 1 1 1 1	(A) (A) (A) (A/B)
VEGETATION GAND/HEAVEL B APPEARS RIVERING 2010 VI VEGETATION - Use scientific names Tree Stratum (Plot size:) 1.) 2.) 3. 4.	A&S NEAL C4 15 Ann of plants. Absolute % Cover 	Dominar Species	FLann E SH SH Status Status Cover FACW	SHE LE LLE Dominance Tes Number of Domin That Are OBL, Fr Total Number of Species Across J Percent of Domin That Are OBL, Fr Prevalence Inde	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA	višię <u>v sa</u> t: s C: et: <u>Mu</u> x1=_	1 1 1 100	(A) (A) (A) (A/B)
VEGETATION - Use scientific names of VEGETATION - Use scientific names of VEGETATION - Use scientific names of <u>Tree Stratum</u> (Plot size:) 1) 2) 3 4 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 3 4 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 <u>Sapling/Shrub Stratum</u> (Plot size:) 1 2 <u>Sapling/Shrub Stratum</u> (Plot size:)	A&S NEAL C4 15 Ann of plants. Absolute % Cover 	Dominar Species	FLann E SH SH Status Status Cover FACW	SHE LE CLE Dominance Tes Number of Domin That Are OBL, Fr Total Number of Species Across / Percent of Domin That Are OBL, Fr Prevalence Inde <u>Total % Cov</u> OBL species	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA	višię <u>višię</u> t: s C: et: <u>Mu</u> x1= x2=_	1 1 1 100 11 11 11 100	(A) (A) (A) (A/B)
VEGETATION - Use scientific names Tree Stratum (Plot size:) 1	A&S NEAL C4 15 Ann of plants. Absolute % Cover 	Dominar Species	FLAMA	SHE LE LLE Dominance Tes Number of Domin That Are OBL, Fr Total Number of Species Across / Percent of Domin That Are OBL, Fr Prevalence Inde <u>Total % Cov</u> OBL species FACW species	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA ex workshee er of: 5	visie ************************************	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(A) (A) (A) (A/B)
VEGETATION - Use scientific names I. 2. 3. 4. Sapling/Shrub Stratum Plochta 2. ATEIPLEX VERCHI 3. 4. 5. Herb Stratum (Plot size:)	A&S NEAL C4 15 Anno of plants. Absolute % Cover 	Domina: Species	FLAMA	SHE LE CLE Dominance Tes Number of Domin That Are OBL, F/ Total Number of Species Across / Percent of Domin That Are OBL, F/ Prevalence Inde OBL species FACW species FACU species UPL species UPL species	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA ex workshe er of:	visie w sa c: sc: et: x1= x3= x4= x5=	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(A) (A) (B) (A/B)
VEGETATION - Use scientific names Tree Stratum (Plot size:) 1	A&S NEAL C4 15 Anno of plants. Absolute % Cover 	Domina: Species	FLAMA	SHE LE CLE Dominance Tes Number of Domin That Are OBL, F/ Total Number of Species Across / Percent of Domin That Are OBL, F/ Prevalence Inde OBL species FACW species FACW species FACU species	t workshee nant Specie ACW, or FA Dominant All Strata: hant Specie ACW, or FA ex workshe er of:	visie w sa c: sc: et: x1= x3= x4= x5=	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(A) (A) (B) (A/B)

Hydrophytic Vegetation Indicators:

X	Dominance	Test	is	>50%	

×	Prevalence Index is ≤3.01
-	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

Y Problematic Hydrophytic Vegetation¹ (Explain)

gy must

1								'Indicators of hydric s be present, unless dis		
% Bare Ground in	Herb Stratum	60	% Cov	er of Biotic C	-00-0000	tal Cover	_	Hydrophytic Vegetation Present?	res_X	No
Remarks: V€(1	SPA250	- EDGE	05	PLANA	ŧ	BASE	05	EREMERA	L I	~154

20 = Total Cover

٤

1

US Army Corps of Engineers

4. MALALOTHEIX WASELS 5. RAFANESCA NEOMUNICAM

Woody Vine Stratum (Plot size: _

6. SCHIGMUS SQ.

7.

8.

Arid West - Version 2.0

١



	leeded to door	unem me i	nuicator	or commin	m the absence of indicators.)
Depth Matrix	Red	ox Features	5		
	Color (moist)	%	Type'	Loc ²	Texture Remarks
0-36in					UNLONSOLI DATEO SAND
	рĄ	7.7	_		
¹ Type: C=Concentration, D=Depletion, RM=Re Hydric Soil Indicators: (Applicable to all LR	duced Matrix, C Rs, unless oth	CS=Coveres	d or Coate	d Sand G	irains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
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)	Loamy Glo Depleted I Redox Da Depleted I	Matrix (S6) ucky Minera ayed Matrix Matrix (F3) rk Surface (Dark Surfac pressions ((F2) (F6) ce (F7)		 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present): Type: Depth (inches):	-				Hydric Soll Present? Yes <u></u> No
	-	000000000		16.785	& LIKELY ALKALINE SOILS
Remarks: VELETATED SAND	1 RAVIL	BARB			24 June 2015
IYDROLOGY					
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl	heck all that ap	ply)			Secondary Indicators (2 or more required)
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)	Salt Crus Biotic Cr Aquatic I Hydroge Oxidized Presence	st (B11) ust (B12) invertebrate n Sulfide O	dor (C1) res along ad Iron (C4	4)	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)

Water Table Present? Saturation Present? (includes capillary fringe	Yes	No(Depth (inches): Depth (inches):	Wetland Hydrology Present? Yes	×_ No
Describe Recorded Data	a (stream gaug	e, monitoring we	II, aerial photos, previous in	spections), if available:	
Remarks:	PLANO	340KE	USIBLE TO TH	e webt (upscope)	



WETLAND DETERM	MINATION DATA FORM - Arid West Region B2
Project/Site: E. LEONESE	City/County: Son Branne Divo Co Sampling Date: 3/12/14
Applicant/Owner: RICHARS LYONS	State: _ Sampling Point: _ P 6 1 2
Investigator(s): MALNEY LASHLY	Section, Township, Range: <u>S24 TIZN RIDE</u>
Landform (hillslope, terrace, etc.):FLAT	Local relief (concave, convex, none): チャッチャ Slope (%): 〇
Subregion (LRR): INTERIOL DESERT (D)	Lat: 35.11669 Long: 116.24524 Datum: NAD \$3
Soil Map Unit Name: MOSAVE DEGEON AREA (C	A LOAS) NWI classification:
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes 🔟 No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sign	afficantly disturbed? Are "Normal Circumstances" present? Yes 🔀 No
Are Vegetation, Soil, or Hydrology nati	urally 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? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland? Yes	_ No
Remarks: Jan Plana Lake	EDGE, GOSLEMATIC	CONDITIONS PRESENT - SOIL	SURFACE CRACKS

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Species	t Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: 10~)	25	= Total C		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
1. TAMARIX CAMOSISSIMA	15	1	NL (FAL)	Prevalence Index worksheet:
2. ATRIPLEX CONFILENCE	10	_Y_	NL (FAL)	Total % Cover of:Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x3 =5
10	_35	= Total C	over	FACU species x 4 =
Herb Stratum (Plot size: 10 ~)	ц	N	NL	UPL species $x5 =$ Column Totals; 35 (A) 105 (B)
1. FREMOTHERA		-14	- NL	Column Totals: 35 (A) 105 (B)
2. CENTRANTHA LONGLEAF		+		Prevalence Index = B/A =3
3. PELTOLAENA	0	-+-		Hydrophytic Vegetation Indicators:
4. Sculency		-		Dominance Test is >50%
5. Amsinucia	<u> </u>	-		Y Prevalence Index is ≤3.0 ¹
6. <u>Rafancya</u> 7		_¥		 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8				Y Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	10	= Total C	over	
1				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	over of Biotic C	= Total C		Hydrophytic Vegetation Present? Yes X No
Remarks:				L'accession de la construcción de la constru



	ator or committee absence of indicators.
Profile Description: (Describe to the depth needed to document the india Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % T	pe ¹ Loc ² Texture Remarks
36"	UNCONSOLIDATED SAND
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.)	Indicators for Problematic Hydric Solls ³ :
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2	
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Z Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F8) Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Verhal Pools (P9) Sandy Gleved Matrix (S4)	unless disturbed or problematic.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes 🗶 No
Remarks: ONE BRIGHT RED MOTTLE UNCOVERED	
IYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2) Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
Saturation (A3) Aquatic Invertebrates (B	Drift Deposits (B3) (Riverine)

_	Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
	Presence of Reduced Iron (C4)	_	Crayfish Burrows (C8)

- Saturation Visible on Aerial Imagery (C9)

 Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) 		ry (B7)	Thin Muck Surface (C7) Other (Explain in Remarks)	Shallow Aquitard (D3) FAC-Neutral Test (D5)		
Field Observations:						
Surface Water Present?	Yes	No	Depth (inches):	_		
Water Table Present?	Yes	No_	Depth (inches):	-	20 8082 C. 0.07	
Saturation Present? Yes No includes capillary fringe)		No	Depth (inches):	Wetland Hydrology Present? Yes X No		
Describe Recorded Data (st	ream gauge	e, monitorir	ng well, aerial photos, previous insp	ections), if available:		
Remarks:						

___ Presence of Reduced Iron (C4)

____ Recent Iron Reduction in Tilled Soils (C6)

US Army Corps of Engineers

Sediment Deposits (B2) (Nonriverine)

Drift Deposits (B3) (Nonriverine)

X Surface Soil Cracks (B6)



WETLAND DETERMINA	ATION DATA FORM – Arid West Region B3
Project/Site: E. (Lanes€	_ City/County: SAN BERNARSANO CO. Sampling Date: 3/12/14
Applicant/Owner RILLARD LYONS	State: CA Sampling Point: WP013
Investigator(s): MAGNEY LAGHLY	Section, Township, Range: <u>S24</u> T 12N RUE
Landform (hillslope, terrace, etc.): FUNT PLATA BOTTOM	▲ Local relief (concave, convex, none): <u>FLat - NoNE</u> Slope (%): <u>O</u>
Subregion (LRR): INTERIOR DESERT (D) Lat:	35.11667 Long: 11629524 Datum: NAD 53
Soil Map Unit Name: MOJANE DESERT AREA (CAGO	NWI classification: LZUBF
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🔀 No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal Circumstances" present? Yes <u>×</u> No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling point locations, transects, important features, etc.
1	and the second se

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

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3				Total Number of Dominant Image: Species Across All Strata: Image: Species Across All Strata:
4	0_		wer	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
1. ATRIPLEX TORREY!		<u> </u>		Prevalence Index worksheet: Total % Cover of: Multiply by:
2. <u>5</u>				OBL species x 1 =
3		17-11-11-12		FACW species x 2 =
4		-		FAC species 25 $x_3 = 75$
5				
Herb Stratum (Plot size: 10)	_25	= Total Co	wer	FACU species x 4 =
1. SCHISMUS	1	=	(FAC)	UPL species x 5 =
				Column Totals: <u>25</u> (A) <u>75</u> (B)
2				Prevalence Index = B/A =
3				Hydrophytic Vegetation Indicators:
4				× Dominance Test is >50%
5		QT		× Prevalence Index is ≤3.0 ¹
6				Morphological Adaptations ¹ (Provide supporting
7				data in Remarks or on a separate sheet)
8				Y Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		= Total Co	ver	
				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum 7 1 % Cov	_0	= Total Co		Hydrophytic Vegetation Present? Yes No
	VEI OF BIOUC C	rust		Present: 105 NO
Remarks:				
US Army Corps of Engineers				Arid West - Version 2.0

 $\label{eq:loss_lymbol} Y: DMEC Jobs Lyms Mojave Wetland Delineation Vetland Delineation - FINAL/Lyms - Wetland Delineation Report - ECronese Lake-DMEC - 20151113. doc Second S$



Depth <u>Matrix</u> (inches) Color (moist)		eded to document the indicator or i	confirm the absence	of indicators.)
		Redox Features		
Turonosioolor turoisti		color (moist) % Type ¹ I	Δ.	Remarks
12+24 10-183	3		FLUFFY	LOOSE UNCONSOLIDATED SILT
0-12 107R4	-2		CROCKED	(ONSOLIDATES SILTY CLAY
Type: C=Concentration, D=E	Depletion, RM=Red	uced Matrix, CS=Covered or Coated S	Sand Grains. ² Lo	ation: PL=Pore Lining, M=Matrix.
Histosol (A1)	plicable to all crock	Sandy Redox (S5)		Auck (A9) (LRR C)
Histosof (A1) Histic Epipedon (A2)		Stripped Matrix (S6)		Auck (A10) (LRR B)
Black Histic (A3)		Loamy Mucky Mineral (F1)		ed Vertic (F18)
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)	Red P	arent Material (TF2)
Stratified Layers (A5) (LR	RR C)	Depleted Matrix (F3)	<u> ≻</u> Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)		Redox Dark Surface (F6)		
Depleted Below Dark Sur		Depleted Dark Surface (F7)	Madlanter	of hydrophytic vegetation and
Thick Dark Surface (A12)	10 million	Redox Depressions (F8) >> Vernal Pools (F9)		hydrology must be present.
Sandy Mucky Mineral (S1 Sandy Gleyed Matrix (S4		Vernai Pools (F9)		listurbed or problematic.
Restrictive Layer (if present	the second se			
Type:	4.		-	101160
Depth (inches):			Hydric Soil	Present? Yes X No
Remarks:				
(ONDITION	5 POOR	For readox - hig		1
	1.1	CH betwe	en 7.7-8.	7 on 24 June 2015
IYDROLOGY	3.5	PH betwee	en 7.7-8.	7 ON 24 June 2015
	ors:	PH betwe	en 7.7-8.	7 On 24 June 2015
Wetland Hydrology Indicato				7 On 24 June 2015
Wetland Hydrology Indicato Primary Indicators (minimum		eck all that apply)	Seco	o by jone cor
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1)		eck all that apply) Salt Crust (B11)	Seco	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2)		eck all that apply) Salt Crust (B11) Biotic Crust (B12)	<u>Seco</u> V S	ndary Indicators (2 or more required)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	of one required; ch	eck all that apply) Salt Crust (B11)	<u>Seco</u> V S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri	of one required; ch iverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	<u>Seco</u> V S C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	of one required; ch Iverine) (Nonriverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Seco V S C C C ing Roots (C3) D	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (of one required; ch Iverine) (Nonriverine) riverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	Secon V S C C C C C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (Drift Deposits (B3) (Nonri	of one required; ch Iverine) (Nonriverine) riverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)	Secon 	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (Drift Deposits (B3) (Nonri Surface Soil Cracks (B6)	of one required; ch Iverine) (Nonriverine) riverine)) rial Imagery (B7)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Second S	ndary Indicators (2 or more required) Vater 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)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (Drift Deposits (B3) (Nonr Surface Soil Cracks (B6) Inundation Visible on Aer Water-Stained Leaves (B	of one required; ch Iverine) (Nonriverine) riverine)) rial Imagery (B7)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Second S	ndary Indicators (2 or more required) Vater 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)
Wetland Hydrology Indicato Primary Indicators (minimum 	of one required; ch iverine) (Nonriverine) riverine)) rial Imagery (B7) 39)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Second S	ndary Indicators (2 or more required) Vater 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)
Wetland Hydrology Indicato Primary Indicators (minimum 	of one required; ch iverine) (Nonriverine) riverine)) rial Imagery (B7) 39) Yes No _	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Secon Se	ndary Indicators (2 or more required) Vater 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) (AC-Neutral Test (D5)
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (Drift Deposits (B3) (Nonri Surface Soil Cracks (B6) Inundation Visible on Aer Water-Stained Leaves (B Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present?	of one required; ch (Nonriverine) riverine) rial Imagery (B7) 39) Yes No _ Yes No _	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	Second	ndary Indicators (2 or more required) Vater 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) (AC-Neutral Test (D5)

LIS Army Come of Engineers



roject/Site: E. LONESE	(City/County:	SAN BE	CONARDINO C	o. Sam	pling Da	te: 3 (2/14
pplicant/Owner: RICHARD LYONS								
				ige: 524				
andform (hillslope, terrace, etc.): FLAT PLAMA): 0
ubregion (LRR): INTERIOL DESERT (D)								
I Map Unit Name: MOSAVE DESERT AREA				NWI d				
e climatic / hydrologic conditions on the site typical for		-						
e Vegetation, Soil, or Hydrology				Normal Circumstan			X	No
e Vegetation, Soil, or Hydrology				eded, explain any a				
UMMARY OF FINDINGS – Attach site ma	n showing	sampling	noint lo	cations trans	ects. imr	ortan	t featur	es. etc
	panoning	Junping	ponitio	outono, trans				
Hydrophytic Vegetation Present? Yes	No	Is the S	Sampled	Area				
Hydric Soil Present? Yes X Wetland Hydrology Present? Yes X	No No	within	a Wetland	d? Yes	<u>×</u>	No		
Reexamined by D. Magney and V	leronita (Ch	m) Lee	on 28	3 activer 21	214			
GPS Waypoint 019 34.11661 N 116.				Hydrology,	soits,21	veg f	positive	l. –
EGETATION – Use scientific names of pla								
-GETATION - Ose scientific names of pla	Absolute	Dominant In	dicator	Dominance Test	worksheet			
ree Stratum (Plot size:)		Species?		Number of Domin			1	
-				That Are OBL, FA	CW, or FAC	:	1	_ (A)
				Total Number of I			x =	
L				Species Across A	JI Strata:	<u> </u>	-	_ (B)
2016	0	= Total Cover		Percent of Domin That Are OBL, FA			00	(A/B
Sapling/Shrub Stratum (Plot size: 10 ~)	2298 ²⁰	80 2 3			3	. <u>-</u>		- (100
ATRIPLEX TORREMI	30	<u> </u>	FAL	Prevalence Inde			diana ha m	÷.,
				Total % Cove OBL species		0.000		0.000
•				FACW species				
			-200	FAC species	80	x 3 =	90	
Lo.	30	= Total Cover		FACU species	1	x 4 =		
Herb Stratum (Plot size: 10 m)	2		VL(Fac)				102111-0	
1. SCHKMUS SP.			ola.	Column Totals: _	30	(A) .	90	(B)
k				Prevalence	Index = B/A	=	3	
s				Hydrophytic Veg	the second se			
				K Dominance 1				
·				¥ Prevalence In				
·				Morphologica	Adaptation marks or on	a sena	vide suppo rate sheet	orting
l				L Problematic				
Noody Vine Stratum (Plot size:)	_1_	= Total Cover					53.90 S. S.	00050
1	51.97			¹ Indicators of hyd				must
2.				be present, unles	s disturbed o	or proble	ematic.	10-00-000
	0	= Total Cover		Hydrophytic				
% Bare Ground in Herb Stratum 66 % Co	ver of Biotic Cr	ust		Vegetation Present?	Yes X	N	00	
Remarks:		v				-		

 $Y: \label{eq:loss_lyons_loss_lyons$



Depth	iption: (Describe to t Matrix		Redo	x Features			Dennete
inches)	Color (moist)	%	Color (moist)	% Type	Loc	Texture	Remarks
2-14	10 YR 4/3_					CRACKED	CONSOLIDATED SILTY CLAY
1/2-36	10 YR 3/3		104R 4/4	<u>rane</u>		<u>.</u>	
Type: C=Co	ncentration, D=Depletion ndicators: (Applicable	on, RM=Re	duced Matrix, C	S=Covered or Coa	ted Sand Gr		s for Problematic Hydric Soils ³ :
Histosol (Histic Epi Black His Hydroger	A1) ipedon (A2)		Sandy Red Stripped M Loamy Musical	dox (S5) latrix (S6) cky Mineral (F1) ryed Matrix (F2)		2 cm Redu Red F	Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18) Parent Material (TF2) r (Explain in Remarks)
1 cm Muo Depleted Thick Da Sandy M	ck (A9) (LRR D) Below Dark Surface (A rk Surface (A12) ucky Mineral (S1)	(11)	Redox Dar Depleted D	rk Surface (F6) Dark Surface (F7) pressions (F8)		³ Indicators wetland	s of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.
Sannyra	eved Maurix (Set						
and the second se	leyed Matrix (S4) aver (if present):						
Restrictive L	ayer (if present):	_					N/
Type: Depth (inc	ayer (if present):	FOO R	I Charles and the	erax			il Present? Yes <u>X</u> No
Restrictive L Type: Depth (inc Remarks:	ayer (if present): hes): しんしょていしょら	FOO R	Therefore the	edax 0H 8.71	on ·		
Restrictive L Type: Depth (inc Remarks: YDROLO	ayer (if present): hes): ッパウィナ いっぷ ら GY	Foo R	Therefore the		on ·		
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc	ayer (if present): hes): っ みつ ヽ て いっ み ら GY trology Indicators:		(0H 8.71	on ·	2.4 J.	ine 2015
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic	ayer (if present): hes):		(0H 8.71	on ·	2.4 Ju	ondary Indicators (2 or more required)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface	ayer (if present): hes):		heck all that app	0H8.7 0W) 18(B11)	on '	2.4 Ju	ondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface ' High Wa	ayer (if present): hes):		heck all that app Salt Crus Biotic Cru	2 H 8.7 ply) st (B11) ust (B12)		2.4 Ju 	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface V High Wa Saturatic	ayer (if present): hes):	required; c	heck all that app Salt Crus Biotic Cru Aquatic Iu	2 H 8.7 ply) st (B11) ust (B12) nvertebrates (B13)		2.4 Ju <u>Sec</u>	ondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface V High Wa Saturatic Water M	ayer (if present): hes): box box to to to box box box to to box box box to box b	required; c	heck all that app Salt Crus Biotic Cru Aquatic In Hydroger	DH 8.71 ply) st (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1)		2.4 Ju 	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface V High Wa Saturatic Water M Sedimen	ayer (if present): hes):	required; c) verine)	heck all that apg Salt Crus Biotic Cru Aquatic In Hydroger Oxidized	ply) at (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres alor) ng Living Ro	2.9 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: Primary Indic Surface ' High Wa Saturatic Water M Sedimen Drift Dep	ayer (if present): hes):	required; c) verine)	heck all that apg Salt Crus Biotic Cru Aquatic In Hydroger Oxidized Presence	DH 8.71 ply) st (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1)) ig Living Ro C4)	2.9 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: Primary Indic Surface ' High Wa Saturatic Water M Sedimen Drift Dep Surface	ayer (if present): hes):	required; c) verine) e)	heck all that app Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir	ply) at (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres alor e of Reduced Iron () ig Living Ro C4)	2.9 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: Primary Indic Saturatic High Wa Saturatic Water M Sedimen Drift Dep Surface Inundatio	ayer (if present): hes):	required; c) verine) e)	heck all that app Salt Crus Biotic Cru Aquatic lu Hydroger Oxidized Presence Recent Ir Thin Muc	2 H 8.7 ply) st (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres alor e of Reduced Iron (ron Reduction in Ti) ng Living Ro C4) Iled Soils (C	2.9 J. <u>Sec</u> 6) X	ondary 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
Restrictive L Type: Depth (inc Remarks: YDROLOO Netland Hyc Primary Indic Saturatic Saturatic Water M Sedimen Drift Dep Surface Inundatic Water-S	ayer (if present): hes): A O ITION S GY frology Indicators: ators (minimum of one Water (A1) ter Table (A2) wn (A3) arks (B1) (Nonriverine to Deposits (B2) (Nonriverine Soil Cracks (B6) on Visible on Aerial Ima tained Leaves (B9)	required; c) verine) e)	heck all that app Salt Crus Biotic Cru Aquatic lu Hydroger Oxidized Presence Recent Ir Thin Muc	DH 8.7 ply) st (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres alor e of Reduced Iron (ron Reduction in Ti ck Surface (C7)) ng Living Ro C4) Iled Soils (C	2.9 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyo Primary Indic Surface High Wa Saturatic Saturatic Water M Sedimen Drift Dep Surface Inundatii Water-S Field Obser	ayer (if present): hes):	required; c) verine) e) igery (B7)	heck all that app Salt Crus Biotic Cru Aquatic lu Hydroger Oxidized Presence Recent Ir Thin Muc	2 H 8.7 ply) st (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres alor e of Reduced Iron (ron Reduction in Ti ck Surface (C7) xplain in Remarks)) ng Living Ro C4) Iled Soils (C	2.9 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyo Primary Indio Surface I High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Wate	ayer (if present): hes):	required; c) verine) e) ogery (B7)	heck all that app Salt Crus Biotic Cru Aquatic li Hydroger Oxidized Presence Recent lir Thin Muc Other (E: Depth (ii)	DH 8.7) ng Living Ro C4) Iled Soils (C	2.9 J. 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyo Primary Indig Surface I High Wa Saturatic Water M Sedimen Drift Dep Surface Inundation Water-S Field Obsern Surface Water Surface Water Surf	ayer (if present): hes):	required; c) verine) e) ogery (B7) No No	heck all that app Salt Crus Biotic Cru Aquatic li Hydroger Oxidized Presence Recent li Thin Muc Other (E)	DH 8.7) ng Living Ro C4) Iled Soils (C	2.9 J. 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface V High Wa Saturatio Water M Sedimer Drift Dep Surface Mater-S Field Obser Surface Water Saturation P/ Saturation P/ Saturation P/	ayer (if present): hes):	required; c) verine) e) mgery (B7) No No No	heck all that app Salt Crus Biotic Cru Aquatic li Hydroger Oxidized Presence Recent lr Thin Muc Other (E) Depth (i L Depth (i	2 H 8.7) ng Living Ro C4) Iled Soils (C	2. 4 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyo Primary Indio Surface I High Wa Saturatio Water M Saturatio Nater M Surface Inundatio Surface Inundatio Water-S Field Obsern Surface Water Saturation Pri (includes cap Describe Re	ayer (if present): hes): 	required; c) verine) e) mgery (B7) No No No	heck all that app Salt Crus Biotic Cru Aquatic li Hydroger Oxidized Presence Recent lr Thin Muc Other (E) Depth (i L Depth (i	2 H 8.7) ng Living Ro C4) Iled Soils (C	2. 4 J. <u>Sec</u> 	ondary 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)
Restrictive L Type: Depth (inc Remarks: YDROLOO Wetland Hyc Primary Indic Surface I High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Wate Water Table Saturation Pri (includes cap Describe Re Remarks:	ayer (if present): hes): 	required; c) verine) e) ngery (B7) No No No No No	heck all that app Salt Crus Biotic Crus Hydroger Oxidized Presence Recent Ir Chin Muc Other (E) Depth (i Depth (i Depth (i Depth (i	D H 8.7) ng Living Ro C4) Iled Soils (C	2. 4 J. <u>Sec</u> 	ondary 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)



Project/Site: E. CRONESE	City/County: SAN DEDNALDING Co. Sampling Date: 3 12/14
Applicant/Owner: RULLARD LYONS	State: Sampling Point: Sampling Point: Point:
Investigator(s): MAGNEY (LASHIGUTAL FAN	Section, Township, Range: 524 TIZN RUE
Landform (hillslope, terrace, etc.): GENTLE SLOPE	Local relief (concave, convex, none): CONVEX Slope (%):
	Lat: 35.11560 Long: 116.29708 Datum: NADA3
Soil Map Unit Name: MOJANE DESELT ALCA	(CAGAS) NWI classification: NONE (LACUST RINE
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes V No (If no, explain in Remarks.) FRINGE)
Are Vegetation, Soil, or Hydrology si	
Are Vegetation N, Soil N, or Hydrology N na	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	NoX NoX NoX	Is the Sampled Area within a Wetland?	Yes No
Remarks: Ø. JPSIOPE ON	VISIGLE	BANK + CL	ERR CHANKE IN	veh / soils

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1.		Dominant Inc Species? Si	tatus	Dominance Test worksheet: Number of Dominant Species That Are OBL. FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata:(B)
4		= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. TROSOPIS JUST UPSLOPE OUT OF	- PLOT	7 (F	COA	Prevalence Index worksheet:
2. LAPEEA " " 4 "	6	4		Total % Cover of: Multiply by:
3.			-	OBL species x 1 =
4.				FACW species x 2 =
5.				FAC species x 3 =
		= Total Cover		FACU species x 4 =
Herb Stratum (Plot size:)				UPL species x 5 =
1. Pectocraine	_2_	2		Column Totals: (A) (B)
2. CRUPTONTHA SHORT LEAVED	_ 2			
3. Sysimbeim	2		_	Prevalence Index = B/A =
4. MALALOTHAIX	2			Hydrophytic Vegetation Indicators:
5. EREMOTHERA	1			Dominance Test is >50%
6. PLANTEGO	_2			Prevalence Index is ≤3.0'
7. 5-12105	1	(Fo	AC)	Morphological Adaptations ¹ (Provide supporting
8. CORIZONTHE	2	0		data in Remarks or on a separate sheet)
	16	= Total Cover		Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1			_	be present, unless disturbed or problematic.
2		= Total Cover		Hydrophytic
% Bare Ground in Herb Stratum % Cover				Vegetation Present? Yes No X
Remarks:				



	needed to document the indicator o	r confirm the abs	ence of indicators.)
Depth <u>Matrix</u>	Redox Features Color (moist) % Type ¹	Loc ² Textu	re Remarks
17"			LKY SILTY SAND
	· · · · · · · · · · · · · · · · · · ·		
ype: C=Concentration, D=Depletion, RM=Re	durad Matrix CC=Coursed or Costor	Sand Grains	² Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LR	Rs unless otherwise noted.)	Indic	ators for Problematic Hydric Soils ³ :
	Sandy Redox (S5)		cm Muck (A9) (LRR C)
 Histosol (A1) Histic Epipedon (A2) 	Stripped Matrix (S6)		cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)		Reduced Vertic (F18)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)		Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indic	ators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		tland hydrology must be present,
Sandy Gleyed Matrix (S4)			less disturbed or problematic.
estrictive Layer (if present):			
Tuno:			
Type:		Hudele	Soll Present? Ves No X
Depth (inches):		Hydric	c Soil Present? Yes No
Depth (inches):		Hydric	c Soil Present? Yes No
Depth (inches):	-	Hydric	c Soll Present? Yes No
Depth (inches):	heck all that apply)		c Soil Present? Yes No
Depth (inches): remarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c			Secondary Indicators (2 or more required)
Depth (inches): emarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c Surface Water (A1)	Salt Crust (B11)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches): emarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches): remarks: //DROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one required; c Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Depth (inches): emarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches): remarks: //DROLOGY //etland Hydrology Indicators: rrimary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L	iving Roots (C3)	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)
Depth (inches): temarks: //DROLOGY //etland Hydrology Indicators: //imary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4)	iving Roots (C3)	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)
Depth (inches): temarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C3)	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 (C
Depth (inches): temarks: //DROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7)	iving Roots (C3)	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 (C Shallow Aquitard (D3)
Depth (inches): temarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C3)	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 (C
Depth (inches): temarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) 	Living Roots (C3)	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 (C Shallow Aquitard (D3)
Depth (inches): temarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7)	Living Roots (C3)	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 (C Shallow Aquitard (D3)
Depth (inches): emarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; c 	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) 	Living Roots (C3)	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 (C Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches):	Living Roots (C3)	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 (C Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	iving Roots (C3)	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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5) rology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	iving Roots (C3)	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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5) rology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	iving Roots (C3)	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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5) rology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	iving Roots (C3)	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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5) rology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	iving Roots (C3)	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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5) rology Present? Yes No

LIC Army Corne of Engineere



WETLAND DI	TERMINATION DATA FORM – Arid West Region
Project/Site: E. LADAESE	City/County: SAN BERNINZOINO Co. Sampling Date: 3/12/14
Applicant/Owner: Richard Lyons	State: CA Sampling Point: 016
Investigator(s): MAGNEY LASHLY	
Landform (hillslope, terrace, etc.): NEAR FLAT	PLAMA EPSE Local relief (concave, convex, none): NONE Slope (%): 0. 5
Subregion (LRR): INTERIOR DESERT (D) Lat: 35. 11562 Long: 116. 24698 Datum: MAD 83
Soil Map Unit Name: MOSAVE DESERT ARE	
	or this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation N., Soil N., or Hydrology	
Are Vegetation, Soil, or Hydrology	
	nap showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No Kite Sampled Area WATERS
Hydric Soil Present? Yes	- No X within a Wetland? Yes No X
Wetland Hydrology Present? Yes X	No
Remarks:	

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	_ (A)
234		= Total Cover	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:	(B) (A/B)
Sapling/Shrub Stratum (Plot size:) 1.			Prevalence Index worksheet:	_
5	$\frac{1}{2}$	_= Total Cover	FAC species X3 = FACU species X4 = UPL species X5 = Column Totals: (A) Prevalence Index = B/A =	 (B)
4 5 6			Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morohological Adaptations ¹ (Provide support	ortina

5 = TOTAL LOVER

% BARE GROWND = 95 % BIOTIL LOUSE = O HUDEO PHYTIC VEGETATION





	th needed to document the indicator or co	omm the absence	or indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	Color (moist) % Type ¹ _Lo	oc ² Texture	Remarks
D - 1/4		LEALVED	
0. 74		CRACKED	
× - 12"			ROCKY SAND
Every C=Concentration D=Depletion RM	=Reduced Matrix, CS=Covered or Coated Sa	and Grains. ² Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators	for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm /	Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm M	Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduc	ed Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red P	arent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
 Depleted Below Dark Surface (A11) 	Depleted Dark Surface (F7)	-	
_ Thick Dark Surface (A12)	Redox Depressions (F8)	176737236363	of hydrophytic vegetation and
Cond. Martin Minerel (C4)	Versel Bools (E0)	wetland	hydrology must be present,
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		
Sandy Gleyed Matrix (S4)	Vemai Pools (P9)		listurbed or problematic.
Sandy Gleyed Matrix (S4)			
Sandy Gleyed Matrix (S4)	Vernai Pools (F9)		
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):	Vernai Poois (F9)		disturbed or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks:		unless o	disturbed or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY	Vernai Poois (F9)	unless o	disturbed or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators:		unless o	listurbed or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one require	ed; check all that apply)	Unless of Hydric Soil	Isturbed or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one requireSurface Water (A1)	ed; check all that apply) Salt Crust (B11)	Unless of Hydric Soil	Isturbed or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12)	Unless of Hydric Soil	Isturbed or problematic.
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: //DROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Unless of Hydric Soil	Isturbed or problematic. Present? Yes No ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine)
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3)Water Marks (B1) (Nonriverine)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Unless of Hydric Soil	Isturbed or problematic. Present? Yes No ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3)Water Marks (B1) (Nonriverine)Sediment Deposits (B2) (Nonriverine)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir	unless of Hydric Soil	Isturbed or problematic. Present? Yes No ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orift Deposits (B3) (Riverine) Orianage Patterns (B10) Ory-Season Water Table (C2)
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4)	unless of Hydric Soil	Isturbed or problematic. Present? Yes No ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orifi Deposits (B3) (Riverine) Orifi Deposits (B3) (Riverine) Orianage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3)Water Marks (B1) (Nonriverine)Sediment Deposits (B2) (Nonriverine)Drift Deposits (B3) (Nonriverine)Surface Soil Cracks (B6)	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	unless of Hydric Soil	Isturbed or problematic. Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): temarks:	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So 87)Thin Muck Surface (C7)	unless of Hydric Soil	Isturbed or problematic. Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks:	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	unless of Hydric Soil	Isturbed or problematic. Present? Yes No
Sandy Gleyed Matrix (S4) Estrictive Layer (if present): Type: Depth (inches): temarks:	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So 87) Thin Muck Surface (C7) Other (Explain in Remarks)	unless of Hydric Soil	Isturbed or problematic. Present? Yes No
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3) Water Marks (B1) (Nonriverine)Sediment Deposits (B2) (Nonriverine)Surface Soil Cracks (B6)Drift Deposits (B3) (Nonriverine) X Surface Soil Cracks (B6)Nundation Visible on Aerial Imagery (BWater-Stained Leaves (B9) Field Observations: Surface Water Present? Yes		unless of Hydric Soil	Isturbed or problematic. Present? Yes No
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one requireSurface Water (A1)High Water Table (A2)Saturation (A3)Saturation (A3)Saturation (A3)Sediment Deposits (B2) (Nonriverine)Drift Deposits (B3) (Nonriverine)Surface Soil Cracks (B6)Nurdation Visible on Aerial Imagery (BWater-Stained Leaves (B9) Field Observations:		unless of Hydric Soil	Isturbed or problematic. Present? Yes No



Tree Stratum (Plot size:) % Cover S 1 2	ction, Township, Ran cal relief (concave, c 115 (0 - { 2) Yes No _ turbed? Are ? ampling point lo Is the Sampled within a Wetlan 28 October 24	
addorm (hillslope, terrace, etc.): Prove SUPPACE Lot bregion (LRR): Note 2002 Desear (D) Lat: D) il Map Unit Name: Moson Desear (D) Lat: D) il Map Unit Name: Moson Desear (D) Lat: D) il Map Unit Name: Moson Desear (D) Lat: D) e climatic / hydrologic conditions on the site typical for this time of year? e vegetation N, soil N, or Hydrology N significantly dist e Vegetation N, Soil N, or Hydrology N naturally proble JMMARY OF FINDINGS - Attach site map showing satisfy dist lydrophytic Vegetation Present? Yes No lydrophytic Vegetation Present? Yes No Vetland Hydrology Present? Yes No Vetland Hydrology Present? Yes No Ler if ed by D. Mogney Veron.20 (Chan) Lee on EGETATION - Use scientific names of plants. Mosolute D 'mee Stratum (Plot size:) % Cover S	cal relief (concave, c 115 (0 -(Yes No _ turbed? Are ? ampling point lo Is the Sampled within a Wetlan 28 october 20 Dominant Indicator Species? Status	convex, none): f Int - NONE Slope (%): Long:
region (LRR): INTERIOR DESERT (D) Lat: DT Map Unit Name: MOSANE DESERT (D) Lat: DT Imate Unit Name: MOSANE DESERT (D) Lat: DT Vegetation Imate Not Set (LA 645) Vegetation Imate Not Set (D) Significantly dist Vegetation Imate Not Set (D) Significantly dist Vegetation Imate Not	115 (0 -4 Yes No turbed? Are ? turbed? Are ? ampling point log If new ampling point log Within a Wetlan 28 October 20 Dominant Indicator Species? Status	Long: 1 6 2 4 6 4 6 1 Datum: WAD
region (LRR): INTERIOR DESERT (D) Lat: DT Map Unit Name: Mesane DESERT (D) Lat: DT Map Unit Name: Mesane DESERT (D) Lat: DT Imatic / hydrologic conditions on the site typical for this time of year? Vegetation Imatic / hydrology Mignitization or Hydrology Mignitization or Hydrology Mignitization Vegetation Imatic / Soil Imatic / hydrology Mignitization naturally problem MMARY OF FINDINGS - "Attach site map showing sate Mignitization No Imatication Idrophytic Vegetation Present? Yes No Imatication Imarks: Yes No Imarks: Imarks: Imarks: Imarks: Mogney Absolute Imarks: Imarks: Imarks: Imarks: Imarks: Imarks: Imarks: Imarks: <td>115 (0 -4 Yes No turbed? Are ? turbed? Are ? ampling point log If new ampling point log Within a Wetlan 28 October 20 Dominant Indicator Species? Status</td> <td>Long: 1 6 2 4 6 4 6 1 Datum: WAD </td>	115 (0 -4 Yes No turbed? Are ? turbed? Are ? ampling point log If new ampling point log Within a Wetlan 28 October 20 Dominant Indicator Species? Status	Long: 1 6 2 4 6 4 6 1 Datum: WAD
Map Unit Name: Mesone DESCER MEA (LA 645 climatic / hydrologic conditions on the site typical for this time of year? Vegetation A., Soil P., or Hydrology Significantly dist Vegetation A., Soil P., or Hydrology Instrumently dist Vegetation A., Soil N., or Hydrology Instrumently dist MMARY OF FINDINGS - *Attach site map showing sa drophytic Vegetation Present? Yes No dric Soil Present? Yes No etland Hydrology Present? Yes No marks: Sifed by D. Magney & Veron.20 (Char) Lee on GETATION - Use scientific names of plants. Absolute D ee Stratum (Plot size:) % Cover S	Yes No VesNo turbed? Are ? matic? (If nee ampling point lo is the Sampled within a Wetlan 28 ochdor 20 Dominant Indicator Species? Status	NWI classification:
climatic / hydrologic conditions on the site typical for this time of year? Vegetation, Soil, or Hydrology significantly dist Vegetation, Soil, or Hydrology naturally proble MMARY OF FINDINGS - "Attach site map showing sa drophytic Vegetation Present? Yes No dric Soil Present? Yes No etland Hydrology Present? Yes No etland Hydrology Present? Yes No etland Hydrology Present? Yes No etland Hydrology D. Mzgney & Veron.22 (Char) Lee on GETATION - Use scientific names of plants. <u>ee Stratum</u> (Plot size:) <u>% CoverS</u>	Ves No turbed? No turbed? Are ? ematic? (If ner ampling point lo the sampled within a Wetlan 28 ochdor 20 cominant Indicator species? Status	Normal Circumstances" present? Yes <u>No</u> neded, explain any answers in Remarks.) ocations, transects, important features, etc Area ad? Yes <u>No</u> o(4 Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant
Vegetation, Soil, or Hydrology significantly dist Vegetation, Soil, or Hydrology naturally proble MMARY OF FINDINGS - Attach site map showing sa idrophytic Vegetation Present? Yes No	turbed? Are ? amatic? (If new ampling point lo Is the Sampled within a Wetlan 28 October 24 Dominant Indicator Species? Status	Normal Circumstances" present? Yes <u>No</u> neded, explain any answers in Remarks.) ocations, transects, important features, etc Area ad? Yes <u>No</u> o(4 Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant
Vegetation, Soil, or Hydrology naturally problem MMARY OF FINDINGS - *Attach site map showing sa drophytic Vegetation Present? Yes No dric Soil Present? Yes No etland Hydrology Present? Yes No etland Hydrology Present? Yes No marks: Drifed by D. Mzgney & Veron.22 (cham) Lee on GETATION - Use scientific names of plants. ee Stratum (Plot size:) % Cover_S	ematic? (If nee ampling point lo Is the Sampled within a Wetlan 28 October 24 Dominant Indicator Species? Status	beded, explain any answers in Remarks.) cocations, transects, important features, etc. Area bd? Yes No borninance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 Total Number of Dominant
MMARY OF FINDINGS - *Attach site map showing sate drophytic Vegetation Present? Yes No dric Soil Present? Yes No etland Hydrology Present? Yes No getant Hydrology Present? Yes Yes getant Hydrology D. Mzgney & Veron.22 (Chan) Lee on getant Hydrology Present? Msolute D getant Hydrology Present? Msolute No getant Hydrology Present? Msolute No getant Hydrology Present? Msolute No	Is the Sampled within a Wetlan 28 October 20 Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Image: Total Number of Dominant
Indrophytic Vegetation Present? Yes X No Indric Soil Present? Yes X No Indrophytic Vegetation Present? Indrophytic Vegetation Present? Indrophytic Vegetation Present? Indrophytic Vegetation Present? Indrophytic Vegetation Present? Indrophytic Vegetation Present? Indrophytic Vegetation Present Indrophytic Vegetation Present Indrophytic Vegetation Present Indrophytic Vegetation Present Indrophytic Vegetation Present Indrophytic Veget	Is the Sampled within a Wetlan 28 October 24	Area Ad? Yes No O(4
dric Soil Present? Yes X No	Within a Wetlan	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant
ydric Soll Present? Yes X No etland Hydrology Present? Yes X No emarks: Kerön.22 (Chan) Lee on crifed by D. Magney & Verön.22 (Chan) Lee on GETATION - Use scientific names of plants. ree Stratum (Plot size:) % Cover S	within a Wetlan 28 October 20 Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant
GETATION - Use scientific names of plants.	28 October 20 Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant
GETATION - Use scientific names of plants. ee Stratum (Plot size:) Absolute D % Cover S	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant
GETATION – Use scientific names of plants.	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant
GETATION – Use scientific names of plants.	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant
ee Stratum (Plot size:) Absolute D	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant
ee Stratum (Plot size:) Absolute D	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant
		That Are OBL, FACW, or FAC: (A) Total Number of Dominant
=		Species Across All Strata: (B)
=		Percent of Dominant Species
	Total Cover	That Are OBL, FACW, or FAC: 100 (A/B
Atriplex torrey 25	Y FAC	Prevalence Index worksheet:
Attributes tourcest		Total % Cover of: Multiply by:
		OBL species x 1 =
		FACW species x 2 =
		FAC species x3=75
25 =	Total Cover	FACU species x 4 =
arb Stratum (Plot size:)		UPL species x 5 =
Amsinckia tessellata 15_		Column Totals: (A) (B)
Sysimbrium 5_		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)
7.0 -	Total Cover	Yeroblematic Hydrophytic Vegetation' (Explain)
Voody Vine Stratum (Plot size:)		
		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		be present, uness distance of proventatio.
	Total Cover	Hydrophytic
% Bare Ground in Herb Stratum _ 5.5 % Cover of Biotic Crus	st O	Vegetation Yes Yes No
Remarks:		
lenierio.		

US Army Corps of Engineers

Arid West - Version 2.0



Profile Description: (Describe to the depth needed to document the indicato	or or confirm the absence of indicators.)
Depth Matrix Redox Features	
inches) Color (moist) % Color (moist) % Type	Loc ² Texture Remarks
2-14 104R 4.3	LRAVED RATES SILTY CLAY
19-24 10 YR 3-3	SOFT UNCONSOLIDATED CLAY -
0- Y4" 10 YR 4/2	
4" 10 YR 4/2 10 YR 5/4 15%	
· · · · · · · · · · · · · · · · · · ·	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coa	ated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis ³ :
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
_ Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
_ Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
	Red Parent Material (TF2)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) ? Z Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present.
Sandy Modey Milleral (S1)	unless disturbed or problematic.
estrictive Layer (if present):	
Туре:	Hydric Soil Present? Yes X No
Type: Depth (inches):	Hydric Soil Present? Yes <u>V</u> No
Type: Depth (inches): Zemarke:	
Type: Depth (inches): Remarks: Pool LONDITIONS for HADRIC FORMAT	
Type: Depth (inches): Remarks: Pool LONDITIONS for HADRIC FORMAT	10~2
Type: Depth (inches):	
Type: Depth (inches): remarks: Pool LONDITIONS FOR HADRIC FORMAT Gas bubbles present	10~2
Type: Depth (inches): remarks: Poor LONDITIONS for HADRIC FORMAT Gas bubbles present (DROLOGY	
Type: Depth (inches): lemarks: Pool LONDITIONS for HNDEIL FORMING Gas bubbles present YDROLOGY Vetland Hydrology Indicators:	10~2
Type: Depth (inches): emarks: Pool LONDITIONS FOR HADRIC FORMATI Gas bubbles present /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply)	
Type: Depth (inches): emarks: Pool LONDITIONS for HNDEIC FORMATIC Gas bubbles present /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) _ Surface Water (A1) Salt Crust (B11)	ہما Secondary Indicators (2 or more required)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELL FORMATION Gas bubbles present /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12)	ارمی <u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELL FORMATION Gas bubbles present TDROLOGY Tetland Hydrology Indicators: timary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) X Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) — Water Marks (B1) (Riverine) — Sediment Deposits (B2) (Riverine) — Drift Deposits (B3) (Riverine)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELL FORMATION Gas bubbles present TDROLOGY Tetland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Biotic Crust (B12) X Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELL FORMATION Gas bubbles present TDROLOGY Tetland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) 	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ng Living Roots (C3) Dry-Season Water Table (C2)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELC FORMATING Gas bubbles present TDROLOGY Tetland Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) X Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres alon Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (Secondary Indicators (2 or more required)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELC FORMATING Gas bubbles present TDROLOGY Tetland Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Salt Crust (B12) Xaquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres alor Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (Surface Soil Cracks (B6) Recent Iron Reduction in Til	Secondary Indicators (2 or more required)
Type: Depth (inches): emarks: Pool LONDITIONS for HNDELC for MAT Gas bubbles present TDROLOGY Tetland Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres alon Drift Deposits (B2) (Nonriverine) Oxidized Rhizospheres alon Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (Surface Soil Cracks (B6) Recent Iron Reduction in Til Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)	Secondary Indicators (2 or more required)
Type:	Secondary Indicators (2 or more required)
Type:	Secondary Indicators (2 or more required)
Type:	Secondary Indicators (2 or more required)
Type:	Secondary Indicators (2 or more required)
Type:	Secondary Indicators (2 or more required)

US Army Come of Engineers

Remarks:



WETLAND DETERMINAT	ION DATA FORM – Arid West Region D.1
Project/Site: E CRONESE	City/County: SAN BERNARDING Co Sampling Date: 3/12/14
Applicant/Owner: REMARD LYONS	State: CA Sampling Point: 018
Investigator(s): MAGNEY LASHLY	Section, Township, Range: 524 T 12N RGE
Landform (hillslope, terrace, etc.): ALLUVIAL FAN EDGE	Local relief (concave, convex, none): <u>Lovite Funt Stofe</u> Slope (%): 2
Subregion (LRR): INTERIOR DESERT (D) Lat:	35.11197 Long: 116.29856 Datum: NADB3
Soil Map Unit Name: MOTAVE DESERT ARED (CA UAN	5) NWI classification: L2UBF
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	이렇게 잘 잘 잘 잘 잘 하는 것 같아요. 이렇게 잘 잘 잘 잘 잘 잘 잘 잘 잘 잘 잘 하는 것 같아요. 이렇게 잘 하는 것 같아요. 이렇게 잘 잘 잘 하는 것 같아요. 이렇게 하는 것 같아요. 이 나는 것 같아요. 이렇게 하는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 하는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 이렇게 아니는 것 같아요. 이렇게 아니는 이 아니는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 아니는 것 같아요. 이렇게 아니는 것 않는 것 않는 것 같아요. 이렇게 아니는 것 않는 것
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No_ <u>×</u> No_ <u>×</u>	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					the state of the second
					Contract The second second

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)	1.	Dominant Species?	Status	Dominance Test worksh Number of Dominant Spe That Are OBL, FACW, or	cies >>	(A)
2 3				Total Number of Dominan Species Across All Strata	5 S S S S S S S S S S S S S S S S S S S	(B)
4		= Total Co		Percent of Dominant Spec That Are OBL, FACW, or	FAC:	(A/B)
1. ATRIPLEK LANESLENCE	2	2	NL(FAC)	Prevalence Index works	heet:	
2	_			Total % Cover of:		
3.				OBL species	x 1 =	
4.				FACW species	x 2 =	
5			100	FAC species	x 3 =	1.1
	2	= Total Co	ver	FACU species	x 4 =	11-11
Herb Stratum (Plot size:)				UPL species	x 5 =	
1. CAMISSIONIA				Column Totals:		
2. RAFANESCA	<u> </u>					
3. CORIZANTHE BREVICERNJ	1	1		Prevalence Index =	and the second se	
4. PUNTALO	- 2	- 7	<u></u>	Hydrophytic Vegetation		
5.				Dominance Test is >:		
6.				Prevalence Index is s	3.0 ¹	
7				Morphological Adapta data in Remarks of		
8		-		Y Problematic Hydroph	vtic Vegetation ¹ (I	Explain)
1	0.997	= Total Co	ver	¹ Indicators of hydric soil a be present, unless disturb	nd wetland hydro	logy must
2		= Total Co		Hydrophytic		
% Bare Ground in Herb Stratum % Cov	er of Biotic C	20 82		Magazation	<u>No</u>	<u><</u>
Remarks:						

I IS Army Come of Engineere

Arid West - Version 2.0



~ .

rofile Description: (Describe to the dept	h needed to document the indicator or confi	irm the absence	of indicators.)
Depth Matrix	Redox Features	-	Demode
inches) Color (moist) %	Color (moist) % Type ¹ Loc ²		CPC'T DIG
ype: C=Concentration, D=Depletion, RM	Reduced Matrix, CS=Covered or Coated Sand	Grains. ² Loc	ation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Addric Soil Indicators: (Applicable to all 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)	LRRs, unless otherwise noted.) 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)		fuck (A9) (LRR C) fuck (A9) (LRR B) ed Vertic (F18) arent Material (TF2) (Explain in Remarks) of hydrophytic vegetation and hydrology must be present, isturbed or problematic.
sandy Gleyed Math (34) estrictive Layer (if present): Type: Depth (inches):		Hydric Soil	Present? Yes No
Remarks:			Land States and Land
YDROLOGY			
etland Hydrology Indicators:			
rimary Indicators (minimum of one require	d; check all that apply)		ndary Indicators (2 or more required)
Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)		Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)

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 Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) 	Crayfish Burrows (C8)
Water Table Present? Yes No	Depth (inches): Depth (inches): Depth (inches): Depth (inches): itoring well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Remarks:		



~

WETLAND DETERMINA	TION DATA FORM – Arid West Region D2
Project/Site: E. LLONESE	_ City/County: SAN BERNARDINO Co. Sampling Date: 3 4/14
Applicant/Owner: RICHARD LYONS	State: CA Sampling Point: 019
Investigator(s): MALNEY / LASHLY	Section, Township, Range: S24 #T12N RUE
Landform (hillslope, terrace, etc.): FUT PLANE CTLE	_ Local relief (concave, convex, none): Put - NoNC Slope (%):
Subregion (LRR): INTERIOR DEGERT (D) Lat:	35.1198 Long: 110.29849 Datum: NAD83
Soil Map Unit Name: MOJAVE DESERT NEER	NWI classification: LZJBP
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
Are Vegetation, SoilP, or HydrologyN significant	tly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation N, Soil N, or Hydrology N naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	ng sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	VATERS
Remarks:		and the second second	Contract Contract Contract
		ATT whether the state of the	5.191/H

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator	Dominance Test worksheet:	
Free Stratum (Plot size:)	Harrison and the second second			Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
<u>.</u>				Total Number of Dominant	
				Species Across All Strata:	(B)
h		= Total Co	Month and a second second	Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size:)		~	NL(FAC)	Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	
 k				OBL species x 1 =	-
* L				FACW species x 2 =	-
				FAC species x 3 =	
APPEND STORE	10			FACU species x 4 =	
Herb Stratum (Plot size:)			131 million	UPL species x 5 =	
				Column Totals: (A)	(B)
L				Prevalence Index = B/A =	-
l				Hydrophytic Vegetation Indicators:	
i				Dominance Test is >50%	
l				Prevalence Index is ≤3.01	
·				 Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet) 	ing
l				Problematic Hydrophytic Vegetation ¹ (Explai	n)
Voody Vine Stratum (Plot size:)	_0_	= Total Co	ver		
, .			C 1 1	¹ Indicators of hydric soil and wetland hydrology n	nust
•				be present, unless disturbed or problematic.	
		= Total Co	ver	Hydrophytic	
% Bare Ground in Herb Stratum % Cove		ALCORD COST O	3001	Vegetation Present? Yes <u>No ×</u>	

US Army Corps of Engineers

Arid West - Version 2.0



Texture Remarks RACKED PLATES SILTY LLAY ME MATERIAL UNCONSOLIDATED ROCKY
ME MATERIAL UNCONSOLIDATED
коскт
. ² Location: PL=Pore Lining, M=Matrix.
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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
ydric Soil Present? Yes 🔀 No _

HYDROLOGY

Wetland Hydrology Indicators:	Osta III.	
Primary Indicators (minimum of one required; c	heck all that apply)	Secondary Indicators (2 or more required)
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) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livie Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Field Observations: Surface Water Present? Yes No. Water Table Present? Yes No. Saturation Present? Yes No. (includes capillary fringe) Yes No.	X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	tions), if available:
Remarks:		

LIS Army Corps of Engineers

Arid West - Version 2.0



WETLAND DETERMINAT	ON DATA FORM – Arid West Region D.3
Project/Site: E. (RONESE	City/County: GAN BERNARDINO Sampling Date: 3/12/14
Applicant/Owner: Quality Lions	State: CA Sampling Point: 020
Investigator(s): MAGNEY LASHLY	Section, Township, Range: 524 T12 N RUE
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): <u>LON CAVE</u> Slope (%): <u>O</u>
Subregion (LRR): INTERIOR DESERT (D) Lat:	5.11194 Long: 116.29877 Datum: NAD 53
Soil Map Unit Name: MOSAVE DESELT AREA (CAGAS	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🔨 No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes <u>></u> No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (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	Is the Sampled Area	WA	TERS
Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	within a Wetland?	Yes	No <u>_×</u>
Remarks: Small Swall	Dominated By	ANNUALS		1.25 - 2.3 - 1

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Dominant Species?	Status	Dominance Test works Number of Dominant Sp That Are OBL, FACW, or		2_ (A)
2				Total Number of Domina Species Across All Strat		(B)
4		= Total Co		Percent of Dominant Spe That Are OBL, FACW, or		(A/B)
1. ATRIPLEX TORREY:	5	N	FAC	Prevalence Index work	sheet:	
2				Total % Cover of:	Multiply	by:
3				OBL species	x 1 =	
4				FACW species	x 2 =	
5				FAC species	x 3 =	1.1
	5	= Total Co	ver	FACU species	x 4 =	
Herb Stratum (Plot size:)		H. C.	1020	UPL species	x 5 =	
1. AMSINCE DESSERATE	40	4	NL	Column Totals:	(A)	(B)
2. SUSIMBRIUM	15		+	Contraction of the second		
3. MALALOTHELY GLABATA	3		+	Prevalence Index	in some state of the second seco	
4. Lamissonia	2		-+-	Hydrophytic Vegetation		
5				Dominance Test is >		
6				Prevalence Index is		
7				Morphological Adap data in Remarks	tations ¹ (Provide s or on a separate s	upporting heet)
8	- <u></u>			Problematic Hydrop	hytic Vegetation ¹ (I	Explain)
Woody Vine Stratum (Plot size:)	0	= Total Co	ver			
1				¹ Indicators of hydric soil be present, unless distur		
2		= Total Co		Hydrophytic Vegetation Present? Yes	No_Y	<
Remarks: Simil State of Annu	415-4	Suleon	~>~>	by A. TORREY	(FAC)	

US Army Corps of Engineers

 $Y: DMEC \ Jobs \ Lyons \ We than \ Delineation \ Ve than \ Delineation \ - \ FINAL \ Lyons \ We than \ Delineation \ Point \ Scheme \ Sc$



Depth <u>Matrix</u> (inches) Color (moist) %	Color (moist) % Type _	Loc ² Texture	Remarks
	AS PREVIOUS		
<u>2 fr Doel</u>	NO ROCKS		-
	Reduced Matrix, CS=Covered or Coated S		Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all	and the second		ors for Problematic Hydric Soils ³ :
_ Histosol (A1)	Sandy Redox (S5)		m Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)		m Muck (A10) (LRR B) Juced Vertic (F18)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)		Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F2)		er (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		fer hunter and and and
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicate	ors of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		nd hydrology must be present,
Sandy Gleyed Matrix (S4)		unles	s disturbed or problematic.
Restrictive Layer (if present):			
Type:			~
Type: Depth (inches):		Hydric S	ioil Present? Yes <u> </u>
Type: Depth (inches): Remarks: SIMILAR TO I		Hydric S	ioil Present? Yes <u>X</u> No
Type: Depth (inches): Remarks: SIMILAR TO I		Hydric S	ioil Present? Yes <u>X</u> No
Type: Depth (inches): Remarks: SIMILAR TO I SIMILAR TO I YDROLOGY Wetland Hydrology Indicators:	POINT DIQ		
Type: Depth (inches): Remarks: SIMILAR TO I YDROLOGY YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required	POI PT Oいへ		condary Indicators (2 or more required)
Type: Depth (inches): Remarks: SIMILAR TO I YDROLOGY YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	c: check all that apply) Salt Crust (B11)		condary Indicators (2 or more required) Water Marks (B1) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	ל: check all that apply) Salt Crust (B11) Biotic Crust (B12)		condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	ל: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)		condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Type: Depth (inches): Remarks: SIMILAR TD I YDROLOGY YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	d: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Se	condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (inches): Remarks: SIMILAR TD I YDROLOGY YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	d: check all that apply) Salt Crust (B11) Sit Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	ל <u>י check all that apply)</u> Salt Crust (B11)Salt Crust (B12)Aquatic Invertebrates (B13)Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres along LivPresence of Reduced Iron (C4)	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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)	d: check all that apply) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B	d: check all that apply)	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TO S YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Water-Stained Leaves (B9)	d: check all that apply) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Water-Stained Leaves (B9) Field Observations:	d: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks)	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	d: check all that apply)	Se	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Nater Table Present? Yes	d: check all that apply)	ing Roots (C3) ioils (C6)	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Nater Table Present? Yes Saturation Present? Yes	d: check all that apply)	ing Roots (C3) ioils (C6)	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	Cicheck all that apply)	ing Roots (C3)	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	Cicheck all that apply)	ing Roots (C3)	condary 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)
Type: Depth (inches): Remarks: SIMILAR TD S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	Cicheck all that apply)	ing Roots (C3)	condary 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)
Depth (inches):	Cicheck all that apply)	ing Roots (C3)	condary 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)

US Army Corps of Engineers



Project/Site: E. LROMESE	_ City/County: Saw BERNARDINO Lo. Sampling Date: 3/12/14
Applicant/Owner: RICHARD L-1025	State: CA Sampling Point: 021
Investigator(s): MAGNEY LASHIN	Section, Township, Range: 524 TIZN ROE
	Local relief (concave, convex, none): FLAT - NONE Slope (%): _O
Subregion (LRR): 1++ ERIO & Deseen (D) Lat:	37.11141 Long: 110.29680 Datum: NAD 93
Soil Map Unit Name: MOSANE DESCET AREA (CAL)	95) NWI classification: PEMF
Are climatic / hydrologic conditions on the site typical for this time of	I year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significar	
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site man showi	ng sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>×</u>	No
Remarks:				

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2	_	_		Total Number of Dominant Species Across All Strata: (B)
4		= Total Co	anan an	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1. ATRIPLEX TORREYI	20	4	FAL	Prevalence Index worksheet:
2. TAMARIX RAMOSISSIMA	5	2	(FAC)	Total % Cover of:Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x3 =
Herb Stratum (Plot size: 10~)	25	= Total Co	wer	FACU species x 4 =
1. Schick Mus	3	5		UPL species x 5 =
2. AMSIJUKIA TESSILATA				Column Totals: (A) (B)
			*	Prevalence Index = B/A = 3
- make in the second seco				Hydrophytic Vegetation Indicators:
4				X Dominance Test is >50%
5				× Prevalence Index is ≤3.0 ¹
6				Morphological Adaptations ¹ (Provide supporting
7				data in Remarks or on a separate sheet)
8		= Total Co		Y Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		Total CC	WG1	
1	_			¹ Indicators of hydric soil and wetland hydrology must
2				be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum <u>70</u> % Co		_= Total Co rust		Hydrophytic Vegetation Present? Yes <u>No</u> No
Remarks:		1201215		Conservation Service 20 November 1
IS Army Coros of Engineers				Arid West - Version 2.0



Sampling Point: 021 D4 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Color (moist) % Type Loc² Texture Remarks Color (moist) % (inches) SILTY CLAY 0-14 1042 5-2 FLUFFY_ LLA-1 1040 4-4 -30" ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Indicators for Problematic Hydric Soils3: Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) ____ 1 cm Muck (A9) (LRR C) ___ Sandy Redox (S5) Histosol (A1) 2 cm Muck (A10) (LRR B) Stripped Matrix (S6) Histic Epipedon (A2) Reduced Vertic (F18) Loamy Mucky Mineral (F1) Black Histic (A3) Red Parent Material (TF2) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) χ Other (Explain in Remarks) ____ Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Redox Dark Surface (F6) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) ³Indicators of hydrophytic vegetation and Redox Depressions (F8) Thick Dark Surface (A12) wetland hydrology must be present, Vernal Pools (F9) Sandy Mucky Mineral (S1) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: No Hydric Soil Present? Yes Depth (inches): Remarks: same as for A 1 - high pH (presumed based on location) HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Water Marks (B1) (Riverine) Salt Crust (B11) Surface Water (A1) ____ Sediment Deposits (B2) (Riverine) Biotic Crust (B12) High Water Table (A2) ____ Drift Deposits (B3) (Riverine) Aquatic Invertebrates (B13) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) __ Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Crayfish Burrows (C8) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) X Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Shallow Aquitard (D3) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: No ____ Depth (inches): _ Surface Water Present? Yes Yes _____ No ___ Depth (inches): _ Water Table Present? Wetland Hydrology Present? Yes X No Yes _____ No ____ Depth (inches): _ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

US Army Corps of Engineers



WETLAND DETERMINA	TION DATA FORM – Arid West Region
Project/Site: E. LONESE	City/County: SAN BERNARDIND Sampling Date: 5 12/14
Applicant/Owner: RICHARD LYONS	State: CA Sampling Point: 024
Investigator(s): MALNEN LASILY	Section, Township, Range: S25 T12~ RUE
Landform (hillslope, terrace, etc.): TLAMA COLE	_ Local relief (concave, convex, none): SLIGHT (NULINE Slope (%): 3
Subregion (LRR): NTERIOR DESERT Lat:	35.10.551 Long: 116.24710 Datum: NA563
Soil Map Unit Name: MOJANE DESERT AREA (C	NWI classification: NVI Classification:
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes $\underline{\lambda}$ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Normal Circumstances" present? Yes <u><</u> No
Are Vegetation, Soil, or Hydrology naturally ;	problematic? (If needed, explain any answers in Remarks.)
A	

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

Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present?	Yes Yes Yes	No	× ×	Is the Sampled Area within a Wetland?	Yes_	No	
CENTRAL STREET, STREET				prosofis ac	cting P	HEEATOPHUTE &	Ł
TAKING ADV. OF Pee	KIMITY .	-0 AC	SONE OH	(w)			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1) 2	Absolute <u>% Cover</u>		nt Indicator ? Status	Dominance Test workshee Number of Dominant Specie That Are OBL, FACW, or FA	s I	_ (A)
23	$=\pm$	_		Total Number of Dominant Species Across All Strata:	((B)
4		= Total C	Cover	Percent of Dominant Species That Are OBL, FACW, or FA		(A/B)
1. PROSOPIS MLANDULOSA	UO	ч	(fac)	Prevalence Index workshe	et:	
2. ATRIPLEY CANLISSENGE	10	2	(FAC)	Total % Cover of:	Multiply by:	_
3			The second s	OBL species	x 1 =	
4.				FACW species	x 2 =	
5.				FAC species	x 3 =	_
	50	= Total C	over	FACU species	x 4 =	
Herb Stratum (Plot size: 10 M)				UPL species	x 5 =	
1. ABRONIA	5_		NL	Column Totals:		
2. IRYPANNIKA LONK LEAF	5					
3. AMSINCKIO	5	-		Prevalence Index = B/	200 million 100	
4. EREMALUE	5	4		Hydrophytic Vegetation Inc		
5				Dominance Test is >50%		
6				Prevalence Index is ≤3.0		
7			_	Morphological Adaptatio data in Remarks or o	ns' (Provide supp	orting
8				a served the served of the served of the		ALC: STORE
Woody Vine Stratum (Plot size:)	-20	= Total C	over	Problematic Hydrophytic	vegetation (Exp	iain)
1				¹ Indicators of hydric soil and be present, unless disturbed		y must
2	$\overline{}$	= Total C	over	Hydrophytic		
% Bare Ground in Herb Stratum % 0	Cover of Biotic C	rust	>	Vegetation Present? Yes X	No	
Remarks:						

LIS Army Come of Engineere



Depth Mat	ribe to the dept	h needed to docum	ent the inc	dicator o	or confirm	he absence	of indicators.)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rix		Features			-	D
inches) Color (mois	<u>st) %</u>	Color (moist)		Type'	Loc ²	Texture	Remarks
36"	<u></u>	1. 1. <u>.</u> 1				SAND	UNCONSOLIDATOD
	-						-
Type: C=Concentration, D lydric Soil Indicators: (A	=Depletion, RM=	Reduced Matrix, CS	=Covered	or Coate	d Sand Gra	ins. 'Lo	cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4), Stratified Layers (A5) (I 1 cm Muck (A9) (LRR I Depleted Below Dark S Thick Dark Surface (A1 Sandy Mucky Mineral (Sandy Gleyed Matrix (5	LRR C) D) Surface (A11) (2) S1)	 Sandy Redo Stripped Ma Loamy Mucl Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depne Vernal Pools 	trix (S6) cy Mineral (ed Matrix (atrix (F3) Surface (F surface (F8) essions (F8)	F2) 6) (F7)		2 cm / Reduc Red P Other ³ Indicators wetland	Muck (A9) (LRR C) Muck (A10) (LRR B) and Vertic (F18) arent Material (TF2) (Explain in Remarks) of hydrophytic vegetation and hydrology must be present, fisturbed or problematic.
Lestrictive Layer (if prese							
Type:							(a) (a)
Depth (inches):		500 M 200				Hydric Sol	Present? Yes No $\underline{\times}$
Remarks:							
YDROLOGY							
Maile and Mandacha and Indian		n in land areas					
Vetland Hydrology Indica	m of one required						ndary Indicators (2 or more required)
		Salt Crust					Vater Marks (B1) (Riverine)
rimary Indicators (minimum Surface Water (A1)							
rimary Indicators (minimu		Biotic Crus					Sediment Deposits (B2) (Riverine)
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		Aquatic Inv	ertebrates				Drift Deposits (B3) (Riverine)
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nor	nriverine)	Aquatic Inv Hydrogen	vertebrates Sulfide Od	or (C1)		 	Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nor Sediment Deposits (B2	nriverine) 2) (Nonriverine)	Aquatic Inv Hydrogen Oxidized F	vertebrates Sulfide Od thizosphere	or (C1) es along	Living Root	 (s (C3) (Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2)
rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nor Sediment Deposits (B2) Drift Deposits (B3) (Nor	nriverine) 2) (Nonriverine) nriverine)	Aquatic Inv Hydrogen Oxidized F	vertebrates Sulfide Odi thizosphere of Reduced	or (C1) es along t Iron (C4	1)		Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nor Sediment Deposits (B2	nriverine) 2) (Nonriverine) nriverine) 6)	Aquatic Inv Aquatic Inv Hydrogen Oxidized F Presence Recent Iro	vertebrates Sulfide Odi thizosphere of Reduced n Reductio	or (C1) es along d Iron (C4 n in Tille		 s (C3) 	Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2)

 Surface Water Present?
 Yes _____ No _X__ Depth (inches): ______

 Water Table Present?
 Yes _____ No _X__ Depth (inches): _______

 Saturation Present?
 Yes _____ No _X__ Depth (inches): _______

 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No _X___

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

 Remarks:

LIC Amus Come of Engineers



WETLAND DETERMIN	ATION DATA FORM - Ar	id West Region E2
Project/Site: E. (RONESE	City/County: SAN BE	
Applicant/Owner: Richness Lyons		State: CA Sampling Point: 025
Investigator(s): MALNEY LASILY	Section, Township, Range:	S25 TIZN RIDE
Landform (hillslope, terrace, etc.): [Lar PLATA DOTTOM	Local relief (concave, conv	ex, none): FLAT · NONE Slope (%):
Subregion (LRR): INTERIOR DESERT (D) Lat	1 35,10552 Lo	ng: 110, 24709 Datum: NAD 53
Soil Map Unit Name: MOSAVE DESCET AREA (U		NWI classification:
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes <u>X</u> No	
Are Vegetation N, Soil r, or Hydrology r signific	antly disturbed? Are "Norr	nal Circumstances" present? Yes K No
Are Vegetation, Soil, or Hydrology natural		l, explain any answers in Remarks.)
		liene transacte important features ato

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>/</u> No Yes <u>/</u> No Yes <u>/</u> No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: IN MAIN FLOOD PROSORIS	CHANNEL, LLEAR	OHW BANK	to South LINED w

VEGETATION – Use scientific names of plants.

1 2 3 4				Total Number of Dominant
4				Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: 0 ~)		= Total Co	1052.0	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. PARIPHEN CANESICALE	10	4	(FAC)	Prevalence Index worksheet:
2			-	Total % Cover of: Multiply by:
3.				OBL species x 1 =
4.				FACW species x 2 =
5.				FAC species x 3 =
0.02.5	5	= Total Co	ver	FACU species x 4 =
Herb Stratum (Plot size: 10m)				UPL species x 5 =
1. AMUNCKIN	1		NL	Column Totals: (A) (B)
2. PELIDIARNA	1		-	
3. SUSIMBRIUM			_	Prevalence Index = B/A =
4. SCHISMUS	1		-	Hydrophytic Vegetation Indicators:
5			_	Dominance Test is >50%
6.		adam in		Prevalence Index is ≤3.01
7				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation' (Explain)
	LI	= Total Co	ver	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)				here and an an an an an and a second
1				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				
% Bare Ground in Herb Stratum 0 0 % Cow		= Total Co rustO		Hydrophytic Vegetation Present? Yes <u>No</u> No
Remarks:				
Remarks: TOO SPARSE - WASH	BOTT		2 1/24	TERS

US Army Corps of Engineers



epth Matrix	eded to document the Redox Featur					
		Type	_Loc ²	Texture	Remarks	
1/4		1977 - Land		SILTY	LEACHED WAY	
\@''				SUPCON	GUARTED SAND	
Type: C=Concentration, D=Depletion, RM=Redu tydric Soil Indicators: (Applicable to all LRRs Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)	unless otherwise no Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Minel Loamy Gleyed Matrix Depleted Matrix (F3	nted.) ral (F1) ix (F2))	d Sand Gr	Indicators 1 cm / 2 cm / Reduc Red P	cation: PL=Pore Lining, M=Matrix. a for Problematic Hydric Solls ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18) Parent Material (TF2) (Explain in Remarks)	
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if present):						
Туре:					Present? Yes 🗶 No 🔄	
Depth (inches):				Hydric Sol	I Present? Yes <u>X</u> No	

Wetland Hydrology Indicators: Primary Indicators (minimum of one required;)	check all that apply)	Secondary Indicators (2 or more required)
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) Gitter Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Water Table Present? Yes No Saturation Present? Yes No includes capillary fringe)	b ★ Depth (inches): b ★ Depth (inches): b ★ Depth (inches):	Wetland Hydrology Present? Yes <u>No</u> No
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, previous inspect	ions), if available:
Remarks:		

LIC Army Corps of Engineers



WETLAND	DETERMINATION DATA FORM – Arid West Region E3
Project/Site: E. CRONESE	City/County: SAN BEENALDING Co. Sampling Date: 3/12/14
Applicant/Owner: RICHARD LYONS	State: (A Sampling Point: 026
Investigator(s): MALNEY LASHLY	Section, Township, Range: 525 TI2N RUE
Landform (hillslope, terrace, etc.): FLAT PLAT	TA BUTTOM Local relief (concave, convex, none): NONE FUT Slope (%): 0
Subregion (LRR): INTERIOR DESERT (D)	Lat: 35.10577 Long: 116.29697 Datum: NAD 63
Soil Map Unit Name: MOTAVE DESCOT AS	REA (CA 695) NWI classification: NONE
Are climatic / hydrologic conditions on the site typica	al for this time of year? Yes <u>×</u> No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology _	
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 Is the Sampled Area
	No within a Wetland? Yes X No
	No No No No
Remarks:	

VEGETATION - Use scientific names of plants.

Sapling/Shrub Stratum (Plot size: 10m) 5 1. [Arral X & Amobilishma 5 2	= Total Cover	That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: (B) Percent of Dominant Species (B) Percent of Dominant Species (A/B) Provalence Index worksheet: (A/B) Total % Cover of: Multiply by: OBL species x 1 = FACW species x 3 = FAC species x 3 = FACU species x 4 = UPL species x 5 =
3.	= Total Cover	Species Across All Strata: (B) Percent of Dominant Species (A/B) That Are OBL, FACW, or FAC: (O.O
4.	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:(Q.Q(A/B) Provalence Index worksheet:Total % Cover of:Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 =
Sapling/Shrub Stratum (Plot size: 10m) 0 1. TAMARIX RAMOSISSIMA 5 2	(NL(FA)	That Are OBL, FACW, or FAC: (O.O. (A/B) Prevalence Index worksheet:
1. TAMARIX RAMOSISSIMA 5 2.	= Total Cover	Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 =
2	= Total Cover	Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 =
3	= Total Cover	FACW species x 2 = FAC species x 3 = FACU species x 4 =
4	= Total Cover	FACW species x 2 = FAC species x 3 = FACU species x 4 =
5	= Total Cover	FAC species x 3 = FACU species x 4 =
Herb Stratum (Plot size: 10 m) 5 1. AMSINCKIA TESSELATA 2 2. PELEOLARMA 2 3. SLUISMUS 2 4. SUSINBEUM 7 5. MALALOTRIX 2 6.		FACU species x 4 =
1. AMSINCKIA TESSELATA 2 2. PEGOLARMA 2 3. SLUISMUS 2 4. SUSINBEUM 7 5. MALALOTRIX 2 6.		Definition of the second secon
2. PEGOLARYA 2 3. SLUISMUS 2 4. SUSINBRIUM 7 5. MALALOYRIX 2 6		AU =
3. SUNSMUS 2 4. SUSINBEUM 7 5. MALALOYRIX 2 6		Column Totals: (A) (B)
4. Susinblum 7 5. Malacotrix 2 6		
5. Malacotrix 2		Prevalence Index .= B/A =
6		Hydrophytic Vegetation Indicators:
		▲ Dominance Test is >50%
7		Prevalence Index is ≤3.0 ¹
		Morphological Adaptations ¹ (Provide supporting
8		data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size:)	_ = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
1		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum % Cover of Biotic	= Total Cover	Hydrophytic Vegetation Present? Yes No
		Present? Yes No
Remarks:		

US Army Corps of Engineers



ŗ.

-		-

OIL				and a la director		the checase	Sampling Point: 026 E
	iption: (Describe to	o the depth			or contin	n the absence	of indicators.)
inches)	Color (moist)	%		x Features % Type	Loc ²	Texture	Remarks
0 - 1/u	CONCI (INDIGI)					CRALLED	PLATES SILTY CLAM
	1 - 10 3 - 7				1		CLAY RICH IN BIOTITE
12-16	10423.3					1/	11
17-15	10 483-2						LESS BIOTIFÉ
ydric Soil Ir Histosol (Histic Epi Black His Hydrogen Stratified 1 cm Muc Depleted	pedon (A2)	ble to all LR	Rs, unless othe Sandy Red Stripped M Loamy Mux Loamy Gle Depleted N Redox Dan Depleted D	orwise noted.) lox (S5) latrix (S6) cky Mineral (F1) yed Matrix (F2)	led Sand G	Indicators 1 cm I 2 cm I Reduc Red P XOther	Acation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils³: Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18) Parent Material (TF2) (Explain in Remarks) s of hydrophytic vegetation and
-	ucky Mineral (S1) eyed Matrix (S4)		Vernal Poo	ls (F9)			i hydrology must be present, V disturbed or problematic.
estrictive L	ayer (if present):						
Type: Depth (incl	hae)-		-			Hydric Soi	il Present? Yes 📈 No 🔜
Remarks: H		rasking	hydric s	soil indicat	ors - p	H 8.58	on 24 June 2014
YDROLOG	GY						
	Irology Indicators:						
rimary Indica	ators (minimum of or	ne required;					ondary Indicators (2 or more required)
	Water (A1)		Salt Crus	Contraction of the second s			Water Marks (B1) (Riverine)
High Wat Saturatio	ter Table (A2) In (A3)		Biotic Cru Aquatic Ir	ust (B12) nvertebrates (B13)			Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)

Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2 Drift Deposits (B3) (Nor Surface Soil Cracks (Bi Inundation Visible on A Water-Stained Leaves) (Nonriverine) nriverine) 6) erial Imagery (B		Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lix Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Soils (C6)	Crayfish Burro	erns (B10) Vater Table (C2) ows (C8) sible on Aerial Imag ard (D3)	iery (C9)
Field Observations:			22 - 2015-122 - 20				
Surface Water Present?	Yes	No	_ Depth (inches):	4			
Water Table Present?	Yes	No	_ Depth (inches):	1		V	
Saturation Present? (includes capillary fringe)	Yes				drology Present?	Yes No	·
Describe Recorded Data (s	tream gauge, m	onitoring	well, aerial photos, previous inspe	ections), if availa	ble:		
Remarks:							

US Army Corps of Engineers



0.	WETLAND DETERMINAT	ION DATA FORM -	Arid West Region	F1
Project/Site: E LEDNESE	LAKE	City/County: SAN B	cenaesino Lo.	Sampling Date: 13.14
Applicant/Owner: Lions			State:	Sampling Point: 50 -
Investigator(s): Mannen	LASHLM	Section, Township, Range	e: 525 T12	N RGE
Landform (hillslope, terrace, etc.):	LOWER POLE OF BAN	Local relief (concave, cor	nvex, none): SMALL	SLOPE Slope (%): 4
Subregion (LRR): INTER 104	DESERT (D) Lat: 1	5.10572 L	ong: -116.24	562 Datum:
Soil Map Unit Name: Mosnve	DESENT AREA (LA)	(95)	NWI classific	ation:
Are climatic / hydrologic conditions	on the site typical for this time of y	ear? Yes _x No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrology significantl	y disturbed? Are "No	ormal Circumstances" p	oresent? Yes <u>×</u> No
Are Vegetation, Soil	, or Hydrology naturally p	roblematic? (If need	ed, explain any answe	rs in Remarks.)

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

Hydrophytic Vegetation Present?	Yes No	Is the Sampled Area	\sim	ATERS	
Hydric Soil Present? Wetland Hydrology Present?	Yes <u>No ×</u> Yes <u>×</u> No	within a Wetland?	Yes	No	
Remarks: BASE OF BANK	ON FLOOD	CHANNEL		- 1 - 1	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
23				Total Number of Dominant Species Across All Strata: (B)
4		= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. ATRIPLEX POLYGARIA	10	4	FACU	Prevalence Index worksheet:
2. PROSOPIS GLANDULOSA	40	Ч	(FAC)	Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species 40 x3= 120
		= Total Co	ver	FACU species 10 x4= 40
Herb Stratum (Plot size: 5 A				UPL species x 5 =
1. AMSINCKIA TESSOLATTA	2-		NL	Column Totals: 50 (A) 160 (B)
2. PELTECADANA				
3. ELEMALCHE EXILIS	10		-	Prevalence Index = B/A =3
4				Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7	_			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8		and the second second		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		= Total Co	ver	
1				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum % Cove		= Total Co	151	Hydrophytic Vegetation Present? Yes No
Remarks: PRUSOPIG ON BANK EXTE	~01~4	1~10	MAIN	FLOOD CHANNEL
			8 19	95. A

LIS Army Corps of Engineers

Add Mont Manies 2.0



	A CONTRACTOR OF CONTRACTOR OF CONTRACTOR	to the dep		x Feature:		or comm	m the absence of indicators.)
Depth inches) D -1 2-6 7-20	Matrix Color (moist) ।৩৭৫ ৭ 3		Color (moist)			_Loc ²	Texture Remarks SMDY SILT UNCONSOLIDAT CLAYEY LOAMY SAND LOAMY SAND UNCONS.
Hydric Soil I Histosol Histic Ep Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G	ndicators: (Applic (A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) (LRR 0 ck (A9) (LRR D) Below Dark Surfac rk Surface (A12) ucky Mineral (S1) leyed Matrix (S4)	able to all C)	Reduced Matrix, CS LRRs, unless other Sandy Reduced Stripped Ma Loamy Muc Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Vernal Pool	rwise note ox (S5) atrix (S6) ky Minera yed Matrix atrix (F3) c Surface (ark Surfac ressions (I	ed.) (F1) (F2) (F6) e (F7)	d Sand Gr	Grains. ² Location: PL=Pore Lining, M=Matrix. 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.
Type: Depth (inc	ayer (if present):		_				Hydric Soil Present? Yes No
Remarks:							

Primary Indicators (minimum of one required; ch	neck all that apply)	Secondary Indicators (2 or more required)
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 Livii Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Water Table Present? Yes No	➤ Depth (inches): ⊥ Depth (inches): ⊥ Depth (inches):	Wetland Hydrology Present? Yes <u></u> No
Describe Recorded Data (stream gauge, monito Remarks:	rring well, aerial photos, previous inspec	tions), if available:

.....



WETLAND DETERMINATION	ON DATA FORM – Arid West Region
Project/Site: C. CRONESE LIKE	City/County: SAN BEENARDING CO. Sampling Date: 1/31/14
Applicant/Owner: 10000,	State: CA Sampling Point: 51
Investigator(s): MALNAY / LASHLY	Section, Township, Range: <u>S25 T12 N RUE</u>
Landform (hillslope, terrace, etc.): SAND DUNE	Local relief (concave, convex, none): HILSIDE Slope (%): 10
Subregion (LRR): MTEQUE DESERT (D) Lat: 3	5.10 502 Long: 116.24572 Datum: NAD 23
Soil Map Unit Name: MoSAVE DESCAT AREA (LA 695)	NWI classification: NONE - PEML
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes No X (If no, explain in Remarks.) ADTALENT
Are Vegetation, Soil, or Hydrology significantly	이렇는 그 것 안 가슴, 모르 그 그 그 것같아. 걸었는 것 같은 것 같은 것 같은 것 것 않고, 것 봐야 할 것 가지 않는 것 않는 것 모르는 모르 그 가 가 가 다.
Are Vegetation, Soil, or Hydrology naturally pro	blematic? (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_ Is the Sampled Area × Hydric Soil Present? Yes No_ Yes ____ No ____ within a Wetland? × No_ Wetland Hydrology Present? Yes

Remarks:	50	BANK	ABOVE	OHWM 7	LLEAR	VEY	SOIL	CHANGE
		191						

VEGETATION – Use scientific names of plants.

Remarks:

Tree Stratum (Plot size:)		Dominant Species?	Status	Dominance Test workst Number of Dominant Spe	cies	
1				That Are OBL, FACW, or	FAC:	(A)
2				Total Number of Dominar Species Across All Strata		(B)
4	×	= Total Co	ver	Percent of Dominant Spe That Are OBL, FACW, or		(A/B)
1. LAREA TRIDENTATA	20	ч	NL	Prevalence Index works	heet:	
2. ATRIPLEX POLYCARIA	20	ч	FACU	Total % Cover of:	Multiply by:	_
3.			-	OBL species	x 1 =	1.1
4.		-		FACW species		
5				FAC species		
v	40	= Total Co	ver	FACU species		
Herb Stratum (Plot size:)	-			UPL species		
1				Column Totals:	(A)	(B)
2		-				
3				Prevalence Index =	= B/A =	-
4				Hydrophytic Vegetation		
5.				Dominance Test is >		
6.				Prevalence Index is :		
7.				Morphological Adapt	ations ¹ (Provide suppo	rting
8					or on a separate sheet)	
51	-	= Total Co	ver	Problematic Hydroph	lytic vegetation (Expla	iin)
Woody Vine Stratum (Plot size:)				1		12220
1				¹ Indicators of hydric soil a be present, unless disturt		must
2						
		= Total Co	ver	Hydrophytic Vegetation	1.2.2	
% Bare Ground in Herb Stratum % Co	wer of Biotic C	rust		Present? Yes	No	
Remarks:						

LIS Army Come of Engineers



rofile Description: (Describe to the dep			50 F
Depth Matrix inches) Color (moist) %	Redox Features Color (moist) % Type ¹	Loc ² Texture	Remarks
			UNCONSOLIDATED
- 18			
when C=Concentration D=Depletion RM	=Reduced Matrix, CS=Covered or Coated S	Sand Grains. ² Loc	ation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)		for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm M	luck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm N	luck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduc	ed Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		arent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
 Depleted Below Dark Surface (A11) 	Depleted Dark Surface (F7)		
_ Thick Dark Surface (A12)	Redox Depressions (F8)		of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		hydrology must be present,
_ Sandy Gleyed Matrix (S4)	Sector On St	unless d	isturbed or problematic.
estrictive Layer (if present):			+
estrictive Layer (if present): Type:			*,
Type: Depth (inches):		Hydric Soil	Present? Yes No
Type: Depth (inches): Remarks:		Hydric Soil	Present? Yes No
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators:			
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators:	d; check all that apply)	Secor	ndary Indicators (2 or more required)
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators:	d; check all that apply)	Secor	
Type: Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one require		<u>Seco</u> r S	Idary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	Salt Crust (B11)	<u>Seco</u> r S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12)	<u>Seco</u> r V S D	Idary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	<u>Seco</u> r V S D D	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rrift Deposits (B3) (Riverine) rrainage Patterns (B10)
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	<u>Seco</u> r W S D D D D D	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rrift Deposits (B3) (Riverine) rrainage Patterns (B10)
Type: Depth (inches): Remarks: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)	Secon V S D D D D D D D D D	adary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irift Deposits (B3) (Riverine) Irainage Patterns (B10) Iry-Season Water Table (C2) Irayfish Burrows (C8)
Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required 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)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secon V S D D D D D D D D D D D D D D S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rrift Deposits (B3) (Riverine) rrainage Patterns (B10) rry-Season Water Table (C2)
Type: Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (E	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 37) Thin Muck Surface (C7)	Secon V S D D D D D D D D D D D D D D D S	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irrift Deposits (B3) (Riverine) Irrainage Patterns (B10) Irry-Season Water Table (C2) Irrayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3)
Type: Depth (inches): temarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (E Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secon V S D D D D D D D D D D D D D D D S	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irrift Deposits (B3) (Riverine) Irrainage Patterns (B10) Irry-Season Water Table (C2) Irrayfish Burrows (C8) aturation Visible on Aerial Imagery (C
Type: Depth (inches): Temarks: TOROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required 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 (E Water-Stained Leaves (B9) Vetlad Observations:	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lix Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) 	Secon V S D D D D D D D D D D D D D D D S	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irrift Deposits (B3) (Riverine) Irrainage Patterns (B10) Irry-Season Water Table (C2) Irrayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3)
Type:	Salt Crust (B11) Solution Sol	Ving Roots (C3) C Soits (C6) S F	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irrift Deposits (B3) (Riverine) Irrainage Patterns (B10) Irry-Season Water Table (C2) Irrayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3)
Type: Depth (inches): temarks: /DROLOGY /etiand Hydrology Indicators: trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	Salt Crust (B11) Solution Sol	Ving Roots (C3) C Soits (C6) S F	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Indinage Patterns (B10) Iny-Season Water Table (C2) Irayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3) AC-Neutral Test (D5)
Type:	Salt Crust (B11) Solution Sol	ving Roots (C3) C Soits (C6) S F Wetland Hydrolog	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Irrift Deposits (B3) (Riverine) Irrainage Patterns (B10) Irry-Season Water Table (C2) Irrayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 37) Thin Muck Surface (C7) Other (Explain in Remarks) No \(\screwtcoloremath{{aligned}} Depth (inches): No \(\screwtcoloremath{{aligned}} Depth (inches): Depth (inch	ving Roots (C3) C Soits (C6) S F Wetland Hydrolog	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Indinage Patterns (B10) Iny-Season Water Table (C2) Irayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3) AC-Neutral Test (D5)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 37) Thin Muck Surface (C7) Other (Explain in Remarks) No \(\screwtcoloremath{{aligned}} Depth (inches): No \(\screwtcoloremath{{aligned}} Depth (inches): Depth (inch	ving Roots (C3) C Soits (C6) S F Wetland Hydrolog	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Indinage Patterns (B10) Iny-Season Water Table (C2) Irayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3) AC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 37) Thin Muck Surface (C7) Other (Explain in Remarks) No \(\screwtcoloremath{{aligned}} Depth (inches): No \(\screwtcoloremath{{aligned}} Depth (inches): Depth (inch	ving Roots (C3) C Soits (C6) S F Wetland Hydrolog	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Indinage Patterns (B10) Iny-Season Water Table (C2) Irayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3) AC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 37) Thin Muck Surface (C7) Other (Explain in Remarks) No \(\screwtcoloremath{{aligned}} Depth (inches): No \(\screwtcoloremath{{aligned}} Depth (inches): Depth (inch	ving Roots (C3) C Soits (C6) S F Wetland Hydrolog	Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) Indinage Patterns (B10) Iny-Season Water Table (C2) Irayfish Burrows (C8) aturation Visible on Aerial Imagery (C1 hallow Aquitard (D3) AC-Neutral Test (D5)

LIC Army Corne of Engineers



WETLAND DETERMINAT	TION DATA FORM – Arid West Region
Project/Site: E. CRONESE	City/County: SAN BERNARDING Co. Sampling Date: 3/12/14
Applicant/Owner: Provines Lyons	State: Sampling Point:Sampling
Investigator(s): MAGNEY LASHLY	Section, Township, Range: <u>525 TI2N R6E</u>
Landform (hillslope, terrace, etc.): SAND DUNE COLE OF	_ Local relief (concave, convex, none): <u>このべいて べ</u> Slope (%): <u></u>
Subregion (LRR): 12 TERIOR Deschi (D) Lat:	35.10409 Long: 116.29408 Datum: NAD83
	5) NWI classification:のんど
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	oroblematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Pres Hydric Soil Present? Wetland Hydrology Present?		Yes Yes Yes	No No	X	Is the Sampled A within a Wetland		Yes	_ No_	<u>×</u>
Remarks: UPS10P€	ABOVE	OHW	14	SMALL	SUALE	ofF	MAIN	FLOOD	CHANNEL

VEGETATION – Use scientific names of plants.

	Absolute	Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2.			Total Number of Dominant
3.			Species Across All Strata: (B)
4.			
Sapling/Shrub Stratum (Plot size: 10~)		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. ATRIPLEX LANGLENTE	15	Y NL	Prevalence Index worksheet:
			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 2 =
5		= Total Cover	FACU species x 3 =
Herb Stratum (Plot size: 10m)	_12	= Total Cover	
1. ABRONIA VILLOSA	15	NI	UPL species x 5 =
2. FREMOTHERA SS.		NL	Column Totals: (A) (B)
			Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators:
4		-9	Dominance Test is >50%
5			Prevalence Index is ≤3.0 ¹
6			Morphological Adaptations ¹ (Provide supporting
7			data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	_1+	= Total Cover	
1.			¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
2		= Total Cover	Hydrophytic
			Vegetetlen
% Bare Ground in Herb Stratum % Con	ver of Biotic Ci	rust	Present? Yes No X
Remarks:			

US Army Corns of Engineers



1

Profile Description: (Describe to the dept	h needed to document the indicator or c	onfirm the absence of indicators.)
Depth Matrix	Redox Features	
inches) Color (moist) %	Color (moist) % Type' L	.oc ² Texture Remarks
0-24		UNCONSOLIDATED SAND
	Deduced Metric CSeCoursed or Control S	and Grains. ² Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM= lydric Soil Indicators: (Applicable to all I	Reduced Matrix, CS=Covered or Coaled S	Indicators for Problematic Hydric Soils ³ :
		1 cm Muck (A9) (LRR C)
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10) (LRR B)
 Histic Epipedon (A2) 	Stripped Matrix (S6)	Reduced Vertic (F18)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Red Parent Material (TF2)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Other (Explain in Remarks)
_ Stratified Layers (A5) (LRR C)		_ Other (Explain in Kemarka)
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	 Depleted Dark Surface (F7) Bades Depressions (F8) 	³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Redox Depressions (F8) Vernal Pools (F9)	wetland hydrology must be present,
Sandy Mucky Mineral (S1)	_ vemai Pools (Pa)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes <u>No</u>
Depth (inches):		Hydric Soil Present? Yes <u>No</u> X
Depth (inches): Remarks: YDROLOGY		Hydric Soil Present? Yes <u>No</u> X
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators:	; check all that apply)	Hydric Soil Present? Yes No
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators:	; check all that apply) Salt Crust (B11)	
Depth (inches): Remarks: YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)		Secondary Indicators (2 or more required)
Depth (inches): Remarks: YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches): Remarks: YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drianage Patterns (B10)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So) Thin Muck Surface (C7)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S) 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) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 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) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Si) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 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) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)

LIS Army Come of Engineers



~ -

WETLAND DETERMINAT			$-\tau$
Project/Site: E. Leonese	City/County: San Beer	VARDINO LO.	Sampling Date: 3/12/14
Applicant/Owner: Richard Lawas		State:	Sampling Point: 029
Investigator(s): MALNEY LASHLY	Section, Township, Range: _	525 +12	N RGE
Landform (hillslope, terrace, etc.): EVAT PUNTA SWALL BOTTOM			
Subregion (LRR): INTERIOR DESEAT (D) Lat	35.10403 Long	116.2940	G Datum: NAD 6
Soil Map Unit Name: MOTAVE DESCRI NOCA (CA 60	15)	NWI classific	ation: Nort
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>×</u> No	(If no, explain in Re	emarks.)
Are Vegetation, SoilP, or Hydrology _J significantly	v disturbed? Are "Norma	al Circumstances" p	oresent? Yes 🗶 No 🔜
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed,	explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locati	ions, transects	, important features, etc

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No _X Yes No _X Yes No	Is the Sampled Area within a Wetland?	WATERS
Rémarks: which small	SUALE , baow	BANK LVL	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)		Dominant Indicato Species? Status	 Number of Dominant Species
1			
23			Total Number of Dominant
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 10~)	1.20		
1. ATRIPLEX CANESCENS			
2			Total % Cover of: Multiply by:
3			_ OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
20	10	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 10~)			UPL species x 5 =
1. PECTOCARNO SP.			
2. Schismus SP.		NL	
3			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting
8			data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size:)	_2	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
1			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum% Cow			Vegetation Present? Yes No
Remarks:			

US Army Corps of Engineers



Depth <u>Matrix</u> (inches) Color (moist) %	Redox Features Color (moist) % Type	Loc ² Texture Remarks
	Color (moist) % Type	SILTY CLAN CRACKED PLATE LANS
0-1/4		SILLE CHARLES ILLE CAR
Va - 24"		UNCONSOLIDATED SAND
Type: C=Concentration, D=Depletion, RM=		
Hydric Soil Indicators: (Applicable to all I	이 이렇게 잘 하는 것 같은 것 같은 것 같은 것 같은 것을 알려요. 말한 것이 같은 것이 같이 가지 않는 것이 같이 같이 가지?	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B) Reduced Vertic (F18)
Black Histic (A3)	Loamy Mucky Mineral (F1) Loamy Gleved Matrix (F2)	Red Parent Material (TF2)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)	Depleted Matrix (F2)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	- sous (explored in the second
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		1 (Berlin)
Depth (inches):		Hydric Soil Present? Yes No
	8	Hydric Soil Present? Yes No
Remarks:		Hydric Soil Present? Yes No
Remarks: YDROLOGY		Hydric Soil Present? Yes No
Remarks: YDROLOGY Wetland Hydrology Indicators:	; check all that apply)	Hydric Soil Present? Yes No
Remarks: YDROLOGY Wetland Hydrology Indicators:	I; check all that apply) Sait Crust (B11)	
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required		Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) — Water Marks (B1) (Riverine) — Sediment Deposits (B2) (Riverine)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Remarks: YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required 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	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Shallow Aquitard (D3)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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) Field Observations:	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Staturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Staturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Staturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 3 Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)



WETLAND DETERMINAT	ION DATA FORM - Aria	d West Regior	63
Project/Site: E. LEONES	City/County: Sav Brene	APINO Co.	Sampling Date: 3/12/14
Applicant/Owner: RICHARD LYONS		State: CA	Sampling Point: 030
Investigator(s): MAGNEN LASHLY	Section, Township, Range: _	525 T12	N RLEE
Landform (hillslope, terrace, etc.): FLAT PLAMA Swate BUTTOM	Local relief (concave, convex	, none): FLAT -	NONE Slope (%): 0
Subregion (LRR): INTERIOR DESCRIT (D) Lat: 3			
Soil Map Unit Name: MUTAVE DESERT AREA (CA645)			
Are climatic / hydrologic conditions on the site typical for this time of ye	aar? Yes 🔀 No 🔜	(If no, explain in F	Remarks.)
Are VegetationN_, SoilN_, or HydrologyN_ significantly	disturbed? Are "Norma	I Circumstances"	present? Yes 🔀 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed,	explain any answe	ers in Remarks.)
		28 B.CH 10 B.C. B.M.C. 1995	and a second

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No <u>×</u> No <u></u>	Is the Sampled Area within a Wetland?	A نے Yes	TERS NO_X
Remarks: WIN SMALL	SWALE	BELOW BAN	K LVL		

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)			Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
23			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. ATRIPIEX CANESLENS		- V NL	Prevalence Index worksheet:
2	10	· · · · · · · · · · · · · · · · · · ·	Total % Cover of:Multiply by:
3			OBL species x 1 =
4	21		FACW species x 2 =
5			FAC species x 3 =
Herb Stratum (Plot size: 10 ~)	10	= Total Cover	FACU species x 4 =
1. PECTOLORYA SP	5		UPL species x 5 =
2. CRYPTANTILA ANGUSTIFOLIA			Column Totals: (A) (B)
3. (HULLISMA SP.			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting
8.			data in Remarks or on a separate sheet)
		= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	397		
1			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Constant and Constant
% Bare Ground in Herb Stratum % Cove		= Total Cover	Hydrophytic Vegetation Present? Yes No X
Remarks:			

US Army Corps of Engineers



rofile Description: (Descr	ibe to the dept	h needed to document the indicator or	confirm the abso	nce of indicators.)
Depth <u>Matr</u> inches) Color (moist		Redox Features Color (moist) % Type' _	Loc ² Textur	eRemarks
54	IME	AS LAST (02	9)	
ype: C=Concentration, D= ydric Soil Indicators: (Ap Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LI 1 cm Muck (A9) (LRR D Depleted Below Dark Su	plicable to all I RR C)	Reduced Matrix, CS=Covered or Coated IRRs, unless otherwise noted.) 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)	Indica 1 2 R R	² Location: PL=Pore Lining, M=Matrix. ttors for Problematic Hydric Soils ³ : cm Muck (A9) (LRR C) cm Muck (A10) (LRR B) educed Vertic (F18) ed Parent Material (TF2) ther (Explain in Remarks)
 Depicted below bank of Thick Dark Surface (A12 Sandy Mucky Mineral (S Sandy Gleyed Matrix (S⁴)) 1)	Redox Depressions (F8) Vernal Pools (F9)	wet	ators of hydrophytic vegetation and land hydrology must be present, ess disturbed or problematic.
estrictive Layer (if preser	it):			
Туре:				X
Type: Depth (inches): Remarks:			Hydric	Soil Present? Yes <u>No </u>
Depth (inches): Remarks: YDROLOGY			Hydric	Soil Present? Yes <u>No X</u>
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat	ors:			
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat	ors:			Secondary Indicators (2 or more required)
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat	ors:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2)	ors: of one required (Nonriverine) (Nonriverine)) riverine)) rial Imagery (B	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ac Water-Stained Leaves (ors: of one required (Nonriverine) (Nonriverine)) riverine)) rial Imagery (B	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) 	iving Roots (C3)	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)
Depth (inches): temarks: YDROLOGY Yetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (None Sediment Deposits (B2) Drift Deposits (B3) (None Surface Soil Cracks (B6 Inundation Visible on Ac Water-Stained Leaves (Field Observations:	ors: of one required (Nonriverine) (Nonriverine)) rial Imagery (B' B9) Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	iving Roots (C3)	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)
Depth (inches): temarks: YDROLOGY Yetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ac Water-Stained Leaves (Field Observations: Surface Water Present?	ors: of one required (Nonriverine) (Nonriverine)) rial Imagery (B' B9) Yes	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 7) Thin Muck Surface (C7) Other (Explain in Remarks) 	iving Roots (C3)	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)
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ad Water-Stained Leaves (Field Observations: Surface Water Present? Mater Table Present? Saturation Present? Saturation Present?	ors: of one required riverine) (Nonriverine) riverine)) rial Imagery (B B9) Yes Yes Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	iving Roots (C3)	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)
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ad Water-Stained Leaves (Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present?	ors: of one required riverine) (Nonriverine) riverine)) rial Imagery (B B9) Yes Yes Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	iving Roots (C3)	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)
Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ad Water-Stained Leaves (Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present?	ors: of one required riverine) (Nonriverine) riverine)) rial Imagery (B B9) Yes Yes Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	iving Roots (C3)	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)

LIS Army Come of Engineers



WETLAND DETERMINAT	ION DATA FORM – Arid West Region
Project/Site: E. LEONESE	City/County: SAN BERNARDINO Co. Sampling Date: 3/12/14
Applicant/Owner: 2124ARD UNAS	State: Sampling Point:
Investigator(s): MALNEY LAGHLY	Section, Township, Range: <u>S25 T17 N RGE</u>
Landform (hillslope, terrace, etc.): SAND DUNE SUALE EDGE	Local relief (concave, convex, none): <u>SLIGHT INCLINE</u> Slope (%): 3
Subregion (LRR): WTEROR DESERT Lat: 3	5.10396 Long: 116.29398 Datum ND83
Soil Map Unit Name: MOSAVE DESCOT AREA (CAGAG	-) NWI classification: パッペ で
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" present? Yes 🔀 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes		Is the Sampled Area within a Wetland?	Yes	No	18
Remarks: LICARLY UPSLOPE	OF SMALL	SWALE ARD	NE OHW		225	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 3				Total Number of Dominant Species Across All Strata: (B)
4	-	= Total Cov	er	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. ATRIPLEX CANESCENS	20	1.	NL	Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
10	20	= Total Cov	er	FACU species x 4 =
Herb Stratum (Plot size: 10 ~)	Construction of the			UPL species x 5 =
1. ABRONIA VILLOSA				Column Totals: (A) (B)
2. Churchyma SP.				
3. CR-IPTANTINA ANAUSTIFOLIA			+	Prevalence Index = B/A =
4. MENTZELIA SP.			- P	Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
	14	= Total Cov	er	
<u>Woody Vine Stratum</u> (Plot size:) 1 2.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	<u></u>	= Total Cov		Hydrophytic Vegetation Present? Yes No X
Remarks:				
Terner Ho.				

US Army Corps of Engineers



	ription: (Descri	be to the de	pth needed	to docum	ent the i	ndicator	or confirm	the absence	e of indicators.)	
Depth Matrix Redox Features inches) Color (moist) % Color (moist) % Type ¹ Loc ²				Redox	Features	8		-		
inches)	Color (moist)	%	Color (r	noist)		Type'	Loc	Texture	Remarks	
<u>) - 24</u> "		_				_		SAND		
	oncentration, D=L	Depletich R	A=Reduced I	Aatrix CS	=Covered	i or Coate	d Sand Gr	ains. ² Lo	ocation: PL=Pore Lining, M=Matrix.	
Histosol Histic Ep Black Hit Hydroge Stratified 1 cm Mu Depleted Thick Da Sandy W	ipedon (A2)	RR C) nface (A11)) 1)	Sa Lo Lo Do Ro Ro	ass other indy Redo ripped Mar amy Muck amy Gleye pleted Mar dox Dark spleted Dark spleted Dark cox Depri- amal Pools	x (S5) trix (S6) cy Minera ed Matrix atrix (F3) Surface (ark Surfac essions (l (F1) (F2) (F6) æ (F7)		1 cm 2 cm Redu Red I Other ³ Indicaton wetland	s for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) Ided Vertic (F18) Parent Material (TF2) r (Explain in Remarks) s of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.	
Type:	Layer (if present	A						Hydric So	il Present? Yes No 🔀	
Depth (ind Remarks:	ches):							Injune oo		
YDROLO		0.00								
Marthan of Street			ad check al	that annh	0			Sec	ondary Indicators (2 or more required)	
Vetland Hy	Water (A1) ter Table (A2)			Salt Crust Biotic Crus Aquatic Inv Hydrogen	(B11) it (B12) vertebrate Sulfide O	dor (C1)		=	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)	
Primary India Surface High Wa Saturatio Water M Sedimer Drift Deg Surface Inundati	tarks (B1) (Nonr nt Deposits (B2) posits (B3) (Non Soil Cracks (B6) on Visible on Ae tained Leaves (B	(Nonriverin riverine)) rial Imagery	(B7)	Presence	of Reduct n Reduct Surface	ed Iron (C ion in Tille (C7)	Living Roo 4) d Soils (C6	» _	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)	

Remarks:

LIS Army Corps of Engineers



WETLAND DETERMINAT	ION DATA FORM - Arid West Region H1
Project/Site: E. LEONESE LAKE	City/County: SAN BERNAROINO COUNTY Sampling Date: 3 12 04
Applicant/Owner Richard Lnows	State: CA Sampling Point: 032
Investigator(s): LASHLY / MALNEY	Section, Township, Range: 525 TI2N ROE
Landform (hillslope, terrace, etc.): 5000 0000	_ Local relief (concave, convex, none): Slope (%): Slope (%):
Subregion (LRR): INTERIOR DESERT (D) Lat:	35.10350 Long: 1110.29219 Datum: NAD 83
Soil Map Unit Name:	NWI classification: Nor モ
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🔀 No (If no, explain in Remarks.)
Are Vegetation, Soil>_, or Hydrology>_ significant	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.

× No_ Hydrophytic Vegetation Present? Yes. Is the Sampled Area No_ × Hydric Soil Present? Yes within a Wetland? Yes_ No Wetland Hydrology Present? Yes No_ X Remarks: Main FLOOD BANK ABONE UPLAND 0~ CHANNEL

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. AMEIPLEX LANESLENS	10	-Y NL	Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)			UPL species x 5 =
1. COLANTHUS LAZIOPHILLUS			Column Totals: (A) (B)
2. AMDINULLIA RESTELLATA	1		12 12 12:10 12:00
3. talmarche Enlis			Prevalence Index = B/A =
4. DITUMBED INLIFORMILD			Hydrophytic Vegetation Indicators:
5. MALALOTHRIX GLOBRODA	1		Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	-7-	= Total Cover	
1			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2	_		be present, unless disturbed of problematic.
	-	= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cov	ver of Biotic C	rust	Present? Yes No
Remarks:			

LIS Army Come of Engineers



Profile Descrip	tion: (Describe t	o the dept	h needed to docun	nent the i	ndicator	or confirm	the absence of	f indicators.)		
Depth Matrix				x Features			Denut			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc	Texture	Remarks		
6-24				_		5000	-NGNSOL DATE	>		
Type: C=Con tydric Soil Ind Histosol (A	dicators: (Applica	etiofi, RM=	Reduced Matrix, CS LRRs, unless other Sandy Rede	wise not	I or Coate	d Sand Gr	Indicators 1	ation: PL=Pore Lining, M for Problematic Hydric S uck (A9) (LRR C)		
 Histic Epip Black Histi Hydrogen 	edon (A2))	 Saidy Redox (55) Stripped Matrix (56) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) 				2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
1 cm Muck Depleted E Thick Dark Sandy Mu	(A9) (LRR D) Below Dark Surface (Surface (A12) cky Mineral (S1) yed Matrix (S4)		Redox Dark Depleted Dark Redox Depl Vernal Pool	ark Surfac ressions (l	e (F7)		wetland h	of hydrophytic vegetation hydrology must be presen sturbed or problematic.		
Type:	yer (if present): es):						Hydric Soil I	Present? Yes	No_	
Remarks:										

HYDROLOGY

Wetland Hydrology Indica Drimany Indicators (minimum		uired: cher	k all that apoly)		Secondary Indicators (2 or more required)		
Primary Indicators (minimum of one required; ch 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 Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	:4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)		
Field Observations: Surface Water Present?	Ver	No	Depth (inches):				
Water Table Present?	Distance of the		Depth (inches):				
		No			ydrology Present? Yes No		
Describe Recorded Data (st	ream gauge	e, monitorir	ng well, aerial photos, previous in	spections), if availa	able:		
Remarks:							

LIS Army Corns of Engineers



WETLAND DETERMINAT	ON DATA FORM – Arid West Region H2
Project/Site: E. LRONESE LAKE	City/County: Sad BERMAEDING C. Sampling Date: 3/12/14
Applicant/Owner: RICHARD LYENS	State: CA Sampling Point: 033
Investigator(s): LASHLY / MAGNEY	Section, Township, Range: 525 TIZN RUE
Landform (hillslope, terrace, etc.): FLOT PLAYA BOTTOM	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): INTERIOR DESERT (D) Lat: 3	5.10334 Long: 116.29217 Datum: Nov 03
Soil Map Unit Name: MOSAUE DESER ARCA (CALLES)	NWI classification: Nove
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes 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 pro	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> No <u></u> Yes <u>X</u> No <u></u> Yes <u>X</u> No <u></u>	Is the Sampled Area within a Wetland?	Yes No	
Remarks:				

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. NTRIPLEX CANES/EAS	10	-Y (FAC)	Prevalence Index worksheet: Total % Cover of:Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
Herb Stratum (Plot size:)	10	= Total Cover	FACU species x 4 =
1. (DEAMING LESSAPHINEUS	5	2	UPL species x 5 =
2. S(U) SMUS			Column Totals: (A) (B)
3. PELIDENEID		=	Prevalence Index = B/A =
4. Majaconsidix hugenta			Hydrophytic Vegetation Indicators:
5. AMSINCKIA TOSSELATA			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting
8			data in Remarks or on a separate sheet)
		= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)			Indicators of hydric soil and wetland hydrology must
12			be present, unless disturbed or problematic.
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum %	% Cover of Biotic Cr	rust	Present? Yes No
Remarks:			
IS Army Corps of Engineers			Arid West - Version 2 A



Sampling Point: 033 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Depth Matrix Color (moist) Type Loc² Texture Remarks (inches) Color (moist) % CRACKED PLATES SILTY CLAY 0- 14 AND Yu-13 ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Redox (S5) _ 1 cm Muck (A9) (LRR C) Histosol (A1) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Reduced Vertic (F18) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) X Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes X No_ Remarks: Masking hydric Soil indicators - pH 8.91 on 24 June 2015

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch	ack all that anniv)	Secondary Indicators (2 or more required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Xurface 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 R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Water Table Present? Yes No		etland Hydrology Present? Yes <u> </u>
Remarks:		

US Army Coros of Engineers



F	
Project/Site: E. (LONESE	City/County: Sm BERNADINO LOUNT Sampling Date: 3/12/14
Applicant/Owner: LYONS RICHARD	State: Sampling Point:3_
Investigator(s): MALNEY LASHLY	Section, Township, Range:
	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): INTERIOR DEGET (D) Lat: 3	5.10429 Long: 110-29177 Datum: NAD83
	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year	ar? Yes 🔟 No (If no, explain in Remarks.)
Are Vegetation 🔟 , Soil <u>J</u> , or Hydrology <u>H</u> significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology _d naturally pro	oblematic? (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 Yes No	Is the Sampled Area
Hydric Soil Present? Yes X No Yes Yes Yes No Yes	within a Wetland? Yes No

Verified by D. Magney & Veroniz (Chan) Lee on 28 October 2014 VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
t			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x 1 =
4	_		FACW species x 2 =
5			FAC species x 3 =
		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	15 3	1. 2	UPL species x 5 =
1. SCHIZMUL BARBATUS 2. PEUTUCARMA	- 15	Y (RAD)	Column Totals: (A) (B)
		1	Prevalence Index = B/A =
3. EDEMALLING			Hydrophytic Vegetation Indicators:
4. CHENOREDIALES.		1	Dominance Test is >50%
5			Prevalence Index is ≤3.0 ¹
6			Morphological Adaptations ¹ (Provide supporting
7			data in Remarks or on a separate sheet)
8	20	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:) 1			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Bare Ground in Herb Stratum % Cove	_0_	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks: Sprase ven in Problem Verified by D. Mayney	ATIC FI	LOOD PLAIN	

US Army Corps of Engineers



Ø.

Tome Deac	ription: (Describe to t	the depth				or confirm	the absenc	e of indica	itors.)	
Depth	Matrix Color (moist)		Redo Color (moist)	x Features %	Tvpe'	Loc ²	Texture		R	emarks
(inches) 0 · 2 4"			Color (molisty				1 SILT	RICH	1.	BIDTITE
Hydric Soil Histosol Histic Ep Black Hi Hydroge Stratified 1 cm Mu Depleted Thick Da Sandy M	oipedon (A2)	le to all LF		rwise note ox (S5) atrix (S6) xky Mineral yed Matrix latrix (F3) k Surface (rark Surfac ressions (I	ed.) (F1) (F2) F6) e (F7)	d Sand Gra	Indicator 1 cm 2 cm Redu Redu X Othe ³ Indicator wetlan	s for Prob Muck (A9) Muck (A10 iced Vertic Parent Mat r (Explain i	lematic (LRR C)) (LRR (F18) erial (TF n Rema ohytic ve y must b	B) rks) Igetation and re present,
Restrictive I Type: Depth (in	Layer (if present): ches):		_				Hydric So	il Present	? Yes	. <u> </u>
	Peoblematic High pH Musik				etated 240	n 24	noces June	2015		

ondary 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)
ogy Present? Yes <u>No</u> <u>No</u>

US Army Corps of Engineers



.

	WETLAND DETERMIN/	ATION DATA FORM - A	rid West Regio	n 11
Project/Site: CRONESE	aller som esti Chury,	_ City/County: SAN BER	NARDINO (O.	_ Sampling Date: _ 7 5 2.0.14
Applicant/Owner: RILLINGS	LONG	**	_ State: CA	Sampling Point: WP664
Investigator(s): Malan	LASHLY	Section, Township, Range	TIZN B	76 530
Landform (hillslope, terrace, etc.): _	PLANA EDLE - DUA	E_ Local relief (concave, con	vex, none): Mostly	FLAT_ Slope (%):
Subregion (LRR): INTERIOR D				
Soil Map Unit Name: Mosave	DISERT AREA (CA 695)	ROSITAS-CARRIZO	NWI classif	ication: <u>ಎಂಎ೯</u>
Are climatic / hydrologic conditions of	on the site typical for this time of	of year? Yes 🗶 No 🔜	(If no, explain in I	Remarks.)
Are Vegetation, Soil	or Hydrology significa	ntly disturbed? Are "No	rmal Circumstances"	present? Yes X No
Are Vegetation, Soil	or Hydrology <u>X</u> naturally	problematic? (If neede	ed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS -	Attach site map show	ing sampling point loca	ations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Netland Hydrology Present?	Yes Yes Yes	No × No ×	Is the Sampled Area within a Wetland?	Yes	No <u>X ></u>
Remarks:					
1					

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata:(B)
4	-	= Total Co	ver	Percent of Dominant Species 50 (A/B)
1. Larra triductata	10	<u> </u>	NL	Prevalence Index worksheet:
2. Atripleye confiscents while characteria	10	~((FAL)	Total % Cover of: Multiply by:
3. Petalonyx thurberissp thurberi.			(FAI)	OBL species x 1 =
4				FACW species x 2 =
5		-	0.000	FAC species 10 x3= 30
	15	= Total Co	ver	FACU species x 4 =
Herb Stratum (Plot size:)		- 1000100		UPL species 15 x 5 = 35
1. BEASSILA TOUENELOLI	1	_	NL	Column Totals: 25 (A) 105 (B)
2. I RAPTONTIA ANGUSTIFOLIA				
3.				Prevalence Index = B/A = 3
4.				Hydrophytic Vegetation Indicators:
				Dominance Test is >50%
5				Prevalence Index is ≤3.0 ¹
6				Morphological Adaptations ¹ (Provide supporting
7				data in Remarks or on a separate sheet)
8		and the second second second		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:) 1)		= Total Co	ver	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		= Total Co		Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover	of Biotic C	rust		Present? Yes No X
Problem area; Desert with and p	alayas :	are offe	n prob	ilementic in that many vegetition, sail, and,
hydrology indictors are beling or i & see Lichvar Hoiron 2007 for spe	do not	develop	under	normal circumstances

LIC Army Come of Engineers

Profile Desc	cription: (Describe to t	he depth need	led to docu	ment the	indicator	or confirm	m the abs	sence of inc	Sampling		
Depth	Matrix			ox Feature	5		0. 0.2020				
(inches)	Color (moist)	<u>%</u> Colo	or (moist)	%	Type	_Loc ²	Texture Remarks				
18							UNCON	USOLIDATE	5 SAND	w	FEW
										5	Pebble
				201-2	St. 11-12	1					(05%
											C-2 1
				-							
			_								
¹ Type: C=C	oncentration. D=Depletic	on, RM=Reduc	ed Matrix, C	S=Covere	d or Coate	ed Sand G	irains.	² Location:	PL=Pore Lin	ing, M=	Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs,	unless othe	erwise not	ed.)		Indic	ators for P	roblematic H	ydric So	oils ³ :
Histosol	(A1)		Sandy Red	lox (S5)			_ 1	cm Muck (/	A9) (LRR C)		
	pipedon (A2)		Stripped M		1002404				A10) (LRR B)		
	istic (A3)		Loamy Mu	Str				Reduced Ve			
	en Sulfide (A4)		Loamy Gle		(F2)		Red Parent Material (TF2)				
	d Layers (A5) (LRR C)		Depleted M	1332 - 13 - 14 M	500		Other (Explain in Remarks)				
	uck (A9) (LRR D)		Redox Dar		Section 1						
-	d Below Dark Surface (A ark Surface (A12)		Redox Dep	Dark Surfac	80.00		² India	store of hur	rophytic vege	tation a	bo
	Aucky Mineral (S1)		Vernal Poo		-0)				ogy must be p		
	Gleyed Matrix (S4)		Terman . or	10 (1 0)					ed or problem		
	Layer (if present):						T				
Type:											
Depth (in	ches):						Hydrid	c Soil Prese	ont? Yes_		No X
Remarks:											
	De la	1		1							
1	Ho PRofi	$\iota \epsilon - l_i$	pose 31	eolean	soug					oðs.	
HYDROLO	GY		_						10.00	12	63. 7
Wetland Hy	drology Indicators:									_	
Primary India	cators (minimum of one r	equired; check	all that app	ly)				Secondary I	ndicators (2 o	r more r	equired)
Surface	Water (A1)		Salt Crus	t (B11)				Water N	Aarks (B1) (Ri	verine)	
	ater Table (A2)		Biotic Cru						nt Deposits (E	10000	
Saturati				vertebrate	s (B13)				posits (B3) (R		
	larks (B1) (Nonriverine)	10.00	- 100 COL 100 COL	Sulfide O				1000000000	e Patterns (B	1000 and 1000	
	nt Deposits (B2) (Nonriv	ACTIVITY AND A DESCRIPTION OF A	-	Rhizosphe		Living Ro	ots (C3)	STORES IN	ason Water Ta	196 1 9	0
Contraction of the second s	posits (B3) (Nonriverine	8000000 AP	Presence	ST 1999 1999 1999	2.000 C C C T	10000 T 1000			Burrows (C8		A92

		2000			
Saturation	Visible	on	Aerial	Imagery	(C9)

 Contraction Fishere on Fisher	unager) (or	ч.
Shallow Aguitard (D3)		

	Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks)		Shallow Aquitard (D3) FAC-Neutral Test (D5)				
Field Observations: Surface Water Present? Water Table Present?	S.S.S	No X Depth (inches):	_				
Saturation Present? (includes capillary fringe) Describe Recorded Data (s		No <u>X</u> Depth (inches):	Wetland Hydrology Present? pections), if available:	Yes No			
Remarks:							
NONE							

Recent Iron Reduction in Tilled Soils (C6)

HC Americ Cares of Casisson

Surface Soil Cracks (B6)





oject/site: CRONESE Lake	City/Co	unty: Sm	Benzedino	_ Sampling Date: _ 2/9/201
pplicant/Owner. Richan Lynni				Sampling Point: 065
vestigator(s): David Magney & Evan Lashly	Section	, Township, R	Range:	
indform (hillslope, terrace, etc.): plays	Local r	elief (concave	e, convex, none): (or	CANE Slope (%):
				7 5074 Datum:
				ification:
e climatic / hydrologic conditions on the site typical for this			(If no, explain in	
e Vegetation, Soil, or Hydrology si				° present? Yes X_ No
e Vegetation X , Soil X , or Hydrology X na			needed, explain any answ	
				20000000000000000000000000000000000000
UMMARY OF FINDINGS – Attach site map s	showing samp	bling point	locations, transec	ts, important features, etc
Hydrophytic Vegetation Present? Yes X No		is the Sample	Veter	m.2.52
Hydric Soil Present? Yes X No				X No
Vetland Hydrology Present? Yes X No				<u> </u>
Remarks: Verifiel by D. Magney & Vermiza (
Small Small for By	ROAD BI	D DR	AINAGE LL	LVERT
(common w/in) while on EDIFE of where Morne River	DELTA HO	EVER NO	T TYPEAL CONDI	TIONS
EGETATION – Use scientific names of plant				
	Absolute Domin	nant Indicator		orksheet:
ree Stratum (Plot size:)	% Cover Speci	es? Status	infumber of command	
			That Are OBL, FACV	V, or FAC: (A)
			Total Number of Don	-
			Species Across All S	trata: (b)
	= Tota	Cover	 Percent of Dominant That Are OBL, FACV 	
Sapling/Shrub Stratum (Plot size: <u>3</u> ~)				
Alteresters	20 4		Prevalence Index w	
SANDPORER BUSH - PERMONTY THURBON	<u> </u>	(PAL)	Total % Cover of	f: Multiply by: x 1 =
•				x 1 =
				x 3 =
•	25 = Tota	I Cover		x 4 =
lerb Stratum (Plot size:)		10.110 CONSIGNATION OF 10.1100 CONSIGNATION OF 10.1100 CONSIGNATION OF 10.1100 CONSIGNATION OF 10.1100 CONSIGNATIO	UPL species	x 5 =
Brassica: tournefortil	_2	11	- Column Totals:	(A) (B)
Schismus barbatus	_2	(FAL)	- Prevalence Ind	
·			- Hydrophytic Vegeta	
•		11 11 100	X Dominance Test	
			Prevalence Inde	
			Morphological A	daptations1 (Provide supporting
+			All Anna 1990 (1990) (1990) (1990)	rks or on a separate sheet)
	= Tota	Cover	Problematic Hyd	rophytic Vegetation ¹ (Explain)
Voody Vine Stratum (Plot size:)			¹ Indicators of hydric s	soil and wetland hydrology must
				sturbed or problematic.
	= Tota	I Cover	Hydrophytic	
	and to be	8.238.25	Vegetation	res 🗶 No
% Bare Ground in Herb Stratum % Cover	of Biotic Crust		Present?	res X NO
Remarks: DNUI LERRS W/ IN THE	(LALE .	1	00	-
Remarks: DNLY HERBS W/ IN THE	SWALE N	1 SHAN	BS ON FENCE	5

 $Y: DMEC \ box(Lyons) \ Mojave \ Wetland \ Delineation \ Vetland \ Delineation \ FINAL \ Lyons \ Wetland \ Delineation \ Report \ EC \ ODE \ Loop \$



2					or comm	the absence	e of indicators.)
Depth Matr Inches) Color (moist		Color (moist)	tedox Features	Type'	Loc ²	Texture	Remarks
[9"	<u> </u>						UNCONSOLIDATED GAN
12							Unions comes da
Biotiz Crust 104	R4/2 ~!	4" thick					biotic crust
),25-2" IUYR4/	2 1-	1.10.	6				compated sant
10 YR 51	3 /	tothe!	ngen				sand
<u> </u>	the byen				_		
Type: C=Concentration, D=	Depletion, RM=	Reduced Matrix	k, CS=Covered	d or Coate	d Sand Gr	rains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Ap	plicable to all	LRRs, unless o	otherwise not	ed.)		Indicator	s for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy	Redox (S5)				Muck (A9) (LRR C)
Histic Epipedon (A2)		Strippe	d Matrix (S6)				Muck (A10) (LRR B)
Black Histic (A3)			Mucky Minera	· · · · · · · · · · · · · · · · · · ·			ced Vertic (F18)
Hydrogen Sulfide (A4)			Gleyed Matrix	(F2)			Parent Material (TF2)
Stratified Layers (A5) (EI			ed Matrix (F3)	500		Other	r (Explain in Remarks)
_ 1 cm Muck (A9) (LRR D		the second se	Dark Surface (1 C - C - C - C - C - C - C - C - C - C			
Depleted Below Dark Su			ed Dark Surfac			³ Indicator	s of hydrophytic vegetation and
_ Thick Dark Surface (A12			Depressions (Pools (F9)	-0)			t hydrology must be present,
 Sandy Mucky Mineral (S Sandy Gleyed Matrix (S4 		vernar	roois (roj				disturbed or problematic.
estrictive Layer (if presen						1	
						1	
Туре:						Hydric So	ll Present? Yes X No
			THAN	PREN.	PLOT,	Moist	<u></u>
Type: Depth (inches): temarks: SLIGHTY MORE RECENT RUND	i lo país;	MAIL T	THAN DO	PPEV. .ek	PLOT,	Moist	6 ¹¹ -
Type: Depth (inches): Remarks: SLIL אדון הסלי (לננב אד פטאס) YDROLOGY	: 10 Mis. :5. 51	a second a second s	THAN DO	PPEV. ex		Moist	TO 15" from
Type: Depth (inches): Remarks: วัடานหาญ Mote (โรเราร์ รูเวลาส์ YDROLOGY Wetland Hydrology Indicat	د ام ۱۹۹۵ ۲۵ ۲۰۰۶ - ۲۰۰۶ ors:	mail t	HIN DO	POEN. Leik		, Moist 2 3"	to 19" from Deep
Type: Depth (inches): Remarks: הוועמדים איסצים (צניב אד פטאס) YDROLOGY Vetland Hydrology Indicat Primary Indicators (minimum	د ام ۱۹۹۵ ۲۵ ۲۰۰۶ - ۲۰۰۶ ors:	d; check all that		PPEV. Lex		, Moist 2 3" 	TO 19" from DEEP
Type: Depth (inches): temarks: לבנב אל מסלי (בנב אל מסלי YDROLOGY Vetland Hydrology Indicat rimary Indicators (minimum Surface Water (A1)	د ام ۱۹۹۵ ۲۵ ۲۰۰۶ - ۲۰۰۶ ors:	d: check all that	apply) Crust (B11)	PPEV. . ex		, Moist 2 3" <u>Sea</u>	TO 19" from DEEP andary Indicators (2 or more required) Water Marks (B1) (Riverine)
Type: Depth (inches): femarks: SLIGHTY MORE (RECENT RUNDO (DROLOGY Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2)	د ام ۱۹۹۵ ۲۵ ۲۰۰۶ - ۲۰۰۶ ors:	d: check all that Salt C Biotic	apply) Crust (B11) Crust (B12)	212		, Moist 2 3" 	TO 19" from DEEP ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (inches): temarks: SLIGHTG MORE (RECENT RUNDO YDROLOGY Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	Co Mi So F. Si ors: of one required	d: check all that 	apply) Crust (B11) Crust (B12) tic Invertebrate	es (B13)		, Moist 2 3" 	TO 19" from DEEP Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Type: Depth (inches): femarks: SLIGHTG MORE (ECCENT RUNDO (ECCENT RUNDO (E	cores: (f, S) ors: of one required	d: check all that 	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O	es (B13) dor (C1)	LAYE	, Moist 2 3" <u>Sec</u>	TO 19" from DEEP Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (inches): temarks: SLIGHTG MODE (Etcent Bunnel YDROLOGY Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr<br Sediment Deposits (B2)</td <td>iverine) (Nonriverine)</td> <td>d: check all that </td> <td>apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe</td> <td>es (B13) dor (C1) res along</td> <td>LAYE (</td> <td>, Mox57 2 3" <u>Seco</u> <u>Seco</u> </td> <td>TO 19" from DEEP Ondary 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)</td>	iverine) (Nonriverine)	d: check all that 	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe	es (B13) dor (C1) res along	LAYE (, Mox57 2 3" <u>Seco</u> <u>Seco</u> 	TO 19" from DEEP Ondary 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)
Type: Depth (inches): temarks: SLIGHTG MODE (Etcent Ronald YDROLOGY Vetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) & Water Marks (B1) (Nonr & Sediment Deposits (B2) Drift Deposits (B3) (Non	iverine) (Nonriverine)	d: check all that Salt C Salt C Biotic Aquat Hydro Oxidia Prese	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe ence of Reduce	es (B13) dor (C1) res along ad Iron (C-	LAYE (Living Roc 4)	, Mox57 2 3" <u>Sec</u> <u>-</u> 	TO 19" from DEEP Ondary 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)
Type: Depth (inches): temarks: SLIGHTG MODE (ECCENT RUNN) Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6)	iverine) (Nonriverine)	d: check all that Salt C Salt C Aquat Hydro Oxidia Prese Recer	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe ence of Reduce nt Iron Reducti	es (B13) dor (C1) res along ad Iron (C oon in Tille	LAYE (Living Roc 4)	, Mox57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS
Type: Depth (inches): emarks: SLIGHTG MODE (ECCENT RODE) Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ae	iverine) (Nonriverine) (nagery (B	d: check all that Salt C Biotic Aquat Hydro Oxidia Prese Recer 7) Thin M	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe ence of Reduce nt Iron Reducti Muck Surface (es (B13) dor (C1) res along ad Iron (C- ion in Tille (C7)	LAYE (Living Roc 4)	, Mox57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS Shallow Aquitard (D3)
Type: Depth (inches): emarks: SLIGHTY MODE (ECCENT RODE) Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ae Water-Stained Leaves (I	iverine) (Nonriverine) (nagery (B	d: check all that Salt C Biotic Aquat Hydro Oxidia Prese Recer 7) Thin M	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O zed Rhizosphe ence of Reduce nt Iron Reducti	es (B13) dor (C1) res along ad Iron (C- ion in Tille (C7)	LAYE (Living Roc 4)	, Mox57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS
Type: Depth (inches): emarks: SLIGHTY MODE (ECCENT RODE) (ECCENT RODE) (DROLOGY Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6) Inundation Visible on Ae Water-Stained Leaves (I ield Observations:	iverine) (Nonriverine) (Nonriverine) (al Imagery (B B9)	d: check all that Salt C Solic Aquat Ydro Oxidiz Prese Recer 7)Thin M Other	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide Or zed Rhizosphe ence of Reduce th Iron Reducti Muck Surface ((Explain in Re	es (B13) dor (C1) res along ad Iron (C con in Tille (C7) emarks)	Living Roc 4) d Soils (C6	, Mox57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS Shallow Aquitard (D3)
Type: Depth (inches): femarks: SLIGHTY MODE (ECCENT RODE) Vetland Hydrology Indicat trimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6) Inundation Visible on Ae Water-Stained Leaves (filed Observations: Surface Water Present?	iverine) (Nonriverine) irial Imagery (B B9)	d: check all that Salt C Biotic Aquat Hydro Oxidiz Prese Recer 7) Thin M Other No Dept	apply) Crust (B11) Crust (B12) tic Invertebrate agen Sulfide Oc zed Rhizosphe ence of Reducci Muck Surface ((Explain in Re th (inches):	es (B13) dor (C1) res along ad Iron (C ion in Tille (C7) emarks)	Living Roc 4) d Soils (C6	, Mox57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS Shallow Aquitard (D3)
Type: Depth (inches): Remarks: SLIGHTY MODE (ECCENT RODE) YDROLOGY Vetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6) Inundation Visible on Ae Water-Stained Leaves (I Field Observations: Surface Water Present? Water Table Present?	iverine) (Nonriverine) (Nonriverine) (niverine) (riverine)) rrial Imagery (B B9) Yes Yes	d: check all that Salt C Solt C Biotic Aquat Node Recer 7)Thin M Other NoDept NoDept	apply) Crust (B11) Crust (B12) tic Invertebrate igen Sulfide Or zed Rhizosphe ince of Reducti Muck Surface ((Explain in Re- th (inches): th (inches):	es (B13) dor (C1) rres along ad Iron (C- ion in Tille (C7) emarks)	Living Roc 4) d Soils (Ce	, Mox57 2 3" Seco 5)	TO 19" from DETP ondary 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 (CS Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (inches): Remarks: GLIGHTG MODE (LCCENT RODE) YDROLOGY Wetland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr Sediment Deposits (B2) Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ae	iverine) (Nonriverine) (Nonriverine) (iverine) (Nonriverine) riverine)) riverine)) Yes Yes Yes	d: check all that 	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O red Rhizosphe ence of Reduce th Iron Reducti Muck Surface ((Explain in Re- th (inches): th (inches):	es (B13) dor (C1) res along ed Iron (C ion in Tille (C7) emarks)	Living Roc 4) d Soils (C6	, Mox 57 2 3" <u>Sec</u> 	TO 19" feam DEEP Ondary 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 (CS Shallow Aquitard (D3)
Type: Depth (inches): Remarks: SLILLING MODE (CCCAN RODE (CCCAN RODE) YDROLOGY Netland Hydrology Indicat Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonr<br Sediment Deposits (B2)<br Drift Deposits (B3) (Non Surface Soil Cracks (B6 Inundation Visible on Ae Water-Stained Leaves (I Field Observations: Surface Water Present? Nater Table Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present?	iverine) (Nonriverine) (Nonriverine) (iverine) (Nonriverine) riverine)) riverine)) Yes Yes Yes	d: check all that 	apply) Crust (B11) Crust (B12) tic Invertebrate ogen Sulfide O red Rhizosphe ence of Reduce th Iron Reducti Muck Surface ((Explain in Re- th (inches): th (inches):	es (B13) dor (C1) res along ed Iron (C ion in Tille (C7) emarks)	Living Roc 4) d Soils (C6	, Mox 57 2 3" <u>Sec</u> 	TO 19" from DETP ondary 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 (C4 Shallow Aquitard (D3) FAC-Neutral Test (D5)

Lie to a constant



Charles And March 1998. All the second states and	RMINATION DATA FO	RM – Arid West Reg	ion Sampling Date:	7/9/2014
Applicant/Owner:		State:	Sampling Point:	066
Investigator(s):	Section, Townshi	p, Range:		
Landform (hillslope, terrace, etc.):	Local relief (cond	ave, convex, none):		e (%):
Subregion (LRR):	Lat: 35.100523	Long: -116, 23	5023 Datum	n:
Soil Map Unit Name:		NWI clas	sification:	
Are climatic / hydrologic conditions on the site typical for the Are Vegetation, Soil, or Hydrology		No (If no, explain Are "Normal Circumstance		(No
	naturally problematic?	(If needed, explain any an		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X N Yes N Yes N	within a Wetland?	Yes	NoX
Remarks: SAME AS	064 MINU	Leeosote		

VEGETATION – Use scientific names of plants.

Sapling/Shrub Stratum (Plot size:)	10	Dominant Indicator <u>Species?</u> <u>Status</u> <u>N</u> (FAL) <u>Y</u> (FAL) <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Species?</u> <u>Status</u> <u>Species?</u> <u>Species?</u> <u>Spec</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Image: Comparison of Dominant Species That Are OBL, FACW, or FAC: Image: Comparison of Dominant Species That Are OBL, FACW, or FAC: Image: Comparison of Dominant Species That Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC: Image: Comparison of Dominant Species The Are OBL, FACW, or FAC
1. BRASSICA TOURNEFORTI		100	Total % Cover of: Multiply by:
2. COMPTENTING ANGUSTIFOLIA		(PRC)	OBL species x1 =
3. PALAFOXIA SP.			FACW species x2 =
4			FAC species x3 =
5	- 1	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	->	_ = Total Cover	UPL species x 5 =
1			Column Totals: (A) (B)
2			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0° Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8		= Total Cover	 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum % Cove		_= Total Cover Crust	Hydrophytic Vegetation Present? Yes <u> </u>
Remarks: A GLANK FIELDS AT TOP	08 51	ieet are sa	AME AS WPO64 (J2)

10 A ---- Come of Conjacore



Profile Description: (Describe to the depth		or or confirm	n the absence	e of indicators	.)	
Depth <u>Matrix</u> (inches) Color (moist) %	Redox Features	1 1	-		1.1	
	Color (moist) % Type	Loc	Texture		Remarks	
-16				JNUNSO	CITACI	SAND .
				15% 80	Bblis	
		70.000 - 1200		20-31-310-940-		
		-				
				-		
			-		1000	
Type: C=Concentration, D=Depletion, RM=R		ated Sand Gr	the second s	cation: PL=Po		
Hydric Soil Indicators: (Applicable to all Li			Indicators	for Problema	tic Hydric S	oils ³ :
Histosol (A1)	Sandy Redox (S5)		1 cm M	Muck (A9) (LRF	RC)	
Histic Epipedon (A2)	Stripped Matrix (S6)		2 cm M	Muck (A10) (LF	RR B)	
Black Histic (A3)	Loamy Mucky Mineral (F1)		Reduc	ed Vertic (F18))	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)			arent Material		
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)		Other	(Explain in Rer	marks)	
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)					
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		1		conversa an	202
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Depressions (F8)			of hydrophytic		
Sandy Gleyed Matrix (S4)	Vernal Pools (F9)			hydrology mus	50 - 10 - 1 0 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	2
Restrictive Layer (if present):			unless d	isturbed or pro	blematic.	
					14.9	
Туре:	-		1			V
Pepth (inches): Remarks: Mo increators			Hydric Soil	Present? Y	'es	No <u>×</u>
Remarks: No increators			Hydric Soil	Present? Y	es	No <u>×</u>
Permarks: No montals YDROLOGY			Hydric Soil	Present? Y	es	No <u>X</u>
Remarks: Mo inductors YDROLOGY Wetland Hydrology Indicators:					1	No <u>X</u>
Remarks: Mo indicators YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of	CONTRACTOR OF A		Secon	idary Indicators	s (2 or more	
Remarks: Mo indicators: YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1)	Salt Crust (B11)		<u>Secon</u> W	idary Indicators /ater Marks (B1	s (2 or more 1) (Riverine)	
Remarks: Mo includeds YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)		<u>Secon</u> W S	idary Indicators /ater Marks (B1 ediment Depos	s (2 or more 1) (Riverine) iits (B2) (Riv	erine)
Remarks: Mo microfolds YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11)		<u>Secon</u> W S	idary Indicators /ater Marks (B1	s (2 or more 1) (Riverine) iits (B2) (Riv	erine)
Remarks: Mo Michaels YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)		<u>Secon</u> W S D D	idary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine 1s (B10)	erine))
Remarks: Mo includes YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) 		<u>Secon</u> W S D D	idary Indicators /ater Marks (B1 ediment Depos rift Deposits (B	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine 1s (B10)	erine))
Remarks: Mo Middatofs YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	g Living Root	<u>Secon</u> W S D D ts (C3) D	idary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine ns (B10) er Table (C2	erine))
Remarks: Mo Michael S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon	g Living Root C4)	<u>Secon</u> W S D ts (C3) D	idary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine 1s (B10) ler Table (C2 s (C8)	erine)) ')
Remarks: Mo inductors: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (0)	g Living Root C4)	<u>Secon</u> W S D D ts (C3) D C) S	idary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat	s (2 or more 1) (Riverine) its (B2) (Riverine 3) (Riverine 15 (B10) er Table (C2 s (C8) e on Aerial In	erine)) ')
Remarks: Mo Middatofs YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (C Recent Iron Reduction in Till	g Living Root C4)	<u>Secon</u> W S D D ts (C3) D C) Si Si	dary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visibl hallow Aquitard	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine ns (B10) er Table (C2 s (C8) e on Aerial In 1 (D3)	erine))))
Remarks: Mo Middadoff YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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 alon Presence of Reduced Iron (C Recent Iron Reduction in Till Thin Muck Surface (C7)	g Living Root C4)	<u>Secon</u> W S D D ts (C3) D C) Si Si	dary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine ns (B10) er Table (C2 s (C8) e on Aerial In 1 (D3)	erine))))
Remarks: Mo Machaels YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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) Field Observations:	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (C Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) 	g Living Roof 24) ed Soils (C6)	<u>Secon</u> W S D D ts (C3) D C) Si Si	dary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visibl hallow Aquitard	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine ns (B10) er Table (C2 s (C8) e on Aerial In 1 (D3)	erine))))
Remarks: Mo machels Primary Indicators (minimum of one required; of 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (C Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) C Depth (inches):	g Living Roof 24) ed Soils (C6)	<u>Secon</u> W S D D ts (C3) D C) Si Si	dary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visibl hallow Aquitard	s (2 or more 1) (Riverine) iits (B2) (Riv 3) (Riverine ns (B10) er Table (C2 s (C8) e on Aerial In 1 (D3)	erine)) ')
Remarks: Mo Middlafs YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (0 Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches):	g Living Roof C4) ed Soils (C6)	Secon W Si D D D D D D D D D D D D D D D D Si D D D Si D D Si D D D Si D D D Si D D Si D Si D Si D Si D Si D Si D Si D Si D Si D Si D Si Si D Si D Si D Si D Si Si Si D Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Monimized of S YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (C Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) C Depth (inches):	g Living Roof C4) ed Soils (C6)	Secon W Si D D D D D D D D D D D D D D D D Si D D D Si D D Si D D D Si D D D Si D D Si D Si D Si D Si D Si D Si D Si D Si D Si D Si D Si Si D Si D Si D Si D Si Si Si D Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si	dary Indicators /ater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visibl hallow Aquitard	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Monimized ASS YDROLOGY Primary Indicators (minimum of one required; of a 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) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron ((Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Monormaticators: Primary Indicators (minimum of one required; of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron ((Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Mo Michael S Primary Indicators (minimum of one required; of 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron ((Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine)) ')
Remarks: Mo Michael S Primary Indicators (minimum of one required; of 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) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron ((Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine)) ')
Remarks: Monimized State YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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) Field Observations: Surface Water Present? Yes No Nater Table Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Prior No Saturation Present? Yes No Saturation Present? Secribe Recorded Data (stream gauge, monit Remarks: Second Data (stream gauge, monit	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (0 Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) X Depth (inches): X Depth (inches): Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Monimized State YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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) Field Observations: Surface Water Present? Yes No Nater Table Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Prior No Saturation Present? Yes No Saturation Present? Secribe Recorded Data (stream gauge, monit Remarks: Second Data (stream gauge, monit	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron ((Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine))))
Remarks: Monitorial Mathematical State YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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) Field Observations: Surface Water Present? Yes No Nater Table Present? Yes No Saturation Present? Yes No <t< td=""><td>Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (0 Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) X Depth (inches): X Depth (inches): Depth (inches):</td><td>g Living Roof C4) ed Soils (C6)</td><td> <u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/</td><td>dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes</td><td>s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)</td><td>erine)) ')</td></t<>	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (0 Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks) X Depth (inches): X Depth (inches): Depth (inches):	g Living Roof C4) ed Soils (C6)	<u>Secon</u> W Si D ts (C3) D ts (C3) D C) Si Si F/	dary Indicators dater Marks (B1 ediment Depos rift Deposits (B rainage Patterr ry-Season Wat rayfish Burrows aturation Visible hallow Aquitard AC-Neutral Tes	s (2 or more 1) (Riverine) sits (B2) (Riv 3) (Riverine ns (B10) ter Table (C2 s (C8) e on Aerial In (D3) st (D5)	erine)) ')

 $Y: DMEC \ box(Lyons) \ Mojave \ Wetland \ Delineation \ Vetland \ Delineation \ FINAL \ Lyons \ Wetland \ Delineation \ Report \ EC \ ODE \ Loop \$



BLANK FI	ELDS	WET SAME		LPO64	City/County:		Arid West	Region		Date:	7/9/2014
Applicant/Owner:					_ only country.		State:				067-
Investigator(s): Landform (hillslope, te Subregion (LRR):		:): <u>V~ Du</u>	LATIN		-	concave, c		UNDUL		- 22.232	pe (%): <u>()</u>
Soil Map Unit Name:									fication:		
Are climatic / hydrolog Are Vegetation	gic conditi					Are "f	(If no, ex Normal Circums eded, explain a	stances"			No

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes <u>×</u> No	
Remarks: SPARIELY VENETATER) - VEL COVER	OUCE REPRESEMED

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:(A)
1			Total Number of Dominant
3			Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:OO (A/B)
1. DEGET WILLOW - CHILDESS LARABIS	15	y (Facu)	Prevalence Index worksheet:
2. ATRIPLEX CANEDIENG	_5	Y NI-(FAC)	Total % Cover of: Multiply by:
3.			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
	20	= Total Cover	FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size:) 1)			Column Totals: (A) (B)
2			A CONTRACTOR OF A DECISION OF A DECISIONO OF A DECISIONO OF A DECISIONO OF A DECISIONO
3.			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5.			Dominance Test is >50%
6			Prevalence Index is ≤3.01
7			 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
Mine de Marea Citante ma (Distaire)		_ = Total Cover	
<u>Woody Vine Stratum</u> (Plot size:) 1)			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum % Cove	a los a los a los a		Vegetation Present? Yes <u>No</u> No
Remarks: SOMELINAS ISOLATES CALLOPS	יפייו כ	visine m	IN STRESELY VELETATED FLOD

10 ton Orne of Fastance



Profile Description: (Describe to the dep	oth needed to document the indicator or confi	irm the absence	of indicators.)
Depth Matrix	Redox Features	-1 13 11	
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture	Remarks
18"			PEBBLES/SAND
			WEAKLY CONSOLIDATED
			\$ STRATIFIED INTO
			THIN LAYERS
	and the second s		ALTERNATING
			PEBBLES /SAND
Hydric Soil Indicators: (Applicable to all Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	EReduced Matrix, CS=Covered or Coated Sand IRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1)	Indicators 1 cm 2 cm	cation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Other	Parent Material (TF2) (Explain in Remarks) of hydrophytic vegetation and
Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Other ³ Indicators wetland	(Explain in Remarks)
Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Other ³ Indicators wetland	(Explain in Remarks) of hydrophytic vegetation and hydrology must be present,
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) Restrictive Layer (if present): Type:	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	³ Indicators wetland unless o	(Explain in Remarks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
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) Restrictive Layer (if present): Type: Depth (inches):	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Other ³ Indicators wetland	(Explain in Remarks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
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) Restrictive Layer (if present): Type:	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9)	³ Indicators wetland unless o	(Explain in Remarks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.

Primary Indicators (minimum of one required	Secondary Indicators (2 or more required)			
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)		
High Water Table (A2)	Biotic Crust (B12)	K Sediment Deposits (B2) (Riverine)		
Saturation (A3) Aquatic Invertebrate		Drift Deposits (B3) (Riverine)		
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Z Drainage Patterns (B10)		
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livin	g Roots (C3) Dry-Season Water Table (C2)		
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)		
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled So	사실 수 있는 것 같은 것 같		
Inundation Visible on Aerial Imagery (B7		Shallow Aguitard (D3)		
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present? Yes N	o X Depth (inches):			
Water Table Present? Yes N	o 📉 Depth (inches):			
Saturation Present? Yes N (includes capillary fringe)	o 🖌 Depth (inches):	Wetland Hydrology Present? Yes X No		
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, previous inspect	ions), if available:		
Remarks:		a a a a a a a a a a a a a a a a a a a		
100 HUMMOLES & SWALE	, CLEARLY INDICITIVE	of FLUMAL ADDIVITY POTENTIALLY		
HISTORIC		4		

LIC Army Come of Engineers



BLANK Project/Site:	FIELDS		AS WPO	City/County: _		Arid West Re	- C	g Date: 7/4	2014
Applicant/Owner:		¥.	No. 1			State:	Samplin	g Point: 06	8
Investigator(s):				Section, Town	nship, Rang	je:			
Landform (hillslope, terr	ace, etc.):	f1000 pv	AIN	Local relief (c 		nvex, none): <u>Ur</u>		Slope (%) Datum:	
Subregion (LRR):			Lat:	33.10124	-			Datum	
Soil Map Unit Name:		214 1 2 2 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1		and the second second second	15 (mar 1)	NWI c	lassification:		
Are climatic / hydrologic	conditions o	n the site typ	pical for this time of	f year? Yes	No	(If no, expla	iin in Remarks.)		
Are Vegetation,	Soil,	or Hydrolog	y significa	ntly disturbed?	Are "N	ormal Circumsta	nces" present?	Yes X N	0
Are Vegetation,	Soil,	or Hydrolog	y naturally	r problematic?	(If nee	ded, explain any	answers in Ren	narks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> No Yes <u>×</u> No Yes <u>×</u> No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks: SIMILAR TO KE STILL SPORSE		scan-ifico whees of	FINE VS	CONDEC CANS

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species
			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4.			Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	1.1	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
1. ATRIPLEX CANEDLER'S	15	NAF FAC)	Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3.			OBL species x 1 =
4.			FACW species x 2 =
5.			FAC species x 3 =
		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)		and provide states of the second states of the seco	UPL species x 5 =
1. LEMPLANTINA ANGLISTIFELLA			Column Totals: (A) (B)
3.			Prevalence Index = B/A =
4.			Hydrophytic Vegetation Indicators:
5.			∠ Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
12 C		= Total Cover	- Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)			¹ Indicators of hydric soil and wetland hydrology must
2.			be present, unless disturbed or problematic.
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cow	er of Biotic C	rust	Present? Yes <u>No</u> No
Remarks:			

.....

Arid West - Version 2 0



OIL		Sampling Point: 06 8				
	needed to document the indicator or confirm	the absence of indicators.)				
Depth Matrix	Color (moist) % Type ¹ Loc ²	Texture Remarks				
inches) Color (moist) %	Color (moist) % Type Loc					
19"		stratified flurist deposits,				
<u></u>						
ype: C=Concentration, D=Depletion, RM=R	educed Matrix, CS=Covered or Coated Sand Gr					
ydric Soil Indicators: (Applicable to all Lf	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :				
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)				
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)				
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)				
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)				
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)				
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	—				
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)					
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and				
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,				
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.				
strictive Layer (if present):						
Type:						
Depth (inches):		Hydric Soll Present? Yes 📉 No				
Envire Defoses of	PEBBLES & SAND 1.	s thin Layers to 15"				
DROLOGY		1.1				
etland Hydrology Indicators:						
imary Indicators (minimum of one required;	check all that apply)	Secondary Indicators (2 or more required				
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)				
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)				
	—					
_ Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)				
_ Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)				
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roo					
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Cravfish Burrows (C8)				

Primary Indicators (minimum	of one required; ch	eck all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonri Sediment Deposits (B2) (Drift Deposits (B3) (Nonr Surface Soil Cracks (B6) Inundation Visible on Aer Water-Stained Leaves (B	(Nonriverine) Iverine) ial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No _ Yes No _	Depth (inches): Depth (inches): Depth (inches): Depth (inches): ing well, aerial photos, previous inspe	Wetland Hydrology Present? Yes No
Remarks:			

2



2000

	ERMINATION DATA F い P る ゆ 4 City/County:	ORM – Arid West Regi	Sampling Date:7/9/2014
Applicant/Owner:		State:	Sampling Point:
Investigator(s): Landform (hillslope, terrace, etc.): <u>ปงกงแลวางษร</u>	Section, Towns ແລະມີ Local relief (co	ncave, convex, none): <u>כה אי</u>	
Soil Map Unit Name:		NWI clas	sification:
Are climatic / hydrologic conditions on the site typical for t Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology	this time of year? Yes _ significantly disturbed? _ naturally problematic?	No (If no, explain Are "Normal Circumstance (If needed, explain any an	es" present? Yes No

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

Hydrophytic Vegetation F Hydric Soil Present? Wetland Hydrology Prese		Yes	No <u>×</u> No <u>×</u>	Is the Sampled Area within a Wetland?	Yes No
Remarks: SMALL	PLATEAU	BETWEEN	surales /	MSOR DRAINAGE LARGER FLOOD	- MICROTOPOGRAPHY PLAIN

VEGETATION – Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size:) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	1	_ (A)
2				Total Number of Dominant Species Across All Strata:	1	(B)
3		-		Species Across Air Strata.		_ (0)
4		Table		Percent of Dominant Species	100	(A/B)
Sapling/Shrub Stratum (Plot size: 3~)		= Total Co	ver	That Are OBL, FACW, or FAC:		- (AVB)
1. Atmeressies	~	4	FAC	Prevalence Index worksheet:		
2			1110	Total % Cover of:	Multiply by:	1.72
				OBL species	0.00	2.0
3				FACW species		
4				FAC species		
5						
2	_5_	= Total Co	iver	FACU species		
Herb Stratum (Plot size: 3m)	-		(m)	UPL species		
1. Sottimue SP.	1		(FPL)	Column Totals:	(A)	(B)
2. SALSOLA ST.	1		(PPR)	Prevalence Index = B/A	=	
3				Hydrophytic Vegetation India	cators:	
4				X Dominance Test is >50%		
5				Prevalence Index is ≤3.0 ¹		
6				Morphological Adaptations	1 (Brouida cupo	ortina
7				data in Remarks or on	a separate shee	t)
8.				Problematic Hydrophytic V		
	3	= Total Co	over		causer (
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and w	attand budralage	(must
1,				be present, unless disturbed of	r problematic.	musi
2.				bo present, entres estates est		
		= Total Co	over	Hydrophytic	20	
- 				Vegetation Yes X	No	
% Bare Ground in Herb Stratum %	Cover of Biotic C	Jrust		Presence res	_ 110	
Remarks:						
US Army Cares of Engineers					Arid West - Ver	rsion 2.0

 $Y: DMEC \ box{Lyons} \ box{Lyons} \ box{Wetland Delineation} \ wetland Delineation - FINAL \ Lyons \ wetland Delineation \ box{Report-ECronese Lake-DMEC-20151113.doc} \ box{Lyons} \ box$



inth	iption: (Describe to Matrix			c Features							
epth hches)	Color (moist)	%	Color (moist)	%	Type	Loc ²	Texture		Rem	arks	
	Gold Intelet							51.5	wl	e	Pros
0.00								SAND		SMAL	
- 15								Lopes	E SA,	ND U	/PEBBL
	ncentration, D=Deplet			=Covered		d Sand Gr	ains. ² Lo	cation: PL	=Pore Lin		
Histosol (Histic Epi Black His Hydroger	A1) pedon (A2)		LRRs, unless other Sandy Redo Stripped Ma Loamy Muci Loamy Gley Depleted Ma	ox (S5) trix (S6) ky Mineral ed Matrix	(F1)		Indicator 1 cm 2 cm Redu Red F	Muck (A9) (Muck (A9) (Muck (A10) ced Vertic (Parent Mate (Explain in	(LRR C) (LRR B) F18) rial (TF2)		ils':
Histosol (Histic Epi Black His Hydroger Stratified 1 cm Muc Depleted Thick Dan Sandy Mi	A1) pedon (A2) tic (A3) s Sulfide (A4)		Sandy Redo Stripped Ma Loamy Much Loamy Gley	x (S5) trix (S6) ky Mineral ed Matrix atrix (F3) Surface (ark Surfac essions (F	(F1) (F2) F6) a (F7)		Indicators 1 cm 2 cm Redui Red F Other ³ Indicators wetland	Muck (A9) (Muck (A10) ced Vertic (Parent Mate	(LRR C) (LRR B) F18) rrial (TF2) Remarks nytic vege must be p) tation an	
Histosol (Histic Epi Black His Hydroger Stratified 1 cm Muc Depleted Thick Dan Sandy Mi Sandy Gl	A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) (LRR C) k (A9) (LRR D) Below Dark Surface (k Surface (A12) ucky Mineral (S1)		Sandy Redo Stripped Ma Loamy Mucl Depleted Ma Redox Dark Redox Dark Redox Depr	x (S5) trix (S6) ky Mineral ed Matrix atrix (F3) Surface (ark Surfac essions (F	(F1) (F2) F6) a (F7)		Indicators 1 cm 2 cm Redui Red F Other ³ Indicators wetland	Muck (A9) (Muck (A10) ced Vertic (Parent Mate (Explain in s of hydroph hydrology	(LRR C) (LRR B) F18) rrial (TF2) Remarks nytic vege must be p) tation an	
Histosol (Histic Epi Black His Hydroger Stratified 1 cm Muc Depleted Thick Day Sandy Mi Sandy Gi	A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) (LRR C) k (A9) (LRR D) Below Dark Surface (k Surface (A12) ucky Mineral (S1) eyed Matrix (S4)	(A11)	Sandy Redo Stripped Ma Loamy Mucl Loamy Gley Depleted Ma Redox Dark Redox Depr Vernal Pools	x (S5) trix (S6) ky Mineral ed Matrix atrix (F3) Surface (ark Surfac essions (F	(F1) (F2) F6) a (F7)		Indicators 1 cm 2 cm Redui Red F Other ³ Indicators wetland	Muck (A9) (Muck (A10) ced Vertic (Parent Mate (Explain in s of hydroph hydrology	(LRR C) (LRR B) F18) rrial (TF2) Remarks nytic vege must be p) tation an	

HYDROLOGY

Wetland Hydrology Indica	tors:				
Primary Indicators (minimur	n of one req	uired; cheo	k all that apply)		Secondary Indicators (2 or more required)
Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2 Drift Deposits (B3) (No Surface Soil Cracks (Bi Inundation Visible on A	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))) ng Living Roots (C3) (C4) illed Soils (C6)	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	Depth (inches):		
Water Table Present?	Yes	No	Depth (inches):	the second second	han management in the second
Saturation Present? (includes capillary fringe)			Depth (inches):		drology Present? Yes No
Describe Recorded Data (si	tream gauge	, monitorir	g well, aerial photos, previous	inspections), if availa	able:
Remarks:					
			8		



	,	WETLAND	DETER	MINATION	DATA FOR	RM – Arid We	st Regio	n		T7
ERAPT 7 Project/Site:	S 100 1 200	· · · · · · · · · · · · · · · · · · ·	A .						g Date: _	7/9/2014
Applicant/Owner:										
investigator(s):				Se	ction, Township	o, Range:				
Landform (hillslope, ter	race, etc.): <u>U</u>	NOULAINE	Free	PLAIN LO	cal relief (conc	ave, convex, non	e): (020	NVE	Slop	e (%):
Subregion (LRR):				Lat: 35.	102392	Long:	- 1110.2	75061	_ Datum	с
Soil Map Unit Name:							NWI classi	fication:		
Are climatic / hydrologi	c conditions o	n the site typica	I for this	time of year?	Yes	No (If no	, explain in	Remarks.)		
Are Vegetation	Soil	or Hydrology _	sig	nificantly dis	turbed?	Are "Normal Circ	umstances	present?	Yes 🗡	No
Are Vegetation	Soil	or Hydrology	na	turally proble	matic?	(If needed, expla	in any ansv	vers in Rem	arks.)	
SUMMARY OF FI	NDINGS -	Attach site	map s	howing sa	ampling poi	int locations,	transec	ts, impor	tant fea	itures, etc.
Hydrophytic Vegetation Hydric Soil Present? Wetland Hydrology Present		Yes	No.		is the Sam within a W	epled Area etland?	Yes _>	< No		
Remarks: UN DULI LENR BANK ALTHOUGH NOT	LONGIRILI	INL WAS	ou, a	E-W	TRENDING	LINE O.	F CHING	PSIS LI	NEARIS	4 → BANK RIDGE
VEGETATION - U	lse scienti	fic names o	f plants	5.	in a contraction of a state of					
Tree Stratum (Plots 1. (Ch.)apsis				% Cover S		IS Number of	Ce Test wo Dominant DBL, FACW	Species	2	(A)
2 3						the second second	ber of Dom cross All St		2	(B)
4 Sapling/Shrub Stratur					Total Cover		Dominant DBL, FACW		100	(A/B)
1.50			<u>ನೆ:</u>	See	St. 175	Prevalence	e Index wa	orksheet:		
2. ATCIPLER LA	and the second street			-	4 FA	-			1.6 dlinks	by:
the second se	NESLEN(-(+A	Total	% Cover of		Multiply	0¥.

3				Total Number of Species Across		_	2	(B)
4 Sapling/Shrub Stratum (Plot size: 3 m)		= Total	Cover	Percent of Domi That Are OBL, F			00	(A/B)
1. <u>50,</u>	5	5.8		Prevalence Ind	ex worksh	eet:		
2. ATCIPLER LANESLENG	5	4	(FAT)	Total % Cov	ver of:	Mu	Itiply by:	
3.		5.6	-Find	OBL species		x 1 =		
4		5.02		FACW species				
5.	-92.5	-		FAC species				
		= Total	Cover	FACU species				
Herb Stratum (Plot size: 3~)	202 20222		828 M	UPL species				
1. Salsola tagus		4	(FAW)	Column Totals:				
20				Prevalence		200		_
4				Hydrophytic Ve				
				X Dominance				
5				Prevalence				
6				Morphologic			vide suppo	rting
7				data in R	Remarks or	on a sepa	rate sheet))
8		= Total		Problematic	Hydrophy	tic Vegetat	tion ¹ (Expla	uin)
Woody Vine Stratum (Plot size:)		_= rotar	Cover					
1				¹ Indicators of hy				must
2				be present, unle	ss disturbe	d or proble	ematic.	
% Bare Ground in Herb Stratum % Cove	2	_ = Total Crust		Hydrophytic Vegetation Present?	Yes _	X N	•	
Remarks: SMALL BANK DOMINATOD LINEARIC (NOT IN PLOT) CUILOPSIS APPL FORMATION OF BANK - F NOT REF	EASS TO	96	LARGE to	AM PHREMO	HHATE	LOWER	. BUTIN 4	N
IN LICHUAR & DIXON 2007 AS DI	en was	54 61	1. 50 TE	EATED AS	FAL			

US Army Coros of Engineers



Profile Description: (Describe to the depth r	needed to document the indicator or	Sampling Point: 07 17 confirm the absence of indicators.)
Depth Matrix	Redox Features	2000 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	Color (moist) % Type'	
) • ! 5		CLAYER SILT
.5-15		FINE UNCONSOLIDATED SAND
		HIGH IN BIOTITE - SOFT
ype: C=Concentration, D=Depletion, RM=Re	duced Matrix, CS=Covered or Coated	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LR	Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	Productors of budgets disconsisting and
_ Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	wetland hydrology must be present, unless disturbed or problematic.
strictive Layer (if present):		unless disturbed of problematic.
Type:		Hydric Soil Present? Yes 🔀 No
Depth (inches):		Hydric Soil Present/ Yes / No
	-	Hydric Soft Headin 1 108 7 3 Ho
emarks:		
BIOTITE APEARS (TR	ALLER NO	zate en la
BIOTITE APPEARS STR	ANIFIED NO	PEBBIG
BIOTITE APPEARS STR		PEBBICZ LYES THEN
BIOTITE APPEARS STR		PEBBIO
BIOTITE APPEARS STR		PEBBICZ LYES THEN
BISTITE APEARS STR	ee @ 4" speare so	REBBIEZ LYES RIE THEN BOTTE THEN BLOWS
BIOTITE APEARS STR	ee 💮 4 " See so	REBBIEZ RES OF THIN BOTIETIEN Secondary Indicators (2 or more required)
BIOTITE APEACS STRE D-2" 1/2" THICK LANG DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one required; cf _ Surface Water (A1)	heck all that apply)	PEBBICZ RIES OF THIN BOTIETIEN Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
BIOTITE APEACS STRE D-2" 1/2" THICK LANG DROLOGY Tetland Hydrology Indicators: timary Indicators (minimum of one required; cf Surface Water (A1) High Water Table (A2)	heck all that apply) Salt Crust (B11) Biotic Crust (B12)	PEBBIEZ RIES OF THIN BOTIETIEN Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
BIOTITE APEACS STRE D-2" 1/2" THICK LANG TOROLOGY Tetland Hydrology Indicators: rimary Indicators (minimum of one required; cf Surface Water (A1) High Water Table (A2) Saturation (A3)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	PEBBIEZ RIES OF THIN BOTIETIEN Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
BIGTITE APEACS STRE $D - 2'' \frac{1}{2}'' + u_{1CK}$ LANG (DROLOGY Tetland Hydrology Indicators: rimary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	PEBBIEZ RIES OF THIN BOTIETIEN Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drinage Patterns (B10)
BISTITE APEACS STRE $D - 2'' \frac{1}{2}'' + u_{1CK}$ LANG (DROLOGY Metand Hydrology Indicators: rimary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	PEBBIC Lyes Ries of THIN BOTIETSINA SELOWS
BIGTITE APEACS STRE $D - 2'' \frac{1}{2}'' + u_{1CK}$ LANG (DROLOGY Tetland Hydrology Indicators: rimary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)	Image: Press of Think Biotic Saws Scions Secondary Indicators (2 or more required)
BIGTITE APEACS STRE $D - 2'' \frac{1}{2}'' + u_{1CK}$ LANG DROLOGY Tetland Hydrology Indicators: timary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required)
BIGTITE APEACS STRE $D - 2'' \frac{1}{2}'' + u_{1CK}$ LANG DROLOGY Tetland Hydrology Indicators: timary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Secondary Indicators (2 or more required)
BISTITE APEACS STRE $O - 2'' \frac{1}{2'' + u_{1CK}} LANG DROLOGY etiand Hydrology Indicators: imary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)$	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required)
BISTITE APEACS STRE $D - 2'' \frac{1}{2'' - u_{1CK}}$ LANG DROLOGY retiand Hydrology Indicators: rimary Indicators (minimum of one required; cl 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)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Secondary Indicators (2 or more required)
BISTITE APEACS STRE D-2" $\sqrt{2}$ " ruice LNV (DROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required; cl 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) Veter Stained Leaves (B9)	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	PEBBIC Lyrs Ries of THIN BOTIE Secondary Indicators (2 or more required)
BISTITE APEACS STRE D-2" 1/2" TUICE LANG //DROLOGY //DROLOGY //DROLOGY //detiand Hydrology Indicators: rimary Indicators (minimum of one required; cd _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine) _ Drift Deposits (B3) (Nonriverine) _ Drift Deposits (B3) (Nonriverine) _ Drift Deposits (B3) (Nonriverine) _ Surface Soil Cracks (B6) _ Inundation Visible on Aerial Imagery (B7) _ Water-Stained Leaves (B9) Held Observations: urface Water Present? Yes No	heck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	PEBBIC Lyrs Ries of THIN BOTIE Secondary Indicators (2 or more required)
BISTITE APEACS STRE D-2" //2" THICK LANG //DROLOGY //DROLOGY ////DROLOGY ////////////////////////////////////		Image: Secondary Indicators (2 or more required)
BIGTITE APPEARS STRE D-2" 1/2" THICK LANG (DROLOGY Metand Hydrology Indicators: rimary Indicators (minimum of one required; cl 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) eld Observations: urface Water Present? Yes No fater Table Present? Yes No aturation Present? Yes No	Let L	Image: Secondary Indicators (2 or more required)
BIGTITE APPEARS STRE D-2" 1/2" THICK LANG (DROLOGY Metand Hydrology Indicators: rimary Indicators (minimum of one required; cl 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) eld Observations: urface Water Present? Yes No fater Table Present? Yes No aturation Present? Yes No	Let L	Image: Secondary Indicators (2 or more required)
BIGTITE APPEARS STRE D-2" 1/2" THICK LANG //DROLOGY //DROLOGY //DROLOGY //detand Hydrology Indicators: rimary Indicators (minimum of one required; cl 		PEBBIC LYPS RIES OF THIN BOTIETSAND SELON
BIGTITE APPEARS STRE D-2" 1/2" THICK LANG //DROLOGY //DROLOGY //DROLOGY //dretand Hydrology Indicators: rimary Indicators (minimum of one required; cl 	Let L	PEBBIC LYPS RIES OF THIN BOTIETSAND SELONS
BIOTITE APPEARS STRE D-2" 1/2" THICK LANG (DROLOGY Metand Hydrology Indicators: rimary Indicators (minimum of one required; cl 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) eld Observations: urface Water Present? Yes No. Autor Table Present? Yes No. Autor Table Present? Yes No. Autor Table Present? Yes No. Surface Corded Data (stream gauge, monitor emarks: SIGNIFICENT SCAT		PEBBIC LYPS RIES OF THIN BOTIETSAND SELON
BIGTITE APPEACS STRE D-2" 1/2" THICK LANG TOROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required; cd 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) ield Observations: urface Water Present? Yes No. Autration Present Present? Yes No. Autration Present Present Present Present Present Pre		Image: Ries of think of the secondary Indicators (2 or more required)



ENPTH FIELDS	SAME F	DETERMINATIO		I – Arid West Re	gion Sampling Dat	18 :: <u>7/1/14</u>
Applicant/Owner:			Server a train of the	State:	Sampling Poin	nt'_071
nvestigator(s):		S	ection, Township, F	Range:		
andform (hillslope, terrace, etc.):	WASH	L	ocal relief (concave	e, convex, none):	LAT	Slope (%): _D
Subregion (LRR):		Lat: <u>35</u>	102475	Long:	7503 D	atum:
Soil Map Unit Name:				NWI cla	assification:	
Are climatic / hydrologic condition	s on the site typi	cal for this time of year	? Yes No	(If no, explai	n in Remarks.)	
Are Vegetation, Soil	_, or Hydrology	significantly d	isturbed? Ar	e "Normal Circumstan	ces" present? Yes	No
Are Vegetation, Soil	_, or Hydrology	naturally prob	lematic? (If	needed, explain any a	inswers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	VIATERS
Remarks: LITARLY STONTIC	hed lances		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1)			Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 3 =
5		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 3 m)			UPL species x 5 =
Salar	- 1	4 FEAD	Column Totals: (A) (B)
2 Salsala tagur		- free	Prevalence Index = B/A =
4 5 6 7			Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
8		= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
<u>Woody Vine Stratum</u> (Plot size:) 1)			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2% Bare Ground in Herb Stratum% Cov		= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks: +00 sparse - essentia	2/3		

to the Original Frederice

Arid West - Version 2.0



Profile Description: (Describe to the	depth needed to document the indicator or co	nfirm the absenc	e of indicators.)
Depth <u>Matrix</u>	Redox Features	-	
inches) Color (moist) %	Color (moist) % Type ¹ Lo	c ² Texture	Remarks
- 0.5			FINES & GRAVEL
<u>s. 4</u>			FINE SAND
1-10"			ALTERNATING 1/2" SECTION
			SANO & GRAVEL
Type: C=Concentration. D=Depletion. ydric Soil Indicators: (Applicable to Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	RM=Reduced Matrix, CS=Covered or Coated Sar all LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1)	Indicator 1 cm 2 cm	Docation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red I	Parent Material (TF2)
Stratified Layers (A5) (LRR C)	 Depleted Matrix (F3) 	Other	r (Explain in Remarks)
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9)	wetland	s of hydrophytic vegetation and I hydrology must be present, disturbed or problematic.
estrictive Layer (if present):			
Type: Depth (inches):		Hydric So	il Present? Yes 📈 No
Remarks: CLENRLY FLOVIAL	DEROSITOD STRATIFIED LAYE	25	
YDROLOGY			
letland Hydrology Indicators:	montante da la manda de la marte	2000.00	
rimary Indicators (minimum of one requ	uired; check all that apply)		ondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)		Water Marks (B1) (Riverine)
 High Water Table (A2) 	Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)

Saturation (A3) Water Marks (B1) (Nonriverin Sediment Deposits (B2) (Non Drift Deposits (B3) (Nonriveri Surface Soil Cracks (B6) Inundation Visible on Aerial In Water-Stained Leaves (B9)	riverine) Oxidized Rhizospheres a ine) Presence of Reduced Iro Recent Iron Reduction in	C1) Drainage Patterns (B10) long Living Roots (C3) Dry-Season Water Table (C2) n (C4) Crayfish Burrows (C8) Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Water Table Present? Ye	es No <u>X</u> Depth (inches): es No <u>X</u> Depth (inches): es No <u>X</u> Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream	gauge, monitoring well, aerial photos, previou	is inspections), if available:
. /	SOR EFHEMERAL FLOOD PROSOPIS DOMINATED BANKS	CLIANNEL MOSAVE RIVER

LIS Army Coms of Engineers



-

WETLAND DE	TERMINATION	DATA FORM -	Arid West Region	77
oject/Site: EAST LEONESE LIKE	City	County: SAN	BERNARDINO	Sampling Date: 7 9 201
plicant/Owner: RIMARD Lyons		3 A.C	State: CA	Sampling Point: 072
estigator(s): MAGNEN LASHLY	Sec	tion, Township, Rar	nge: SECTION Id	TIZN RAE
ndform (hillslope, terrace, etc.): POTENTIAL F	and and los	al relief (concave, o	convex. none): Nor E	Slope (%):
bregion (LRR): DESERT (D)	Lat: _35.	116764	Long: - 116. 271	247 Datum: NAD83
I Map Unit Name: MOSAVE DESELT AREA (LA	645) ROSITAS	- CARE120	NWI classifica	tion: NONE
e climatic / hydrologic conditions on the site typical for	or this time of year?	Yes X No_	(If no, explain in Re	marks.)
e Vegetation, Soil, or Hydrology			Normal Circumstances" pr	esent? Yes 🗶 No _
e Vegetation, Soil, or Hydrology			eded, explain any answer	
			and the first state of the second state of the	
UMMARY OF FINDINGS – Attach site m	hap showing sa	mpling point is	ocations, transects,	important reatures, etc
	No No No	Is the Sampled within a Wetlar		No
Vetland Hydrology Present? Tes_x			LAND ENERA	
Remarks: SMALL DEPRESSION AN				
NTIRE BEEN (NE 14 NEVA DE SERVICE	· 19) was AT	remptod age	icurvee in th	not place lives
LEARLY VISIBLE ON GROUND &	E ARRIAL IMA	hey - F ve	LETATION HISTORI	LALLY DISTURGED
EGETATION - Use scientific names of p	plants. LIKELY	alea of w		to sheet flow
	Absolute D	ominant Indicator	Dominance Test works	
ree Stratum (Plot size:)			Number of Dominant Sp That Are OBL, FACW, o	r FAC: (A)
			CONTRACTOR PARTY AND	
			Total Number of Domina Species Across All Strat	
				12 March 12
	= "	Total Cover	Percent of Dominant Sp That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: 3)				- · ·
- Promo Constitute			Prevalence Index work	
			Total % Cover of:	x 1 =
l				x 2 =
				x 3 =
i		Total Cover		x4=
Herb Stratum (Plot size:)		rotal cover		x 5 =
EPISIUM NITIOUM	1	fac,	Column Totals:	(A) (B)
SCHUSMUS SP.				
AMONINE TOSSEATA	<u> </u>			= B/A =
			Hydrophytic Vegetation	
5			Prevalence Index is	
3			_	otations ¹ (Provide supporting
7			data in Remarks	or on a separate sheet)
B		Total Cover	Problematic Hydrog	ohytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	-)			
1			¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must
2				
	=	Total Cover	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum %	Cover of Biotic Crus	st	Present? Ye	s_X No
Remarks: NEW MISTORICALLY DISTURS	202			

LIS Army Come of Engineers



		ule depu	needed to docum				the absence	e of malcators.)
Depth (inches) Co	Matrix plor (moist)	%	Color (moist)	x Feature: %	Tvpe ¹	Loc ²	Texture	Remarks
0.18								CLARTER SILT UNCONS.
								W/ BIOTITE
voe: C=Concent	ation. D=Depleti	on, RM=F	Reduced Matrix, CS	=Covered	d or Coate	d Sand Gra	ains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			RRs, unless other					s for Problematic Hydric Soils ³ :
Histosol (A1)	1965 - 202 - 20		Sandy Redo	x (S5)	S.		1 cm	Muck (A9) (LRR C)
Histic Epipedor	1 (A2)		Stripped Ma					Muck (A10) (LRR B)
Black Histic (A:	3)		Loamy Much	ky Mineral	I (F1)		Reduc	ced Vertic (F18)
Hydrogen Sulfi	de (A4)		Loamy Gley	ed Matrix	(F2)		Red P	Parent Material (TF2)
Stratified Layer	s (A5) (LRR C)		Depleted Ma	atrix (F3)			Y Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)		Redox Dark	Surface (F6)		uncon	150, Istel
Depleted Below	v Dark Surface (A	A11)	Depleted Da	rk Surfac	e (F7)		solin	i try
_ Thick Dark Sur	face (A12)		Redox Depr	essions (l	F8)		³ Indicators	s of hydrophytic vegetation and
_ Sandy Mucky M	Aineral (S1)		Vernal Pools	s (F9)			wetland	hydrology must be present,
_ Sandy Gleyed	Matrix (S4)						unless o	disturbed or problematic.
estrictive Layer (if present):							
Type:								
ALP STOLL STOLEN STOLEN							Hydric Soil	Present? Yes X No
Depth (inches):			ALKALI					
Depth (inches): . Remarks: Poss 16	LE HIGH				OR L		LEID DO	F INUNDATION PREVENTS

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; ch	eck all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livin	g Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled So	ils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remarks)	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 (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspect	ions), if available:
Remarks:	-	
		MY , BUT NO EVICENCE OF HYDROPHHES
OR HYDRIC SOLS - LILCELY	W0 US	



BLANK FIELDS SAME AS 072	City/County:	Sampling Date:
licant/Owner:		State: Sampling Point: 073
		inge:
dform (hillslope, terrace, etc.): <u>Portennan</u> flood Land	Local relief (concave	convex, none):o ∧€ Slope (%):
region (LRR): Lat:	3. 114727	
	35.114111	NWI classification:
Map Unit Name:		
climatic / hydrologic conditions on the site typical for this time of		
Vegetation, Soil, or Hydrology significan		"Normal Circumstances" present? Yes X No
Vegetation, Soil, or Hydrology naturally	problematic? (If ne	eeded, explain any answers in Remarks.)
MMARY OF FINDINGS – Attach site map showi	ng sampling point I	locations, transects, important features, e
ydrophytic Vegetation Present? Yes 🗡 No	Is the Sampled	d Area
vdric Soil Present? Yes X No	within a Wetlan	\sim
etland Hydrology Present? Yes Yes No No	-	
EXTENSIVE SOIL CRACKING -		
KELY NELA OF WIDELY DISTRIGUTED	SHEET FLOW -	A INVATIATION PERIOD LONGER
HAN @ 072 WPOZI repres	suts Water Line	(D. Magney & Vermitz (Chan) Lee 10/28/
GETATION – Use scientific names of plants.		
Absolu		Dominance Test worksheet:
ee Stratum (Plot size:) <u>% Cov</u>		Number of Dominant Species (A)
		Total Number of Dominant
		Species Across All Strata: (B)
		Percent of Dominant Species
7	= Total Cover	That Are OBL, FACW, or FAC: 100% (All
apling/Shrub Stratum (Plot size: 3 m)	(FAI)	Prevalence Index worksheet:
10 MARIX 4000059 MA		Total % Cover of: Multiply by:
		OBL species x 1 =
		FACW species x 2 =
		FAC species x 3 =
_10	= Total Cover	FACU species x 4 =
erb Stratum (Plot size:)		UPL species x 5 =
YEGIOLARIA SP. S		Column Totals: (A) (B
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
		Prevalence Index is ≤3.0 ¹
		Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
		Problematic Hydrophytic Vegetation ¹ (Explain)
	= Total Cover	
loody Vine Stratum (Plot size:)	= Total Cover	1
loody Vine Stratum (Plot size:)		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		be present, unless disturbed or problematic.
	= Total Cover	be present, unless disturbed or problematic. Hydrophytic Vegetation
	= Total Cover	be present, unless disturbed or problematic. Hydrophytic

US Army Corps of Engineers

Arid West - Version 2.0

A	A	Æ	61
Ć	Ć	6	

Depth Matrix	h needed to document the indicator or co Redox Features		
inches) Color (moist) %		c ² Texture	Remarks
9-3 "			PLATY SILTY LLOY
			LESS PLATY "
7-15			SILTY FINE SAND W/ BIOTI
1-13			THIM GREATIFIED LAYERS
	1. P. L.		
No cilor_varia	ministratified byers		BIO7 ITE
Type: C=Concentration, D=Depletion, RM= Hydric Soil Indicators: (Applicable to all I	Reduced Matrix, CS=Covered or Coated Sa	nd Grains. ² Lo Indicators	cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm 1	Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)		Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)		ed Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Contraction of the second s	arent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	X Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
 Depleted Below Dark Surface (A11) Thick Dark Surface (A12) 	 Depleted Dark Surface (F7) Redox Depressions (F8) 	² Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		hydrology must be present,
Sandy Gleved Matrix (S4)		unless o	fisturbed or problematic.
Restrictive Layer (if present):			
Туре:		Correspondences	
Depth (inches):	as of biotite, w(A	THIN LAQUE	
Depth (inches): Remarks: VERY THIN STRATIFIED LAVE Alkalinity musking	as of Biotice, of A mydnic Soil Molicators - (THIN LAQUE	LED SOIL GUEFACE LE
Depth (inches): Remarks: Vecy THIN STRATIFIED LAYE Alkalinity Masking] YDROLOGY		THIN LAQUE	LED SOIL GUEFACE LE
Depth (inches): Remarks: VERY THIN STRATIFIED LAYE Alkalinity Masking I YDROLOGY Wetland Hydrology Indicators:	nydric soil indicators - (тнім сласи)H = 8.37	on 24 July 2015
Depth (inches): Remarks: VERY THIN STRATIFIED LAVE Alkalinity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	rydnic Soil indicators - (; check all that apply)	тнім сласи)H = 8.37 Seco	on 24 July 2015
Depth (inches): Remarks: VERY THIN STRATICIED LAVE A Kalinity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	; check all that apply) Salt Crust (B11)	THIN CROCH)H = 8.37 	on 24 July 2015
Depth (inches): Remarks: VERY THIN STRATIFIED LAYE A K alinity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	: check all that apply) Salt Crust (B11) Biotic Crust (B12) 7.	THIN CRACK)H = 8.37 	ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches): Remarks: VERY THIN STRATIFIED LAYE A Kalinity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	: check all that apply) — Salt Crust (B11) — Biotic Crust (B12) 7. — Aquatic Invertebrates (B13)	THIN CRACK)H = 8.37 	ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches): Remarks: VERY THIN STRATIFIED LANE A K alimity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	<pre>check all that apply) Salt Crust (B11) Biotic Crust (B12) 7 Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)</pre>	THIN CRACK)H = 8.37 	ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches): Remarks: VERY THIN STRATIFIED LAYE Alkalinity Masking I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine)	: check all that apply) — Salt Crust (B11) — Biotic Crust (B12) 7. — Aquatic Invertebrates (B13)	THIN CRACK)H = 8.37 	ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches): Remarks: VERY THIN STRATIFIED LANE Alkalinity Masking YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	: check all that apply) Salt Crust (B11) Biotic Crust (B12) 7. Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir	THIN CRACK)H = 8.37 	ndary 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)
Depth (inches): Remarks: VERY THIN STRATIFIED LAYE Alkalinity MUSKing I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine)	(check all that apply) Salt Crust (B11) Biotic Crust (B12) 7. Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	THIN CRACK)H = 8.37 Seco 	ndary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orit Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inches): Remarks: VEEY THIN STEATIETED LAYE A K alinity MUSKING YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	(check all that apply) Salt Crust (B11) Biotic Crust (B12) 7. Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	THIN CRACK)H = 8.37 Seco 	ndary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Oriti Deposits (B3) (Riverine) Oritinage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Depth (inches): Remarks: VERY THIN STRATIFICD LANE Alk alinity MUSKing I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Water-Stained Leaves (B9) Field Observations:	<pre>i: check all that apply) </pre>	THIN CRACK)H = 8.37 Seco 	ndary Indicators (2 or more required) Nater 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)
Depth (inches): Remarks: VERY THIN STRATIFICD LANE Alk alinity MUSKing I YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes 1	<pre>i: check all that apply) </pre>	THIN CRACK)H = 8.37 Seco 	ndary Indicators (2 or more required) Nater 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)
Depth (inches):	<pre>i: check all that apply) </pre>	THIN CRACK H = 8.37 g Roots(C3) = 0 H = 0	ACC SOL SURFACE LEY ON 24 July 2015 Indary Indicators (2 or more required) Nater 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)
Depth (inches):	<pre>i: check all that apply) </pre>	THIN CRACK H = 8.37 g Roots(C3) = 0 H = 0	ndary Indicators (2 or more required) Nater 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)
Depth (inches):	Image: Soil Milestors - (Image: Soil Soil Milestors - (Image: Soil Soil Soil Milestors - (Image: Soil Soil Soil Soil Soil Soil Soil Soil	THIN CRACK) H = 8.37 Seco - 4 - 5 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	ACC SOL SURFACE LEY ON 24 July 2015 Indary Indicators (2 or more required) Nater 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)
Depth (inches):	Image: Soil Milestors - (Image: Soil Soil Milestors - (Image: Soil Soil Soil Milestors - (Image: Soil Soil Soil Soil Soil Soil Soil Soil	THIN CRACK) H = 8.37 Seco - 4 - 5 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	ACC SOL SURFACE LEY ON 24 July 2015 Indary Indicators (2 or more required) Nater 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)
Depth (inches):	Image: Soil Milestors - (Image: Soil Soil Milestors - (Image: Soil Soil Soil Milestors - (Image: Soil Soil Soil Soil Soil Soil Soil Soil	THIN CRACK) H = 8.37 Seco - 4 - 5 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	ACC SOL SURFACE LEY ON 24 July 2015 Indary Indicators (2 or more required) Nater 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)
Depth (inches):	Image: Soil Milestors - (Image: Soil Soil Milestors - (Image: Soil Soil Soil Milestors - (Image: Soil Soil Soil Soil Soil Soil Soil Soil	THIN CRACK) H = 8.37 Seco - 4 - 5 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	ACC SOL SURFACE LEY ON 24 July 2015 Indary Indicators (2 or more required) Nater 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)

LIC Army Come of Engineere



BLANK Project/Site:	FIELDS	SAME	As		City/County:				J3 7/9/14
Applicant/Owner: _					Section, Township,		nte:¥		OTU J3
Investigator(s): Landform (hillslope	, terrace, etc.):	Rote	FAL	FLOODRIAN	Local relief (concav	ve, convex, no	one): <u> </u>	<u>∾€</u> S	lope (%): <u>^ O</u>
					35. 121687				AENT WETLAN
Are climatic / hydro Are Vegetation Are Vegetation	(, Soil	_, or Hydrolo	gy	_ significantly		re "Normal Ci	ircumstances'		No
SUMMARY OF	FINDINGS	- Attach	site ma	p showin	g sampling poin	t location	s, transect	s, important f	eatures, etc.
Hydrophytic Vege Hydric Soil Prese				No <u>≻</u>			Yes	No_X_	_

Wetland Hydrolog	y Present?	Yes	X_ No			
Remarks:	SIMILA	2 70	LAST CAL		TAMARY TRAD	1
SIMILAR 7	0 072 0	1.073	w Cheenter	PERIOD OF	INUN DATION & MORE	in fluence
FROM	PLAMA L	UR ENIE				

VEGETATION – Use scientific names of plants.

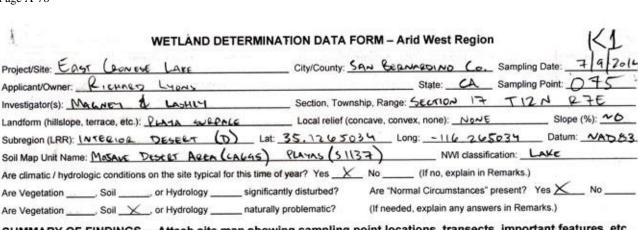
	Absolute	Dominant Indicator	Dominance Test worksh	neet:
Tree Stratum (Plot size:) 1)		Species? Status	Number of Dominant Spe That Are OBL, FACW, or	
2			Total Number of Dominar	nt
3			Species Across All Strata	17
4.			Percent of Dominant Spe	-
Sapling/Shrub Stratum (Plot size:)	100000	= Total Cover		FAC: (A/B)
1. dead timerre compaissing	0012 11	and the strength of the	Prevalence Index works	heet:
2.			Total % Cover of:	Multiply by:
3.			OBL species	x 1 =
4.			FACW species	x 2 =
5.			FAC species	The second se
J		= Total Cover	FACU species	
Herb Stratum (Plot size:)		 South Versit UT STUDIES 	UPL species	and the second
1. PECTOLARYA SP.	5		1.1 WORLDON 0.105 (2017)	(A) (B)
2. Scutsmus SP.		(FA:)		
3.			Prevalence Index =	= B/A =
4			Hydrophytic Vegetation	Indicators:
5			Dominance Test is >	50%
6			Prevalence Index is :	
7			Morphological Adapt	ations ¹ (Provide supporting or on a separate sheet)
8			Y Problematic Hydroph	ytic Vegetation ¹ (Explain)
West Mar Status (Blateins)	1000	= Total Cover		
Woody Vine Stratum (Plot size:) 1			¹ Indicators of hydric soil a be present, unless disturt	ind wetland hydrology must bed or problematic.
2		= Total Cover	Hydrophytic Vegetation	No_X
% Bare Ground in Herb Stratum % Cov	ver of Biotic C	rust	Present? Yes	No
Remarks: MANY SUREOUNDING TAMARIS	K DEAD	- DUE TO INU	NOATION OR IN	create in foil
SALINITY? AREA NISOF	FROM	INUNDATION L	VL VISIBLE IN	1992
ENTIRE PRALEL PREVIOUSLY				
			E NOTES	



-

	to document the indicator or		of indicators.)
Depth Matrix Color (moist) % Color (Redox Features moist) % Type 1	Loc ² Texture	Remarks
0-2			BLOCKY PED W/ POlyGO
		(LAYEY LOAM	
4		C DATE Y LOW	210 C
2-6			BLOCKY CLANEY SILT W/ BID
6 - 9		FINE SIL	SAND UNCONSOLIDATE
9-9.5		LINI	
		(LAHET-S	1 ¹ 17
Type: C=Concentration. D=Depletion, RM=Reduced			cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LRRs, unl			for Problematic Hydric Soils ³ :
	andy Redox (S5)		Auck (A9) (LRR C)
	ripped Matrix (S6)		Auck (A10) (LRR B)
	amy Mucky Mineral (F1)		ed Vertic (F18)
	amy Gleyed Matrix (F2)		arent Material (TF2)
	epleted Matrix (F3) edox Dark Surface (F6)	A Other	(Explain in Remarks)
	epleted Dark Surface (F7)		5
	edox Depressions (F8)	³ Indicators	of hydrophytic vegetation and
—	ernal Pools (F9)		hydrology must be present,
Sandy Gleyed Matrix (S4)			isturbed or problematic.
estrictive Layer (if present):			
Type:			
Depth (inches): lemarks: BFIGHT MOTTLES (RED)) Inc soil indicators		Present? Yes <u>×</u> No On 29 July 2015
Depth (inches): lemarks: Bright Morries (RED) Alkalinity masking hyp) Inc soil indicators,		
Depth (inches): temarks: BRIGHT MOTTLES (RED Alkalinity masking hypothesis (DROLOGY) Inic soil indicators,		
Depth (inches): temarks: BRIGHT MOTTLES (RED Alkalinity Masking hyp YDROLOGY Yetland Hydrology Indicators:	Anc soil indicators,	; pH 8.15	on 29 July 2015
Depth (inches): temarks: BRIGHT MATTLES (RED Alkalinity Masking hus YDROLOGY Yetland Hydrology Indicators: trimary Indicators (minimum of one required; check all	that apply)	; pH 8.15 Secon	On 29 July 2015
Depth (inches): temarks: BEIGHT MATTLES (RED Alkalinity Masking hus YDROLOGY Yetland Hydrology Indicators: trimary Indicators (minimum of one required; check all _ Surface Water (A1)S	that apply) Salt Crust (B11)	; pH 8.15 <u>Seco</u> r	On 29 July 2015 Indary Indicators (2 or more required) /ater Marks (B1) (Riverine)
Depth (inches): temarks: BEIGHT MATTLES (RED) Alkalinity Masking hy YDROLOGY Yetland Hydrology Indicators: trimary Indicators (minimum of one required; check all Surface Water (A1)S High Water Table (A2)E	that apply) Salt Crust (B11) Siotic Crust (B12)	; pH 8.15 <u>Seco</u> r v	on 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
Depth (inches): temarks: BEIGHT MOTTLES (RED Alkaling Masking hy YDROLOGY Yetland Hydrology Indicators: trimary Indicators (minimum of one required; check all Surface Water (A1)S High Water Table (A2)E Saturation (A3)A	that apply) Salt Crust (B11) Notic Crust (B12) Aquatic Invertebrates (B13)	; pH 8.15 <u>Seco</u> r v s	on 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine)
Depth (inches): emarks: BFIGHT MATTLES (RED Alkalinity MASKing hus /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; check all 	that apply) Salt Crust (B11) Siotic Crust (B12) Siquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	; pH 8.75 	on 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10)
Depth (inches): temarks: BEIGHT MOTTLES (RED Alkaling Masking hy VDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required; check all Surface Water (A1)S High Water Table (A2)E Saturation (A3)A Water Marks (B1) (Nonriverine)F Sediment Deposits (B2) (Nonriverine)	that apply) Salt Crust (B11) Siotic Crust (B12) Aquatic Invertebrates (B13) tydrogen Sulfide Odor (C1) Dxidized Rhizospheres along Livi	; pH 8./5 	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2)
Depth (inches): temarks: BEIGHT MOTTLES (RED Alkaling Masking hy rDROLOGY retand Hydrology Indicators: rimary Indicators (minimum of one required; check all 	that apply) Salt Crust (B11) Silt Crust (B12) squatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Xidized Rhizospheres along Livi Presence of Reduced Iron (C4)	; pH 8./5 	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8)
Depth (inches):	that apply) Salt Crust (B11) Silt Crust (B12) Silt Crust (B12) Silt Crust (B12) Silt Crust (B12) Silt Crust (B13) Silt Crust (B13)	; pH 8./5 <u>Secon</u> V S D S D S D S C oilis (C6) S	Oh 29 July 2015 Indary Indicators (2 or more required) Ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Depth (inches): emarks: BEIGHT MOTTLES (RED Alkalinity Masking hw /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; check all Surface Water (A1)S High Water Table (A2)E Saturation (A3)A Water Marks (B1) (Nonriverine)A Sediment Deposits (B2) (Nonriverine)A Surface Soil Cracks (B6)F Inundation Visible on Aerial Imagery (B7)	that apply) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Hydrogen Sulfide Odor (C1) Dividized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So thin Muck Surface (C7)	; pH 8./5 <u>Secon</u> _	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Depth (inches):	that apply) Salt Crust (B11) Silt Crust (B12) Silt Crust (B12) Silt Crust (B12) Silt Crust (B12) Silt Crust (B13) Silt Crust (B13)	; pH 8./5 <u>Secon</u> _	Oh 29 July 2015 Indary Indicators (2 or more required) Ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Depth (inches):	that apply) Salt Crust (B11) Salt Crust (B12) squatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So thin Muck Surface (C7) Dther (Explain in Remarks)	; pH 8./5 <u>Secon</u> _	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Depth (inches):	that apply) Salt Crust (B11) Siotic Crust (B12) Aquatic Invertebrates (B13) tydrogen Sulfide Odor (C1) Dxidized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches):	; pH 8./5 <u>Secon</u> _	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Depth (inches):	that apply) Salt Crust (B11) Siotic Crust (B12) Aquatic Invertebrates (B13) tydrogen Sulfide Odor (C1) Didized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches):	; pH 8./5 <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u></u>	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Depth (inches):	that apply) Salt Crust (B11) Siotic Crust (B12) Aquatic Invertebrates (B13) tydrogen Sulfide Odor (C1) Dxidized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches):	; pH 8./5 <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u></u>	Oh 29 Jyly 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Depth (inches):	that apply) Salt Crust (B11) Salt Crust (B11) Sidic Crust (B12) squatic Invertebrates (B13) tydrogen Sulfide Odor (C1) Dividized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches): Depth (inches):	; pH 8./5 Secon 	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Depth (inches):	that apply) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) squatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dividized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	; pH 8./5 Secon 	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes X No
Depth (inches):	that apply) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) squatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dividized Rhizospheres along Livi Presence of Reduced iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Dther (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	; p H 8./5 <u>Secon</u> Secon y s p s p s p s c oilis (C6) S F Wetland Hydrology tions), if available:	Oh 29 July 2015 dary Indicators (2 or more required) /ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes X No

LIS Army Coms of Engineers



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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Samp within a We		Yes	X	No		1
Remarks: LLEARLY PLAYA SLIGHTLY UPLAND		w INDICAT	ves of	OHW	10	THE	Enst	å	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1)	ALC: CONTRACT	Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata: (B)
4		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. SUEADA NIGRA	30		081	Prevalence Index worksheet: Total % Cover of: Multiply by:
3				OBL species
5		= Total Co	*****	FACU species x 5 = UPL species x 5 =
2. Schipming BARBASUS			(FAL)	Column Totals: (A) (B) Prevalence Index = B/A =
3 4 5		-		Hydrophytic Vegetation Indicators: Dominance Test is >50%
6				✓ Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8	191	= Total Co	wer	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum % Co		= Total Co		Hydrophytic Vegetation Present? Yes No
Remarks:				
				Arid West – Version 2.0



file Description: (Describe to the dep oth Matrix		x Feature		or comm	in the absen	ce or marc	atorsij	1
thes) Color (moist) %	Color (moist)	%	s Type'	Loc ²	Texture		Remark	ks
1					SILTY	CLAM	BLOLKY	POLYGONAL
20					BLOUKY		CLAM	CRACK
ZO MOU REDIN							6	
e: C=Concentration, D=Depletion, RM ric Soil Indicators: (Applicable to all	LRRs, unless other	rwise not		d Sand G	Indicato	rs for Pro	PL=Pore Lining	
Histosol (A1) Histic Epipedon (A2)	Sandy Redo Stripped Ma	atrix (S6)			2 cm		0) (LRR B)	
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Muc Loamy Gley					uced Vertic Parent Ma	: (F18) iterial (TF2)	
Stratified Layers (A5) (LRR C) I cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11)	Depleted M Redox Dark Depleted D	atrix (F3) Surface	(F6)				in Remarks)	3
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Dep Vernal Pool	ressions (CC 8		wetlan	d hydrolog	phytic vegetat y must be pre or problemation	sent,
trictive Layer (if present):								
ype:					Under D	oil Present	? Yes X	-
Depth (inches):					-			
PLAYA SAFFACE M	OF OHW	TO TH	iratific IE HIG	n 66	IEES AT ELEVATION STION SF		FLOT -	However SIDE.

Wetland Hydrology Indica Primary Indicators (minimur		heck all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Non Sediment Deposits (B2) Drift Deposits (B3) (No Surface Soil Cracks (B6 Inundation Visible on A	riverine)) (Nonriverine) nriverine) 3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Crayfish Burrows (C8)
Water-Stained Leaves Field Observations:	(B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No	X Depth (inches): X Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (sl	tream gauge, monito	oring well, aerial photos, previous inspe	ctions), if available:
Remarks: דאזנשטעל	Sone Sue	FALL CRACKS	



WETLAND C BLANK FIGLOS SAME AS Project/Site:		M – Arid West Regi	Sampling Date:
Applicant/Owner:		State:	Sampling Point: O 7 6
Investigator(s):	Section, Township,	Range:	
Landform (hillslope, terrace, etc.): PLAMA SUR	Face Local relief (concav	ve, convex, none): <u></u>	<u>o N €</u> Slope (%): <u>~ 0</u>
Subregion (LRR):			
Soil Map Unit Name:		NWI clas	sification:
Are climatic / hydrologic conditions on the site typica	for this time of year? Yes N	o (If no, explain i	in Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed? A	re "Normal Circumstance	es" present? Yes No
Are Vegetation, Soil, or Hydrology _		f needed, explain any ans	swers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling poir	t locations, transe	cts, important features, et
la anticipation de la companya de la			
Hydrophytic Vegetation Present? Yes X	No Is the Samp	led Area	

Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> No <u> </u>	within a Wetland?	Yes <u>×</u>	No
Remarks:				1

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		
2		Total Number of Dominant Species Across All Strata: (B)
4	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. Tama RAMOSISSIMA		Prevalence Index worksheet: Total % Cover of: Multiply by:
2 3		OBL species x 1 = FACW species x 2 =
4 5		FAC species US x3= x35 FACU species x4=
Herb Stratum (Plot size: 3 m) 1. (2mptantna Anicostifectia	<u>20</u> = Total Cover	$\begin{array}{c c} \hline & & & & \\ \hline & & & \\ \hline \hline & & \\ \hline \hline & & \\ \hline \\ \hline$
2. Schismus BREBATUS	2 (6	Golumin Totals (A) (B)
3		Hydrophytic Vegetation Indicators:
5		Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting
7		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:) 1		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum % Co	= Total Cover	Hydrophytic Vegetation Present? Yes X No
Remarks:		

LIC Army Come of Engineere



	10 (DELEC) (1 (DEEE) (1 (DELEC) (1 (DEEE) (to the dep				or comm	m the absence of indicators.)	
epth	Color (moist)	6/	Color (moist)	x Feature %		Loc ²	Texture Remarks	
ches)	Color (moist)		Color (moist)		TIPE			
-4								
- 12							FINE UNCONSOLIDATES (LOOKED)	5
-15							LEMENTED GAND (SAM	PLE
- 30							LOUSERY TONSOLIDADED FI	NE
					4			
pe: C=Co	ncentration, D=Depl	letion, RM	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matri Indicators for Problematic Hydric Soils ³ :	
	ndicators: (Applica	able to all			ed.)			
	(A4)							
Histosol			Sandy Red	0.00000-0			1 cm Muck (A9) (LRR C)	
Histic Ep	ipedon (A2)		Stripped M	atrix (S6)	1054		2 cm Muck (A10) (LRR B)	
Histic Ep Black His	ipedon (A2) stic (A3)		Stripped M Loamy Mu	atrix (S6) cky Minera	1100		2 cm Muck (A10) (LRR B) Reduced Vertic (F18)	
Histic Ep Black His Hydrogei	ipedon (A2) stic (A3) n Sulfide (A4)		Stripped M Loamy Mu Loamy Gle	atrix (S6) cky Minera yed Matrix	(F2)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2)	
Histic Ep Black His Hydroger Stratified	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C	2)	Loamy Mu Loamy Mu Depleted N	atrix (S6) cky Minera yed Matrix fatrix (F3)	(F2)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18)	
Histic Ep Black His Hydroger Stratified 1 cm Mu	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D)		Stripped M Loamy Mu Loamy Gle Depleted N Redox Dar	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface	(F2) (F6)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2)	
Histic Ep Black His Hydrogei Stratified 1 cm Mu Depleted	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface		Stripped M Loamy Mu Loamy Gle Depleted N Redox Dar Depleted D	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface bark Surface	(F2) (F6) ce (F7)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)	
Histic Ep Black His Hydroget Stratified 1 cm Mu Depleted Thick Da	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface irk Surface (A12)		Stripped M Loamy Mu Depleted N Redox Dar Redox Dar Redox Depleted D	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface park Surface pressions ((F2) (F6) ce (F7)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2)	
Histic Ep Black His Hydroger Stratified 1 cm Mu Depleted Thick Da Sandy M	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface		Stripped M Loamy Mu Loamy Gle Depleted N Redox Dar Depleted D	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface park Surface pressions ((F2) (F6) ce (F7)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)	
Histic Ep Black His Hydroger Stratified 1 cm Mu Depleted Thick Da Sandy M Sandy G	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface irk Surface (A12) Iucky Mineral (S1)		Stripped M Loamy Mu Depleted N Redox Dar Redox Dar Redox Depleted D	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface park Surface pressions ((F2) (F6) ce (F7)		 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present. 	
Histic Ep Black His Hydroger Stratified 1 cm Mu Depleted Thick Da Sandy M Sandy G	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface irk Surface (A12) lucky Mineral (S1) ileyed Matrix (S4)		Stripped M Loamy Mu Depleted N Redox Dar Redox Dar Redox Depleted D	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface park Surface pressions ((F2) (F6) ce (F7)		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.	
Histic Ep Black His Hydroger Stratified 1 cm Mu Depleted Thick Da Sandy M Sandy G strictive L Type:	ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR C ck (A9) (LRR D) I Below Dark Surface irk Surface (A12) lucky Mineral (S1) ileyed Matrix (S4)	e (A11)	Stripped M Loamy Mu Loamy Gle Depleted N Redox Dar Depleted D Redox Dep Vernal Poo	atrix (S6) cky Minera yed Matrix Matrix (F3) k Surface park Surface pressions ((F2) (F6) ce (F7)		 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present. 	

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; of	check all that apply)	Secondary Indicators (2 or more required)
 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) Given Sufficient (B12) Given Sufficient (B13) Give	Crayfish Burrows (C8)
	X Depth (inches):	Vetland Hydrology Present? Yes <u>k</u> No
Remarks: EXTENSIVE SOIL	CRACKS	8

LIP Army Come of Engineers



WETLAND DETERMINAT	TION DATA FORM - A	rid West Regio	n K3
BLANK FIELDS SAME AS 075 Project/Site:	City/County:	State	_ Sampling Date: 7/4/14 _ Sampling Point: 077
Applicant/Owner:		State:	_ sampling Point
Investigator(s):	Section, Township, Range	¢	
Landform (hillslope, terrace, etc.): PLATA FRIVAE	Local relief (concave, con	vex, none): <u>SLOPE</u>	Slope (%): _2
Subregion (LRR): Lat:	35. 126258 L	ong: -116.26	3776 Datum:
Soil Map Unit Name: MOSANE DESLET AREA (LA645) Rot	DITAG- CARIZO	NWI classif	fication:
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantl	ly disturbed? Are "Nor	rmal Circumstances*	present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If neede	ed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point loca	ations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> № Yes <u>×</u> № Yes <u>×</u> №	Is the Sampled Area within a Wetland?	Yes <u>×</u> No	
Remarks:			1.11	
1.7471				

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant Species Across All Strata: (B)
4		= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
1. A AROW WEDD - PLUCHER SERICER	20	4	FALW	Prevalence Index worksheet:
2. Apploseeni	2	4	FAC	Total % Cover of:Multiply by:/
3. SUBETA NILLA	3	4	OBL	OBL species x 1 =
4.				FACW species x 2 = VO
	12		1.00	FAC species 5 x3= 15
5	2.	= Total Co	over	FACU species x 4 =
Herb Stratum (Plot size:)			1200 201	UPL species x 5 =
1. Scalsweb Grebans	30	4	(PAR)	Column Totals: 40 (A) 80 (B)
2. PELEVELAGYA St.	10			
3. CRAPTANTA ANGLOTIFALIS	5		(FAC)	Prevalence Index = B/A =
4.				Hydrophytic Vegetation Indicators:
5.		-		✓ Dominance Test is >50%
6.				Y Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
		= Total Co	over	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				
% Bare Ground in Herb Stratum % Cove		_ = Total Co rust		Hydrophytic Vegetation Present? Yes No
			-	E - NOT WELL REFRESENTED IN IN HERB STRATUM

LIS Army Come of Engineers

Arid West - Version 2.0



Prome Description. (Describe to the deput	h needed to document the indicator or o	ommin the absence of marcators.
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ L	
- 18		SEMI CONSOLIDATED FINE SAND
,,		
ype: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated S	and Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
ydric Soil Indicators: (Applicable to all L		
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
 Histic Epipedon (A2) 	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	 Depleted Matrix (F3) 	Other (Explain in Remarks)
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
 Depleted Below Dark Surface (A11) 	Depleted Dark Surface (F7)	In the second second second
_ Thick Dark Surface (A12)	Redox Depressions (F8)	3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
estrictive Layer (if present):		~
Type:		
		and the second se
Remarks: VALUE STRATIFICATION		Hydric Soil Present? Yes <u></u> No
Depth (inches): Remarks: VALUE STEAT FILATION		Hydric Soil Present? Yes <u></u> No
Depth (inches): temarks: VALUE STEAT FILMTI		Hydric Soil Present? Yes <u>></u> No
Depth (inches): Remarks: VALOE STEAT FILATI: YDROLOGY Vetland Hydrology Indicators:		
Depth (inches): temarks: ערגטנ אדפתז ודונתיון: YDROLOGY Vetland Hydrology Indicators:	; check all that apply)	Secondary Indicators (2 or more required)
Depth (inches): temarks: ערגטנ אדפתז ודונתיון: YDROLOGY Vetland Hydrology Indicators:		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches): iemarks: VAGOE STRAT F ונאיזו: YDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required	; check all that apply)	Secondary Indicators (2 or more required)
Depth (inches): iemarks: VAGOE STRATIFICATION VDROLOGY Vetland Hydrology Indicators: rrimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	<u>check all that apply)</u> Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches): temarks: VAGOE STRATIFICATION YDROLOGY Yetland Hydrology Indicators: trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	<u>; check all that apply)</u>	Secondary Indicators (2 or more required) — Water Marks (B1) (Riverine) — Sediment Deposits (B2) (Riverine)
Depth (inches): temarks: VAGOE STEAT FIGTE TOROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches): temarks: VAGOE STEAT FIGTE YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Dry-Season Water Table (C2)
Depth (inches): temarks: VAGOE STEAT FIGTE YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Crayfish Burrows (C8)
Depth (inches): temarks: VAGOE STEAT FIGTE YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) X Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) X Surface Soil Cracks (B6)	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled S</u>	Secondary Indicators (2 or more required)
Depth (inches): temarks: VALUE STEAT FIGTER VALUE STEAT FIGTER Vetland Hydrology Indicators: trimary Indicators (minimum of one required 	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Si</u> <u>Thin Muck Surface (C7)</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Depth (inches): temarks: VALUE STRAT FILMIN VALUE STRAT FILMIN Vetland Hydrology Indicators: trimary Indicators (minimum of one required 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)	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled S</u>	Secondary Indicators (2 or more required)
Depth (inches): temarks: VALUE STRAT FILMIN VALUE STRAT FILMIN Vetland Hydrology Indicators: trimary Indicators (minimum of one required 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)	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Si</u> <u>Thin Muck Surface (C7)</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Depth (inches): temarks: VALUE STEAT FIGTER VALUE STEAT FIGTER Vetland Hydrology Indicators: trimary Indicators (minimum of one required 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) ield Observations:	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along Livi</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Si</u> <u>Thin Muck Surface (C7)</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Depth (inches):	 <u>check all that apply</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) 	Secondary Indicators (2 or more required)
Depth (inches):	<u> check all that apply</u> <u> Salt Crust (B11) </u> Biotic Crust (B12) <u> Aquatic Invertebrates (B13) </u> Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S C) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)
Depth (inches):	<u>check all that apply</u> <u> Salt Crust (B11) </u> <u> Biotic Crust (B12) </u> <u> Aquatic Invertebrates (B13) </u> <u> Hydrogen Sulfide Odor (C1) </u> Oxidized Rhizospheres along Livi <u> Presence of Reduced Iron (C4) </u> Recent Iron Reduction in Tilled S <u> Thin Muck Surface (C7) </u> Other (Explain in Remarks) No <u> Depth (inches): </u> No <u> Depth (inches): </u> No <u> Depth (inches): </u>	Secondary Indicators (2 or more required)
Depth (inches):	<u>check all that apply</u> <u> Salt Crust (B11) </u> <u> Biotic Crust (B12) </u> <u> Aquatic Invertebrates (B13) </u> <u> Hydrogen Sulfide Odor (C1) </u> Oxidized Rhizospheres along Livi <u> Presence of Reduced Iron (C4) </u> Recent Iron Reduction in Tilled S <u> Thin Muck Surface (C7) </u> Other (Explain in Remarks) No <u> Depth (inches): </u> No <u> Depth (inches): </u> No <u> Depth (inches): </u>	Secondary Indicators (2 or more required)
Depth (inches):	<u>check all that apply</u> <u>Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches</u>	Secondary Indicators (2 or more required)
Depth (inches):		Secondary Indicators (2 or more required)
Depth (inches):		Secondary Indicators (2 or more required)
Depth (inches):		Secondary Indicators (2 or more required)



WETLAND DETERN	INATION DATA FO	RM – Arid West Region	1	K4	1
Project/Site:	City/County:		Sampling Date:		
Applicant/Owner:		State:	Sampling Point:	OFO	4
Investigator(s):	Section, Townsh	ip, Range:			_
Landform (hillslope, terrace, etc.): PLANA OLE	Local relief (con	cave, convex, none): <u>SUIS HT</u>	scole Slo	pe (%): <u>3</u>	1
Subregion (LRR):	Lat: 35.126226	Long: -116.263	404 Datu	m:	
Soil Map Unit Name:		NWI classific	cation:		
Are climatic / hydrologic conditions on the site typical for this til	me of year? Yes	No (If no, explain in R	Remarks.)		
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed?	Are "Normal Circumstances" p	present? Yes	No	_
Are Vegetation, Soil, or Hydrology natu	urally problematic?	(If needed, explain any answe	ers in Remarks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> Yes <u>×</u> Yes	No No No	ls the San within a W	100 C 100 C 100 C 100 C	Yes	No <u>_X</u>
Remarks: ABOVE ROUKS	n CLEAR	MAREMARK	s \$	Obvious	PLAYA	SURFACE
STRATIFICATION L	likety ANCIE	NT LAVEBOD	concred	IN ALLOU	ium	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1.		Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata: (B)
4Sapling/Shrub Stratum (Plot size:)			ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1. T. RAMOSISSIME (TAMPER)	10	4	FAC	Prevalence Index worksheet:
2. ATRIPLON CANEXENS	5	-7-	FAC	Total % Cover of: Multiply by:
3			16-11-12-12-22	OBL species x 1 =
4.				FACW species x 2 =
5				FAC species x 3 =
		= Total Co	ver	FACU species x 4 =
Herb Stratum (Plot size:)	-			UPL species x 5 =
1. MALACOTHRIX RAFANESQUIA				Column Totals: (A) (B)
2. Quinterstance	-			
3. CONPERMENTA ANGUSTIFOLIA			(FAC)	Prevalence Index = B/A =
4. PECTOCARMA			Test	Hydrophytic Vegetation Indicators:
5. SCHISMA			(PAO	Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
	- 5	= Total Co	ver	_ reserve a second seco
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1	100			be present, unless disturbed or problematic.
2	10111			Hydrophytic
*	Same and	= Total Co		Vegetation
% Bare Ground in Herb Stratum % Cove	er of Biotic C	rust		Present? Yes No
Remarks: N-S TRENSIDA LINE				
BLANK FIELDS AT TOP OFSHE	EET SAM	ne As (075 (K	<1\

110 American of Fastances

And West - Version 2 0



Sampling Point: 078K4 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Type Texture Remarks Color (moist) % Color (moist) Loc (inches) % SAND 0-2 Loosi 2 LAMERG SANDHICHED of 3-4 Chairmer P FINE GAAVEL LOAM u 17 CEMENTED SANDY FINE 00% - 15 SAND ²Location: PL=Pore Lining, M=Matrix. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ____ Sandy Redox (S5) ___ 1 cm Muck (A9) (LRR C) ____ Histosol (A1) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Black Histic (A3) -Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Other (Explain in Remarks) X Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) ³Indicators of hydrophytic vegetation and Redox Depressions (F8) _ Thick Dark Surface (A12) wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) _ unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Hydric Soil Present? No Depth (inches): Remarks: Scoliling -LIKELY 1-111-A HYDROLOGY Wetland Hydrology Indicators:

Primary Indicators (minimum	n of one required; che	ck all that apply)		Secondary Indicators (2 or more required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Noni Sediment Deposits (B2) Drift Deposits (B3) (Nor Surface Soil Cracks (B6 Inundation Visible on Ac	riverine) (Nonriverine) iriverine) i) erial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tilleo Thin Muck Surface (C7)	•)	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 (Shallow Aquitard (D3)
Water-Stained Leaves (Field Observations: Surface Water Present?	560.550 Harding	Other (Explain in Remarks)		FAC-Neutral Test (D5)
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No Yes No	Depth (inches):	_	drology Present? Yes No 🔔
	ream gauge, monitori	ng well, aerial photos, previous ins	pections), if availa	able:
Remarks: Albove vi	STBLE INV	KI COITAGN	1973.	4



WETLAND D	ETERMINATION DATA FOR	RM – Arid West Region	DMEC1
Project/Site: E, CROAESE	City/County: 5	N BERNARDING Lo. Samplin	ng Date: 3 12 14
Applicant/Owner: Richago Lyons	T40, Inc.	State: <u>CA</u> Samplin	ng Point: 036
Investigator(s): MAGNEY LASHLY	Section, Township	, Range: 519 T12N R66	5
Landform (hillslope, terrace, etc.):	Rentom Local relief (conca	ave, convex, none): FLAT	Slope (%):
Subregion (LRR): INTERIOR DESERT (D)	Lat: 35, 11819	Long: 116.29817	Datum: NAD83
Soil Map Unit Name: MOSAVE DESELT AREA			
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes N	No (If no, explain in Remarks.))
Are Vegetation, Soil, or Hydrology	N_significantly disturbed?	Are "Normal Circumstances" present?	Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answers in Ren	marks.)
SUMMARY OF FINDINGS - Attach site		nt locations, transects, impo	rtant features, etc.
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X Wetland Hydrology Present? Yes X	No Is the Sam within a W	· · ·	·

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Species?	1. A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata: (B)
4	-	= Total Cove		Percent of Dominant Species 100 (A/B)
1. ATRIPLEX TOPPEN:	30	<u> </u>	FAC	Prevalence Index worksheet:
2	<u></u>			Total % Cover of:Multiply by:
3				OBL species x 1 =
4.				FACW species x 2 =
5.	-201			FAC species x3 =
	30	= Total Cove	r	FACU species x 4 =
Herb Stratum (Plot size: 10	-,0-	-		UPL species x 5 =
1. SCHIGMUS	5		NL	Column Totals: 30 (A) <u>40</u> (B)
2. CHURIZONTHE	1		NL	
3. AMSINUKIA THESSELLATA	1		NL	Prevalence Index = B/A =3
4				Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6				→ Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	8	= Total Cove	r	
1				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2% Bare Ground in Herb Stratum% Cov	_0	= Total Cove		Hydrophytic Vegetation Present? Yes No
	0. 01 01000 0			
Remarks:				



SOIL

11

Sampling Point: 56 Mach

	onfirm the absence of indicators.)		
Redox Features			
Color (moist) % Type' Lo			
	CRACKED PLATES ELAY		
	UNUNSOLIDOTED SOFT LLAT		
	SAND		
=Reduced Matrix, CS=Covered or Coated Sa	and Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis ³ :		
	1 cm Muck (A9) (LRR C)		
	2 cm Muck (A10) (LRR B) Reduced Vertic (E18)		
_ , , , , , , , , , , , , , , , , , , ,	Reduced Vertic (F18) Red Parent Material (TF2)		
	X Other (Explain in Remarks)		
	_ Other (Explain in Remarks)		
	³ Indicators of hydrophytic vegetation and		
	wetland hydrology must be present.		
Vernal Pools (P9)	unless disturbed or problematic.		
	unicas distanced of providmente.		
	1		
	Hydric Soil Present? Yes No		
oils			
1 1 1 1	1) cudulater (MS)=495		
as bubbles off=8	.61, Conductivity (MS)=495		
6 0	N 29 June 2015		
	a second s		
d; check all that apply)	Secondary Indicators (2 or more required)		
	Water Marks (B1) (Riverine)		
Salt Crust (B11)	vvater marks (B1) (Riverine)		
	Color (moist) % Type1 Li		

Sediment	Deposits	(B2)	(Riverin

- Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- C9)

Water Marks (B1) (Nor Sediment Deposits (B2 Drift Deposits (B3) (No Surface Soil Cracks (B Inundation Visible on A	(Nonriveri nriverine) 6) erial Imager		Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Encline Reserve)	Crayfish Burrows (C8)
Water-Stained Leaves (B9)		-	Other (Explain in Remarks)	PAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes	No	Depth (inches):	-
Water Table Present?	Yes	No	Depth (inches):	-
Saturation Present? (includes capillary fringe)	Yes	No		Wetland Hydrology Present? Yes X No
Describe Recorded Data (s	tream gauge	e, monitor	ing well, aerial photos, previous insp	ections), if available:
Remarks:				

Aquatic Invertebrates (B13)

Saturation (A3)

-



WETLAND DETERMIN	ATION DATA FORM – Ari	d West Region	' I	DMERZ
Project/Site: LRONESE LAVE	_ City/County: SAN BEE	MEDINO CO.	Sampling Date:	131/14
Applicant/Owner: Richard Lyons T40,	nc.	State:	Sampling Point:	49
Investigator(s): MAGNER LASHLY	Section, Township, Range:	S19 T12	N RGE	
Landform (hillslope, terrace, etc.): _PLAMA 6075000	Local relief (concave, conve	x, none):	Slope	(%):
Subregion (LRR): Lat:	35.10516 Lon	9: 116.28	s⊜lo Datum:	NADE3
Soil Map Unit Name: MOSAVE DESELT ALEA	(LAGAS)	NWI classifie	cation:	enteint
Are climatic / hydrologic conditions on the site typical for this time of		(If no, explain in F	ternarks.j	ACENT
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Norm	al Circumstances"	present?Yes 🖄	_ No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed,	explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locat	ions, transects	s, important feat	tures, etc.
			10 March 10	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes 🗶	No
Remarks:				
4				
				V 24 8 3

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:) 1)		Dominant Species?	Indicator Status	Dominance Test workshe Number of Dominant Speci That Are OBL, FACW, or F/	os 🖳	(A)
2		2		Total Number of Dominant Species Across All Strata:	_2	(B)
4Sapling/Shrub Stratum (Plot size:)		= Total Co		Percent of Dominant Specie That Are OBL, FACW, or F/		(A/B)
1. PROSOFIS MANDULOSA	5_	<u> </u>	(FAC)	Prevalence Index worksho	bot:	
2. ATQIPLEX CANESLENS		4	(FAC)	Total % Cover of:	Multiply b	Y:
3				OBL species	_ x 1 =	
4				FACW species	_ x 2 =	_
5				FAC species	_ x 3 =	
		= Total Co		FACU species	_ x 4 =	
Herb Stratum (Plot size:)				UPL species	_ x 5 =	
1	_			Column Totals:	_ (A)	(8)
3.				Prevalence Index = B	J/A =	10.
				Hydrophytic Vegetation In	idicators:	
4				Dominance Test is >50		
5				Prevalence Index is ≤3		
6 7				Morphological Adaptati data in Remarks or	ons' (Provide su	pporting eet)
8		= Total Co		Problematic Hydrophyt	ic Vegetation ¹ (E:	xplain)
Woody Vine Stratum (Plot size:)		_ = 10tai C0	WBI			
1				¹ Indicators of hydric soil and be present, unless disturbed		ogy must
2				be present, unless disturber	a or problematic.	
% Bare Ground in Herb Stratum % Co	and the second	_ = Total Co irust		Hydrophytic Vegetation Present? Yes 2	<u>≺_</u> n₀	
Remarks: ELOTONAL AREA IN M Attplex comescens is often A Prusupoing glandulosa is nearly alwal	und in	olanz s	inks in	Prain desert peoplin sur	d function of pe blug	s 2 hy lopp
JS Army Corps of Engineers	j, in the				Arid West - V	



Profile Desc	ription: (Describe to	the depth	needed to document the indicator or	confirm the abs	sence of indicators.)
Depth	Matrix		Color (moist) % Type	Loc ² Textu	re Remarks
nches)	Color (moist)	<u>%</u> _			
2-15		122 -	NONE		SAND UNCONSOLIDATED
5-18	104242	100		CLAY	y LOMMY SAND FAINT FE
					MOTTLES
vpe: C=C	oncentration. D=Deple	ation, RM=R	educed Matrix, CS=Covered or Coated	Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators: (Applica	ble to all LF	RRs, unless otherwise noted.)	Indic	ators for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S5)	_ 1	1 cm Muck (A9) (LRR C)
	pipedon (A2)		Stripped Matrix (S6)		2 cm Muck (A10) (LRR B)
Black H	istic (A3)		Loamy Mucky Mineral (F1)		Reduced Vertic (F18)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Red Parent Material (TF2)
	d Layers (A5) (LRR C uck (A9) (LRR D))	 Depleted Matrix (F3) Redox Dark Surface (F6) 	X	Other (Explain in Remarks)
	d Below Dark Surface	(A11)	Depleted Dark Surface (F7)		
	ark Surface (A12)	SING 30	Redox Depressions (F8)		cators of hydrophytic vegetation and
Contraction of the second s	Aucky Mineral (S1)		Vernal Pools (F9)		tland hydrology must be present.
	Gleyed Matrix (S4)			un	less disturbed or problematic.
and detter	Layer (if present):				
estrictive					
Type:			2		X
Type: Depth (in Remarks:			R HYDRIC DIDIGATOR	Lenai 1 - SENS	onally Ponded
Type: Depth (in Remarks:	ches):		and a second second second	Lenai 1 - SENS	an)
Type: Depth (in Remarks: YDROLO	ches):		and a second second second	Lenai 1 - SENS	end) onally ponded
Type: Depth (in Remarks: YDROLO Vetland Hy	ches): כסג נסהסודוק GY drology Indicators:		gas bubbler pH =	Lenai 1 - SENS	and Ponded uctivity (MS)=472
Type: Depth (in Remarks: YDROLO Vetland Hy Primary Indi	ches): כסע נסהסודוק GY drology Indicators: cators (minimum of or		gas bushler pH = check all that apply)	Lenai 1 - SENS	econdary Indicators (2 or more required)
Type: Depth (in Remarks: YDROLO Yotland Hy Primary Indi Surface	ches): COL CONDITIS GGY drology Indicators: cators (minimum of or Water (A1)		ggs bubbler ρH = check all that apply) Salt Crust (B11)	Lenai 1 - SENS	econdary Indicators (2 or more required)
Type: Depth (in Remarks: YDROLO Yotland Hy Primary Indi Surface	ches): כסע נסהסודוק GY drology Indicators: cators (minimum of or		check all that apply) Salt Crust (B11) Biotic Crust (B12)	Lenai 1 - SENS	$\frac{e_{r}}{e_{r}} = \frac{1}{2} \frac{e_{r}}{e_{r}} + \frac{1}{2} \frac{e_{r}}{e_{r}} = \frac{1}{2} \frac{e_{r}}{e_{r}} + \frac{1}{2} \frac{e_{r}}{e_{r}} = \frac{1}{2} \frac{e_{r}}{e_{r}} + \frac{1}{2} \frac{e_{r}}{e_{r}} + \frac{1}{2} \frac{e_{r}}{e_{r}} = \frac{1}{2} \frac{e_{r}}{e_{r}} + \frac{1}{2} \frac{e_{r}}{e_{r}} $
Type: Depth (in Remarks: YDROLO Yetland Hy Primary Indi Surface High W: Saturati	ches): COR (ONDITIS Color (Conditional) GGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3)	c	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Lenai 1 - SENS	$\frac{e_{r,r}}{e_{r,r}} = \frac{e_{r,r}}{e_{r,r}} + \frac{e_{r,r}}{e_{r,r}} $
Type: Depth (in Remarks: YDROLO YOROLO Vetland Hy Primary Indi Surface High W: Saturati X Water M	ches): COR CONDITING GGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverin	ne required; ne)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Lenan s - SENS 7.99, Cond	$\frac{e_{r,n}}{e_{r,n}} = \frac{1}{2} \frac{e_{r,n}}{e_{r,n}} = \frac{1}{2} e_$
Type: Depth (in Remarks: YDROLO Yetland Hy Primary Indi Surface High W Saturati X Vater M X Sedime	ches): Color Continue OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverin nt Deposits (B2) (Non	ne required; ne) riverine)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L	(ena) s - SEAS 7.99, Cond	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)
Type: Depth (in Remarks: YDROLO Yetland Hy Primary Indi Surface High W Saturati X Water M X Sedime Drift De	ches): Color Conditions: Cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverin nt Deposits (B2) (Non posits (B3) (Nonriverin	ne required; ne) riverine)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4)	iving Roots (C3)	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)
Type: Depth (in temarks: YDROLO Yetland Hy Primary Indi Surface High W Saturati X Saturati X Saturati X Saturati X Saturati X Saturati X Saturati X Saturati	ches): Color Conditions: Cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant nt Deposits (B2) (Non posits (B3) (Nonriveriant Soil Cracks (B6)	ne required; ne) riverine) ine)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C3)	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)
Type: Depth (in temarks: YDROLO Vetland Hy Primary Indi Surface High W Saturati Saturati Saturati Saturati Saturati Surface Drift De Surface Indi	Ches): Cool Conditions: Cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant nt Deposits (B2) (Non posits (B3) (Nonriveriant Soil Cracks (B6) ion Visible on Aerial In	ne required; ne) riverine) ine)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7)	iving Roots (C3)	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)
Type: Depth (in temarks: YDROLO Vetland Hy Primary Indi Surface High W. Saturati Saturati Saturati Saturati Surface Drift De Surface Inundat Surface Surface Surface Surface Surface Surface	Ches): Coole Condition Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Cool	ne required; ne) riverine) ine)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C3)	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)
Type: Depth (in temarks: YDROLO Vetland Hy Primary Indi Surface High W. Saturati Saturati Saturati Saturati Surface Drift De Surface Inundat Surface Surface Surface Surface Surface Surface	Ches): Coole Condition Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Cool	ne) Iniverine) Ine) nagery (B7)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks)	(2000) 1 - SENS 7 -99 , Cond iving Roots (C3) Soils (C6)	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)
Type: Depth (in Remarks: { YDROLO Vetland Hy Primary Indi Surface High Wi Saturati Saturati Saturati Surface Inundat Water-S Field Obset	Ches): Coole Condition Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Coole Cool	ne) riverine) ine) nagery (B7) es No	got bubbler ρH = check all that apply)	(2000) 1 - SENS 7 -99 , Cond Iving Roots (C3) Soils (C6)	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)
Type: Depth (in Remarks: @ YDROLO Vetland Hy Primary Indi Surface High W: Saturati Surface Inundat Water-S Field Obsei Surface Wa	ches): Cool Condition GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Nonriveria soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye	ne) Iniverine) Ine) nagery (B7)	<u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along L</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled</u> <u>Thin Muck Surface (C7)</u> <u>Other (Explain in Remarks)</u> <u>Depth (inches):</u>	(2000) 1.99, Cond iving Roots (C3) Soils (C6)	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)
Type: Depth (in Remarks: YDROLO YOROLO Yetland Hy Primary Indi Surface High W Saturati Yater M Sedime Drift De Surface Surface Wa Vater Table Saturation F	ches): Cool Conditions: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye	ne) riverine) ine) nagery (B7) es No es No	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth	iving Roots (C3) Soils (C6)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes X No
Type: Depth (in Remarks: YDROLO Wetland Hy Primary Indi Surface High W Saturati Y Water M Sedime Drift De Surface Inundat Vater S Surface Wa Water Table Saturation F	ches): Cool Conditions: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye	ne) riverine) ine) nagery (B7) es No es No	bubbler pH = check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous insp	iving Roots (C3) Soils (C6)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes X No
Type: Depth (in Remarks: @ YDROLO Wetland Hy Primary Indi Surface High W Saturati X Water M X Saturati Saturati Surface X Inundat Surface X Inundat Surface X Inundat Surface X Inundat Surface X Inundat Surface X Inundat Surface X Inundat Surface Wa Water Table Saturation F includes ca Describe Re	ches): Cool Conditions: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye	ne) riverine) ine) nagery (B7) es No es No	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth	iving Roots (C3) Soils (C6)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes X No
Type: Depth (in Remarks: YDROLO Wetland Hy Primary Indi Surface High W Saturati Y Water M Sedime Drift De Surface Inundat Vater S Surface Wa Water Table Saturation F	ches): Cool Conditions: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye	ne) riverine) ine) nagery (B7) es No es No	bubbler pH = check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous insp	iving Roots (C3) Soils (C6)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes X No
Type: Depth (in Remarks: @ YDROLO Vetland Hy Primary Indi Surface High W Saturati X Water M X Saturati Saturati Surface X Inundat Water-S Field Obset Surface Wa Water Table Saturation F includes ca Describe Re	ches): Cool Conditions: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveria nt Deposits (B2) (Non posits (B3) (Nonriveria Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye Present? Ye	ne) riverine) ine) nagery (B7) es No es No	bubbler pH = check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous insp	iving Roots (C3) Soils (C6)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drinage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes X No



WETLAND DETERMINAT	ION DATA FORM – Arid West Region DMEC3
Project/Site: E, CRONESE	City/County: SAN BEENREDING Sampling Date: 3 12/14
Applicant/Owner: RUMARD LYONS	State: CA Sampling Point: 035 DM
Investigator(s): MALNEY / LASHLY	Section, Township, Range: 525 TIZN REE
Landform (hillslope, terrace, etc.): UNDU MT INH	Local relief (concave, convex, none):
Subregion (LRR): INTERIOR DESERT (D) Lat:	35.10452 Long: 110.28817 Datum: NADO3
Soil Map Unit Name: MOSAVE DESET AREA (CABE	ເມັດ NWI classification: ພວມຢູ່
Are climatic / hydrologic conditions on the site typical for this time of y	이는 것 같아요. 그는 것 같아요. 그는 것 같아요. 이는 것 같아요. 이는 것 같아요. 이는 것 같아요. 이는 것 같아요. 것 같아요. 같이 많이 있는 것 같아요. 이는 것 않아요. 이는 것 같아요. 이는 것 않아요. 이는 것 이는 것 않아요. 이는 것 이는 것 않아요. 이는 것 않아.
Are Vegetation, Soil, or HydrologyN significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, SoilN_, or Hydrology naturally pr	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No <u>×</u> No	Is the Sampled Area within a Wetland?	Yes	_ <u>No_X</u> _	
Remarks: SAME AS LAST -	578A N 40	LNDULATIN	4 - EVIDENCE OF	AEOLIAN	& fluvine	PROCESSIES

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)		Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
4		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1	10000		Prevalence Index worksheet:
2	1000		Total % Cover of: Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
Herb Stratum (Plot size: 10 m)	0_	= Total Cover	FACU species x 4 =
	5		UPL species x 5 =
1. FREMALCHE 2. RUSSIAN - HISTLE - SALVALE - YAQUE		(FACU)	Column Totals: (A) (B)
3. CRYPTANTHA ANLUSTIALA		- (TACC)	Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size:)		= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
1) 2			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum 69 % Cov	2 	= Total Cover	Hydrophytic Vegetation Present? Yes <u>No</u>
Remarks: TOO SERRE			
IS Army Come of Engineers			Arid West - Version 2.0



	needed to document the indicator or confirm	
Depth <u>Matrix</u> (inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
) - V2		GEMI CONSOLIDAGED CRUST BIDTITE LOAD
/2-10		FINE SAND UNCONSOLIDATED
		RICH IN BIDTITE
	educed Matrix, CS=Covered or Coated Sand Gr	ains. ² Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all Lf	242. 이렇게 이상 방법에 가지 않는 것이 있었다. 이상 방법에 가지 않는 것이 같이 있는 것이 같이 있다. 가지 않는 것이 있는 것이 없는 것이 없는 것이 있는 것이 있는 것이 있는 것이 있는 것이 있는 것이 있다. 가지 않는 것이 있는 것이 없는 것이 않는 것이 없는 것이 않는 것이 않는 것이 없는 것이 않는 것이 않는 것이 없는 것이 없는 것이 없는 것이 않는 것이 없는 것이 않는 것이 없는 것이 없는 것이 없는 것이 않는 것이 않는 것이 않는 것이 않는 것이 않는 것 않는 것이 않이 않이 않는 것이 않이 않는 것이 않이 않 않이 않	Indicators for Problematic Hydric Solls ³ :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
_ Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
estrictive Layer (if present):		
Type:	-	
Depth (inches):		Hydric Soil Present? Yes No X
emarks: FINE LANCE OF SI VERN SPARSE VENERA	LT DEPOSITO AS URUST -	T FLUWAL
DROLOGY		
/DROLOGY /etland Hydrology Indicators:	1.1 million 2000-02	
	check all that apply)	Secondary Indicators (2 or more required)
etland Hydrology Indicators:	check all that apply) Salt Crust (B11)	Water Marks (B1) (Riverine)
etland Hydrology Indicators: imary Indicators (minimum of one required;		
etland Hydrology Indicators: imary Indicators (minimum of one required; _ Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
etland Hydrology Indicators: imary Indicators (minimum of one required; _ Surface Water (A1) _ High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Water Marks (B1) (Riverine) ∠ Sediment Deposits (B2) (Riverine)
etland Hydrology Indicators: imary Indicators (minimum of one required; _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) ✓ Drainage Patterns (B10)
Indicators: rimary Indicators (minimum of one required;	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) ✓ Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Tetland Hydrology Indicators: rimary Indicators (minimum of one required;	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roc	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) ✓ Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Vetland Hydrology Indicators: rimary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roc Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) ✓ Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)

 Yes
 No
 Depth (inches):

 Yes
 No
 Depth (inches):
 Wetland Hydrology Present? Yes X No_ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: PROBLEM AREA, LLEAR FLOOD PLAIN W DRAMALE PATTERS -> COMPLO FLOVIAL & AFOLIAN PROCESSES ?

US Army Corps of Engineers

Water Table Present?



WETLAND DETERMINAT	ION DATA FORM - Arid West Region DMEC 4
Project/Site: E. LACAESE	City/County: SAN BERNARDIND Sampling Date: 3/12/14
Applicant/Owner: Richard Lyons	State: CA Sampling Point:
Investigator(s): Manney (LASHLY	Section, Township, Range: 525 TIZN RUE
Landform (hillslope, terrace, etc.): UNDULAKING PLANA	Local relief (concave, convex, none):
Subregion (LRR): INTERIOR DEGERT (D) Lat: 3	5. 10760 Long: 110. 29675 Datum: NADES
Soil Map Unit Name: MOTAVE DESERT APER (CAUAS)	
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes X No	Is the Sampled Area within a Wetland?	Yes	No_X	
Remarks:				1	
0.					

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size:) 1)	% Cover	Dominant Indicator Species? <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata:(B)
4		Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
10	_0_=	Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 10 m)	2.	×1	UPL species x 5 =
1. Schismus		J NL	Column Totals: (A) (B)
2. FASINERIA			Prevalence Index = B/A = _ N A
3. MALALOTHIRIY		1-1-	Hydrophytic Vegetation Indicators:
4. PECHOLARYA		<u> </u>	Dominance Test is >50%
5			Dominance Test is >30%
6			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8			Y Problematic Hydrophytic Vegetation ¹ (Explain)
	25 -	Total Cover	
Woody Vine Stratum (Plot size:) 1	<u></u>		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 % Bare Ground in Herb Stratum 75 % Co		Total Cover	Hydrophytic Vegetation Present? Yes No X
Remarks: SPRESE HUMMPLKEY VEH			



Denth		a contraction of the second	ment the i	ndicator	or confirm	n the absence o	i malcutors.)	
Depth .	Matrix		ox Features		100	Texture	Rema	rke
(inches)		6 Color (moist)		Type	Loc	100 C		IINS
2- 1/2 .						SEMI CONSOLIS	PARED FLUFFY	الما المالية مالك
12.15	1048 5-2		_		_	UN CONCOL	weep rearry	
5-18	104R 3-3_					LLAY -		BIOTITE
8-30	104R3.3					CLAY_		
	ncentration, D=Depletion				d Sand G		tion: PL=Pore Linia	
dric Soil In	idicators: (Applicable)			ed.)			or Problematic Hy	dric Solls":
_ Histosol (Sandy Re					ick (A9) (LRR C)	
-	pedon (A2)	Stripped M					ick (A10) (LRR B)	
Black His			cky Mineral	1.000			d Vertic (F18)	
	Sulfide (A4)		eyed Matrix	(F2)			ent Material (TF2)	
	Layers (A5) (LRR C)	Contraction of the second seco	Matrix (F3)	501		-X Other (E	xplain in Remarks)	
	:k (A9) (LRR D)		rk Surface (1115-1110-0				
	Below Dark Surface (A1		Dark Surface				(hudenehudio usast	ation and
	k Surface (A12)		pressions (F	-8)			f hydrophytic veget ydrology must be p	
	ucky Mineral (S1) eyed Matrix (S4)	Vernal Po	ois (F9)			the second se	turbed or problema	
	ayer (if present):					1		
Tune								22000
rype.	han h					Hydric Soil P	resent? Yes	No X
Type: Depth (incl emarks:	nes):	200						
Depth (incl emarks: √	EHETATED OUT	vaors & y	umor	ik's	→ Fic	OD PLAIN	LICELY (Pa	oblematic)
Depth (incl emarks: V DROLOG	EHETATED OUT	caols & y		iks	→ Fic			
Depth (inclemarks:	E4ETATES 001			iks	→ Fic		LICELY (Pa	
Depth (incl emarks: DROLOO etland Hyd imary Indica	είμε τ κτοδουτ GY rology Indicators:		oly)	iks	→ Fic	Second		more required)
Depth (incl emarks: DROLOO etland Hyd imary Indica _ Surface V	Eίμε τ Λ τ κου ου τ GY rology Indicators: ators (minimum of one re	quired; check all that ap	oly)	iks	÷ Fic	<u>Second</u> Wa	lary Indicators (2 or	more required)
Depth (incl emarks: DROLOO etland Hyd imary Indica _ Surface V	SY rology Indicators: ators (minimum of one re Vater (A1) er Table (A2)	ouired: check all that ap Salt Crus Biotic Cru	oly) .t (B11)		÷ Fic	<u>Second</u> Wa Se	lary Indicators (2 or ater Marks (B1) (Rh	more required) verine) 2) (Riverine)
Depth (incl emarks:	SY rology Indicators: ators (minimum of one re Vater (A1) er Table (A2)	quired: check all that ap Salt Crus Biotic Cr Aquatic I	oly) tt (B11) ust (B12)	s (B13)	→ Fic	<u>Second</u> Wa Set Dri	lary Indicators (2 or iter Marks (B1) (Rh diment Deposits (B	rmore required) verine) 2) (Riverine) verine)
Depth (incl emarks:	Chernto our Chernto our Constraint of the re Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriverine)	guired: check all that ap Salt Crus Biotic Cr Aquatic I Hydrogen	oly) it (B11) ust (B12) nvertebrate:	s (B13) for (C1)		<u>Second</u> Wa Se Dri ∑ Dra	lary Indicators (2 or iter Marks (B1) (Rh diment Deposits (B ft Deposits (B3) (Ri	more required) verine) 2) (Riverine) (verine) 0)
Depth (incl emarks: DROLOO Torrelation Surface V High Wat Saturation Water Ma Sediment	Eherntes στη GY rology Indicators: ators (minimum of one re Vater (A1) er Table (A2) n (A3)	rguired: check all that app Salt Crus Biotic Crus Aquatic I Hydroger rine) Oxidized	oly) it (B11) ust (B12) nvertebrates n Sulfide Od	s (B13) Jor (C1) res along	Living Ro	<u>Second</u> Wa Se Dri Dri ots (C3) Dry	lary Indicators (2 or iter Marks (B1) (Rh diment Deposits (B ft Deposits (B3) (Ri ainage Patterns (B1	more required) verine) 2) (Riverine) (verine) 10) ble (C2)
Depth (incl emarks:	SY rology Indicators: ators (minimum of one re Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriverine) t Deposits (B2) (Nonrive	rguired: check all that app Salt Crus Biotic Crus Aquatic I Hydroger rine) Oxidized Presence	oly) tt (B11) ust (B12) nvertebrater n Sulfide Od Rhizospher	s (B13) Jor (C1) res along d Iron (C4	Living Roo	<u>Second</u> Wa Se Dri Dri Cra Cra	lary Indicators (2 or ater Marks (B1) (Ri- diment Deposits (B3) (Ri- dinage Patterns (B1 -/Season Water Tai	more required) verine) 2) (Riverine) (verine) (0) ble (C2)
Depth (incl temarks: CDROLOC Vetland Hyd Trimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Surface S	SY rology Indicators: ators (minimum of one re Nater (A1) er Table (A2) n (A3) arks (B1) (Nonriverine) t Deposits (B2) (Nonrive posits (B3) (Nonriverine) Soil Cracks (B6)	rine) Recent like	oly) tt (B11) ust (B12) nvertebrater n Sulfide Od Rhizospher e of Reduce	s (B13) Jor (C1) res along d Iron (C- on in Tille	Living Roo	<u>Second</u> Wa Se Dri Dri ots (C3) Dry Cra 6) Sal	lary Indicators (2 or iter Marks (B1) (Ri- diment Deposits (B3) (Ri- dinage Patterns (B1 y-Season Water Ta ayfish Burrows (C8)	more required) verine) 2) (Riverine) (verine) (0) ble (C2) Aerial Imagery (CS
Depth (incl temarks: VDROLOC Vetland Hyd trimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Dep Surface S Inundatio	SY rology Indicators: ators (minimum of one re Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriverine) t Deposits (B2) (Nonrive posits (B3) (Nonriverine)	rine) Recent li rine (B7) Right Recent li rine (B7) Right Recent li rine (B7) Thin Muc	oly) tt (B11) ust (B12) nvertebrate: n Sulfide Od Rhizospher e of Reduce ron Reduce	s (B13) Jor (C1) res along d Iron (C- on in Tille C7)	Living Roo	<u>Second</u> Wa Se Dri Dri ols (C3) Dry Cra 6) Sal Sh	lary Indicators (2 or ater Marks (B1) (Rh diment Deposits (B3) (Ri ainage Patterns (B1 y-Season Water Ta ayfish Burrows (C8) turation Visible on J	more required) verine) 2) (Riverine) (verine) (0) ble (C2)) Aerial Imagery (C9

Surface Water Present? Water Table Present?	Yes No X Depth (inc Yes No X Depth (inc			
Saturation Present? (includes capillary fringe)	Yes No X Depth (inc		Wetland Hydrology Present?	Yes <u>X</u> No
Describe Recorded Data (s	stream gauge, monitoring well, aerial p	hotos, previous inspe	ections), if available:	
Remarks:		O ANTA UNU		
NETWORK	of Swales	PHICHY	SAND OF TAMARIX	~ 50% TL7AM.
WP023 3	5.10805 116.29640	N \$ SOU	TH MUCH THINNER	\$ SPARSE



NATION DATA FORM – Arid West Region DMEC 5
City/County: SAN BERMADIND Co. Sampling Date: 3/12/14
State: <u>A</u> Sampling Point: <u>wp = 02</u>
Section, Township, Range: 525 TI2N RUE
MUN Local relief (concave, convex, none): UNDULATING Slope (%):
t: 35.10149 Long: 110.29192 Datum: NAD 53
(695) NWI classification: No NE
e of year? Yes No (If no, explain in Remarks.) cantly disturbed? Are "Normal Circumstances" present? Yes No illy 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? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland? Yes <u>No </u>
Remarks: EALT OF DEALET	PLAMA - INDICATOLS PRI & WEAKLY S SAND BAGS	OBLEMATIC BUT SOIL CEALES PECSENT TRATICICE MAGES WI VEGETATED DUNES &

VEGETATION – Use scientific names of plants.

2.	Tree Stratum (Plot size:)		Dominant Species?	Status	Dominance Test workshe Number of Dominant Speci That Are OBL, FACW, or F	es	(A)
20 = Total Cover 10 <td>2</td> <td></td> <td></td> <td></td> <td>Total Number of Dominant</td> <td>2</td> <td>(B)</td>	2				Total Number of Dominant	2	(B)
1. Prevalence Index worksheet: 2. Argeners Consistents 3. Laddea = religionation 4. 5. 6. 1. Conserved 2. Argeners 5. 1. O 1. Construct 5. 1. Construct 6. 1. Construct 2. Construct 1. Construct 2. Construct 3. Subject 3. Subject 3. Subject 3. Subject			_ = Total Co	ver			(A/B)
2. Arg. PITY CANESSENS S Y (FAC) 3. LAGRER TRIOLATION S Y NL 4. S Y NL 5. S Y NL 6. 2 Column Totals: (A) 7. S Y NL 8. 2 S NL 9. S Y NL 9. S Y NL 9. Y Z S 9. Y Z S 9. Y Z S 9. Y NL S 9. Y Z S 9. <td></td> <td>10</td> <td>-1</td> <td>(FAC)</td> <td>Prevalence Index worksh</td> <td>eet:</td> <td></td>		10	-1	(FAC)	Prevalence Index worksh	eet:	
3. LACEER TERPENDATE S NL OBL species x1 =			N	(FAC)	Total % Cover of:	Multiply by:	
4.		5	N	NL	OBL species	x 1 =	-
5.					FACW species	_ x 2 =	
Herb Stratum (Plot size: 10 m) 1. Q = Total Cover FACU speciesX4 = 1. STRIMANUS 2 UPL speciesX5 = 2. (Q-HAANUAS 2 Column Totals:(A) 3. STISEADERINA 2 Prevalence Index = B/A = 4. (nemedec 415) 2 Dominance Test is >50% 5. DB@contA 2 Dominance Test is >50% 6					FAC species	_ x3=	-
1. <u>STRIMANIUS</u> 2 Column Totals:(A)			= Total Co	ver	FACU species	x 4 =	_
2. 12-111 3. 545111000 3. 545111000 4. (1110000 4. (11100000 5. 1000000 6.	Herb Stratum (Plot size: 10m)				UPL species	x 5 =	_
3. <u>Subsected under an experimental problematic</u> 2 Prevalence Index = B/A =	1. S-RIPIANHUS	2			Column Totals:	(A)	_ (B)
3	2. LE-PLANTHA				5 6 1.000 C	28	
4	3. SYGINBRIVM						-
6.	4. (HEDRALIN	2					
0.	5. NBRONIA	2					
8.	6						
8.	7	_			Morphological Adaptat	ions' (Provide support	ting
Woody Vine Stratum (Plot size:) 1. 2. = Total Cover 'Indicators of hydric soil and wetland hydrology mills be present, unless disturbed or problematic.	8	_					
1. Indicators of hydric soil and wetland hydrology million 2. = Total Cover			= Total Co	ver	- Froblematic Hydrophy	ac vegetation (Explan	
2 = Total Cover Hydrophytic	Woody Vine Stratum (Plot size:)				ladicators of buddie coll on	d watland hydrology m	wiet
2 = Total Cover Hydrophytic	1						IUSL
Vegetation	2	-					
% Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes No	% Bare Ground in Herb Stratum % Cov		1000000000000		Vegetation	No X	
Remarks:					L		



OIL		DMECS Sampling Point 002 DMA
Profile Description: (Describe to the	he depth needed to document the indicator or con	nfirm the absence of indicators.)
Depth Matrix	Redox Features	
inches) Color (moist)	% Color (moist) % Type' Loc	
3.mm		CLAY CRUST 3, my THICK
1 - 30in		SAND TO BOIN
0-36:0		6
	<u> </u>	
Type: C=Concentration, D=Depletic	on, RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. ² Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable	e to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ⁵ :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
 Histic Epipedon (A2) 	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
 Hydrogen Sulfide (A4) 	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
 Depleted Below Dark Surface (A 		No. 1. And the description and
_ Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present, unless disturbed or problematic.
Sandy Gleyed Matrix (S4)		uniess disturbed or problematic.
testrictive Layer (if present):		
Type:		Hydric Soil Present? Yes 🔀 No
Depth (inches):		Hydric Soil Present? Tes No
Remarks: HUMMOCCS & V	ELETATOD DUNES & SAND-LEN LATFIED LAYERS - CRUST SAND SI	
0-04204		
YDROLOGY		
Vetland Hydrology Indicators:		
rimary Indicators (minimum of one	required; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
Saturation (A3)	Aguatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)

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)	Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Yes No		Wetland Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monito Remarks: บุஷายุเลเล่น รักสุร รูบกร การเกล		ETWEEN of EVIDENCE of

LIS Army Come of Engineers



APPENDIX B. COMPLETED CNPS RELEVÉ FIELD FORMS

Atriplex torreyi Provisional Shrubland Alliance

(3 pages)

Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association

(2 pages)



Atriplex torreyi Provisional Shrubland Alliance

CALIFORNIA NATIVE PLANT SOCIETY RELEVÉ FIELD FORM

(11011010 0120101)	(Revised 8/23/07)	

	FOR OFFICE USE C	DNLY	
Polygon # or Relevé #	Permanent Number:	· /	
Date Airphoto #	Community Name:		
	Community Number:	Occurrence Number:	
County SAN BERNARDINO	Source Code:		
USGS Quad. (7.5) or 15' CAVE MOUNTAIN (Circle one)	Quad Code: Map Index Number:	Quad Name:	
CNPS Chapter	Update: Yes	No (Circle one)	
Landowner RICHARD LYONS			
Contact Person DAVID MAGNEY			
Address PO Box 1346			
City OJAN	Zip 93024	Phone number (805) 646-6045	
Observers DAVID MAGNEY & EU	IAN LASHLY		
Relevé plot shape (square, rectangle, triangle, circle)ent Relevé plot size (length and width of rectangle, of circle (1000m ²)		All shrub plots should be 400m ² . Herb plots should be 100 or 10m ² *	
Study Plot Revisit? Yes or No (Circle one)		Photo Interpreter Community Code for Polygon	
Other polygons of same type? Yes or No Is plot repre-	sentative of whole polygon?	Yes or No (Circle one) If not, why not?	
File type: Point or Polygon (circle one) Releve: UTME	56484	<u>19 (am of pm)</u> GPS Datum (from GPS setup) (e.g. WGS 84, NAD 27) <u>NAD 83</u> <u>4</u> UTMN <u>3 8 8 位 2 2 2</u> Error ± <u>5 m</u> ft/m UTM Zone <u>115</u>	
		End: UTME UTMN	
		Topography: Macro FLAT Micro CRALKED SILT CRUST	
Elevation (ft.) <u>\ \ \ \</u> Slope (°) VEGETATION DESCRIPTION	_Aspect (°)	Topography: Macro FLAT Micro CRALKED SILT CRUST	
Elevation (ft.) <u>\ \ b b </u> Slope (°) <u></u> VEGETATION DESCRIPTION Dominant Layer <u>0-0.5 m, × 0.5-5 m, >5 m</u>	_Aspect (°)	Topography: Macro FLAT Micro CRALKED SILT CRUST See code list for italicized fields	
Elevation (ft.) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Ground enology: Ground LATE	Topography: Macro FLAT Micro CRALKED SILT CRUST See code list for italicized fields TORREY'S SALTBUSH SCRUB (ATRIBLY TORREY) MR. TORREY! ALLING	
Elevation (ft.) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	_Aspect (°) Preliminary Alliance Nam Dominant Vegetation Grow enology: GroundLATE (Early,	Topography: Macro FLAT Micro Clarked SILT Clark See code list for italicized fields DERECT'S SALTBUSH SCEUB (ATRIPER TOPRET) VAR. TORRET: ALLING up	
Elevation (ft.) <u>\OG</u> Slope (°) <u></u> VEGETATION DESCRIPTION Dominant LayerO-0.5 m, <u></u> 0.5-5 m,>5 m Stand Size<1 acre,1-5 acres, <u></u> >5 acres Phe Wetland Community Type <u>LOCTLAND</u> If Community Type = Wetland (see Artificial Keys to C	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Grow enology: Ground LATE (Early, ♦ DESERT (LANA powardin Systems and Names	Micro CRALKED SILT CRUST See code list for italicized fields DE TORRET'S SALTBUSH SCRUB (ATRIPER TORRET, VAR, TORRET' ALLING Use codes from code list) Shrub	
Elevation (ft.) <u>\OG</u> Slope (°) <u></u> VEGETATION DESCRIPTION Dominant LayerO-0.5 m, <u></u> 0.5-5 m,>5 m Stand Size<1 acre,1-5 acres, <u></u> >5 acres Pho Wetland Community Type <u>WETLEAD</u>	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Grow enology: Ground LATE (Early, ♦ DESERT (LANA powardin Systems and Names	Micro CRALKED SILT CRUST See code list for italicized fields DE TORRET'S SALTBUSH SCRUB (ATRIPER TORRET, VAR, TORRET' ALLING Use codes from code list) Shrub	
Elevation (ft.) <u>\OG</u> Slope (°) <u></u> VEGETATION DESCRIPTION Dominant LayerO-0.5 m, <u></u> 0.5-5 m,>5 m Stand Size<1 acre,1-5 acres, <u></u> >5 acres Phe Wetland Community Type <u>LOCTLAND</u> If Community Type = Wetland (see Artificial Keys to C	Aspect (?) Preliminary Alliance Nam Dominant Vegetation Ground enology: Ground <u>LATE</u> (Early, → DE5ERT (LANA owardin Systems and Names 2005 Subsystem	Micro CRALKED SILT CRUST See code list for italicized fields See code list for italicized fields Image: See code list for italicized fields See code from code list for italicized fields See code list for italicized fields Image: See code list for italicized fields See code list for italicized fields Image: See code list for italicized fields See code list for italicized fields See code list for italicized fields See code for code list for italicized fields Image: See code for code list for italicized fields Im	
Elevation (ft.) <u>\OG</u> Slope (°) <u></u> VEGETATION DESCRIPTION Dominant LayerO-0.5 m, 0.5-5 m, >5 m Stand Size <1 acre,1-5 acres, >5 acres Phe Wetland Community Type LOCTLAND If Community Type = Wetland (see Artificial Keys to C Cowardin System PALOST Distance to water (m): Vertical	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Ground enology: Ground LATE (Early, → DESERT (LANA powardin Systems and Names (2) Subsystem Horizontal	Micro CRALKED SILT CRUST See code list for italicized fields See code list for italicized fields Image: See code list for italicized fields See code from code list for italicized fields See code for code list for italicized fields See code for method fields Image: See code for method fields <td code="" fields<<="" td=""></td>	
Elevation (ft.) <u>\OG</u> Slope (°) <u>C</u> VEGETATION DESCRIPTION Dominant Layer <u>0.0.5 m</u> , <u>×</u> 0.5-5 m, <u>>5 m</u> Stand Size <u>1 acre</u> , <u>1-5 acres</u> , <u>×</u> >5 acres Phe Wetland Community Type <u>wetreware</u> - If Community Type = Wetland (see Artificial Keys to C Cowardin System <u>Paces</u> Distance to water (m): Vertical <u></u> Adjacent Alliance Location (e.g., North, South,	Aspect (?) Preliminary Alliance Nam Dominant Vegetation Groi enology: Ground <u>LATE</u> (Early, → DESERT (LANA owardin Systems and Names 2005 Subsystem Horizontal East, or West of stand)	Micro CRALKED SILT CRUST See code list for italicized fields Ne TORRET'S SALTBUSH SCRUB (ATRIBER TORRET' ALLING Use codes from code list) Shrub Tree N A Peak, Late)	
Elevation (ft.) <u>LOG</u> Slope (°) <u>VEGETATION DESCRIPTION</u> Dominant Layer <u>0.0.5 m</u> , <u>×</u> 0.5-5 m, <u>>5 m</u> Stand Size <u><1 acre</u> , <u>1.5 acres</u> , <u>×</u> >5 acres Phe Wetland Community Type <u>Source Locato</u> Cowardin System <u>PALUST</u> Distance to water (m): Vertical <u></u> Adjacent Alliance Location (e.g., North, South, So	Aspect (?) Preliminary Alliance Nam Dominant Vegetation Ground enology: Ground <u>LATE</u> (Early, → DE5EET (LANA owardin Systems and Names 24.45 Horizontal East, or West of stand) =10.465	Micro CRALED SILT CRUST See code list for italicized fields Net Torregal Solut Crust See code list for italicized fields Net Torregal Solut Crust Micro Crarted Solut Crust See code list for italicized fields Image: Solut Crust Micro Crarted Solut Crust Micro Crarted Solut Crust Solut Crust Solut Crust Solut Crust Solut Crust Micro Crust Solut Crust Solut Crust Open Crust Solut Crust Solut Crust Micro Crust Solut Crust Open Crust Solut Crust Crust	
Elevation (ft.) <u>LOG</u> Slope (°) <u>C</u> VEGETATION DESCRIPTION Dominant Layer <u>0.0.5 m</u> , <u>×</u> 0.5-5 m, <u>>5 m</u> Stand Size <u>1 acre</u> , <u>1-5 acres</u> , <u>×</u> >5 acres Phe Wetland Community Type <u>LOETLAND</u> — If Community Type = Wetland (see Artificial Keys to C Cowardin System <u>PALOS</u> Distance to water (m): Vertical <u></u> Distance to water (m): Vertical <u></u> Adjacent Alliance Location (e.g., North, South, EAST - <u>SUARDA</u> NIGLA SHEVELAND <u>LE</u>	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Grow enology: Ground LATE (Early, → DESERT (LANA powardin Systems and Names <u>CANE</u> Subsystem Horizontal East, or West of stand) 	Micro CRALKED SILT CRUST See code list for italicized fields DE CORRET'S SALTBUSH SCRUB (ATRINEY TORRY, VAR, TORRY, ALLING up	
Elevation (ft.) \OBST CRIPTION VEGETATION DESCRIPTION Dominant Layer -0-0.5 m, _X 0.5-5 m, _>5 m Stand Size _	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Ground Enology: Ground LATE (Early, → DESERT (LANA Dowardin Systems and Names 2010 € Subsystem Horizontal East, or West of stand) =1A~(CC DULC	Micro Clarked SILT CLUST See code list for italicized fields Net Colspan="2">Clarked Silt Clust See code list for italicized fields Image: Clarked Solut Clust Image: Clarked Solut Clust Shrub (use codes from code list) Shrub Shrub Clarked Solut Clust Shrub Clarked Solut Clust Shrub Shrub Clarked Solut Clust Clarked Clust Clarked Clust Clarked Clust Clarked Solut Clust Clarked Clust	
Elevation (ft.) <u>LOG</u> Slope (°) <u>VEGETATION DESCRIPTION</u> Dominant Layer <u>0.0.5 m</u> , <u>×</u> 0.5-5 m, <u>>5 m</u> Stand Size <u>1 acre</u> , <u>1-5 acres</u> , <u>×</u> >5 acres Pho Wetland Community Type <u>LOGTLAND</u> = If Community Type = Wetland (see Artificial Keys to C Cowardin System <u>PALOST</u> Distance to water (m): Vertical <u>1000000000000000000000000000000000000</u>	Aspect (°) Preliminary Alliance Nam Dominant Vegetation Ground Enology: Ground LATE (Early, → DESERT (LANA Dowardin Systems and Names 2010 € Subsystem Horizontal East, or West of stand) =1A~(CC DULC	Micro CRALED SILT CRUST See code list for italicized fields Net Colspan="2">See code list for italicized fields DE Colspan="2">Colspan="2">See code list for italicized fields Micro CRALED SILT CRUST See code list for italicized fields Image: Colspan="2">Micro CRALED SILT CRUST See code list Solution Code list) Shrub (use codes from code list) Shrub (use codes from code list) Shrub (use codes from code list)	



Atriplex torreyi Provisional Shrubland Alliance

CALIFORNIA NATIVE PLANT SOCIETY RELEVÉ FIELD FORM

Page_	2	_of Relevé #	1
Fage_	6	_ OI Releve #	

Stre Impact codes O2 O5 Increasing 2. Stable 3. Decreasing Site Impact codes O2 O5 Increasing 2. Stable 3. Decreasing Site Intensity I 3 (List codes in order, with most significant first) Site Location and Plot Description - Describing where the plot is located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake MOSANE DESERT, Located and what the main vegetation and environmental features Cast (Loonese Day Lake Mosane Deve (Located and what the main vegetation) E. Ceaves (Lake Cast (Located and Mosane Day Date (Located and Supplicity) A. Distribution (Lake A. Distribution (Lake Cast (Located and Cast (Located and Moserval Dat
Bite Intensity
THE LOCATION and Plot Description - Describing where the plot is located and what the main vegetation and environmental features inst CRONESE DRY LAKE MOSAVE DESERT. LOCATED 14 THE PLAYA BOTTOM INTERMITED WITH STANDS OF TAMMRIX RAMOSISSIMA AND SWALES OF DEAD VEGETATION. E. CRONESE LAKE 2 A DISTRIBUTARY OF THE MOSAVE DIVER AND RELIEVES INFREQUENT FLOODING. THIS PLOT 3 ON THE CENTRAL-SOUTH SIDE OF THE PLAYA SURFACE & THE ALLIANCE DOMINATES ALL 2005 OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA. DE CREDENT SURS & MESO SITE HISTORY - Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLEMUE DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED INTER METARY RANGE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED INTER METARY RANGE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED OF THE METARY RECOMENDATION EVERNS OR APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEMED ON ROOTS OF ATRIPUE DREENT VAR. THEREY - APPREENTLY BLACE TAND JACKARBEIT.
ENT (RONESE DRY LAKE MOSAVE DESERT, LOCATED IN THE PLAYA BOTTOM INTERMINED WITH STANDS OF TAMARIX RAMOSISSIMA AND SWALES OF DEAD VEGETATION. E. CRONESE LAKE 2 A DISTRIBUTARY OF THE MOSAVE RIVER AND RELIEVES INFREQUENT FLOODING, THIS PLOT 3 ON THE CENTRAL SOUTH SIDE OF THE PLAYA SURFACE & THE ALELANCE DOMINATES ALL DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA. DE CRECOTE SLEVE & MESO SITE HISTORY - Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance INTLE ANTHROPOLISMING DISTURBANCE ASIDE FROM SEVERAL DLD ROADS. INFREQUENTLY FLOODED DY THE MOSAVE RIVER - MASOR INVADATION EVENIS DELLE ACHEMICE ON ROOTS OF ATRIPLE O YEARS, SOME BIOTURBATION EVIDENT AS EXCANATED & CHEMED ON ROOTS OF ATRIPLE OPRESH' VAR THREESE APPRESHING DISTURBATION EVIDENT AS EXCANATED & CHEMED ON ROOTS OF ATRIPLE OPRESH' VAR THREESEN'S OF APPRESHILY BLACK TANDES JACKRABBIT.
STANDS OF TAMARIX RAMOSISSIME AND SWALES OF DEAD VEGETATION. E. LEONESE LAKE 2 A DISTRIBUTARY OF THE MOSAVE RIVER AND RELIEVES INFREQUENT FLOODING, THIS PLOT 3 ON THE LEWERL- SOUTH SIDE OF THE PLAYE SURFACE & THE ALLIANCE DOMINATES ALL ADJACENT TO UPLAND COMMIN DOES OF THE PLAYE THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA, OF CREDENT SLOW & MESO SITE HISTORY-Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLEMIC DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED MY THE MOTAVE RIVER - MASOR INUNDATION EVENTS OCCUR APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEMED ON ROOTS OF ATRIPLE OPREY VAR. TREESENTY BLACK TAKED JACKRABBIT.
STANDS OF TAMARIX RAMOSISSIME AND SWALES OF DEAD VEGETATION. E. LEONESE LAKE 2 A DISTRIBUTARY OF THE MOSAVE RIVER AND RELIEVES INFREQUENT FLOODING, THIS PLOT 3 ON THE LEWERL- SOUTH SIDE OF THE PLAYE SURFACE & THE ALLIANCE DOMINATES ALL ADJACENT TO UPLAND COMMIN DOES OF THE PLAYE THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA, OF CREDENT SLOW & MESO SITE HISTORY-Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLEMIC DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED MY THE MOTAVE RIVER - MASOR INUNDATION EVENTS OCCUR APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEMED ON ROOTS OF ATRIPLE OPREY VAR. TREESENTY BLACK TAKED JACKRABBIT.
2 A DISTRIBUTARY OF THE MOSAVE RIVER AND RELIEVES INFREQUENT FLOODING, THIS PLOT 5 ON THE LENTRAL-SOUTH SIDE OF THE PLAYA SURFACE & THE ALLIANCE DOMINATES ALL DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA OF CREDENT TO UPLAND COMMIN DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA OF CREDENT & UPLAND COMMIN DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA OF CREDENT & UPLAND COMMIN DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA OF CREDENT & UPLAND COMMIN DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIK RAMOSISSIMA OF CREDENT & UPLAND COMMIN DISTURBANCE AS THE HOUSE AND THE AND SEVERAL OLD ROADS. INFREQUENTLY FLOODED DY THE MOSAVE RIVER MASOR INVADATION EVENING ORLY APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEMED ON ROOTS OF ATBIPLE OPREY' VAR THREES OF APPRENTLY BLACK TAMED JACKRABBIT.
5 ON THE LEWERAL - SOUTH GIDE OF THE PLAYE SULFACE & THE ALLIANCE DOMINIATES ALL DUES OF THE PLAYE THAT ARE NOT INVADED BY TAMARIX RAMOSISSIMA. OF CREDIT SULFAND COMMAN SITE HISTORY - Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLEANIE DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED DY THE METAVE RIVER - MASOR INUNDATION EVENIS OXICE APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCANATED & CHEMED ON ROOTS OF ATRIPLE OPPREY: VAR. TREESING - APPREENTLY BLACK TAILED JACKFARBEIT.
ADTALENT TO UPLAND COMUNI- DOES OF THE PLAYA THAT ARE NOT INVADED BY TAMARIX RAMOBISSIMA. OF CREDONT SLEWAY & MESO Site History - Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLENIC DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED DY THE MOTAVE RIVER - MAJOR INVIDATION EVENTS OLLUR APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEWED ON ROOTS OF ATRIPUE OPREY: VAR. TREESING - APPREENTLY BLACK TAMES JACKPARGEIT.
Sité History - Including observations of fire scars, insect/disease damage, grazing/browsing, human disturbance ITTLE ANTHROPOLEANIE DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED BY THE MOSAVE RIVER - MAJOR INVINDATION EVENIS OLLVE APPROXIMATELY ONCE EVERY O YEARS, SOME BLOTURBATION EVIDENT AS EXCAVATED & CHEWED ON ROOTS OF ATRIPLE DREEMI VAR. TRREEMI - APPREENTLY BLACK TAILOR JACKPARGEIT.
ITTLE ANTHEOROGENIC DISTURBANCE ASIDE FROM SEVERAL OLD ROADS. INFREQUENTLY FLOODED MY THE MOSAVE RIVER - MAJOR INUNDATION EVENIS OCCUR APPROXIMATELY ONCE EVERY O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEWED ON ROOTS OF ATRIPLE DREEMI VAR TREREMI - APPRENTLY BLACK TAILED JACKPARENT.
MY THE MOTAVE RIVER - MAJOR INUNDATION EVENTS OLLUR APPROXIMATELY ONCE EVERY D YEARS, SOME BLOTURBATION EVIDENT AS EXCAVATED & CHEWED ON ROOTS OF ATRIPLE DREEMI VAR TRREEMI - APPRCENTLY BLACK TAILED JACKRABEIT.
O YEARS, SOME BIOTURBATION EVIDENT AS EXCAVATED & CHEMED ON ROOTS OF ATRIFLE ORCEY: VAR. TRREEY: - APPARENTLY BLACK TAILED JACKRABBIT.
OPERATI VAR. TREERI - APPARENTLY BLACK TAILED JACKRABBIT
sensitive Species – List species observed and Or'S OTHY 5, Estimate size and extent of focal populations
Unknown Specimens - List code, identification notes (e.g. Genus, condition of specimen) of unknowns
Caracovar Operations Elist codes to introduction notes (e.g. comes) contents or approximation of the second s
Additional Comments – Including animal observations, anthropological observations, abiotic features
BUNDANT GAS FISSURES & SLAK HOLES ON PLAYA SURFALE, WITNESSED BLACK-THROATED SPAREAN
WASHING THAT I WHITE - LEWING SPARROW UTILIZING HABITAT - ALSO BLACK TAILED JACKPARE
Surface Coarse Fragments and Soils Information (see cover class intervals-below U)
Type: Fines Gravel Cobble Stone Boulders Bedrock Litter Water Living
Descriptor: Including sand, 2mm-7.5 cm diam 7.5-25 cm diam. 25-60 cm diam. Including outcrops Organic matter covering from diam. Standing or unning water surface surf
See below): 5 3a 3b
(see below):
(see below):
(see below): 15 25
(see below): 15 25 % Cover*: 60 15 25 *note all surface fragments, non-vegetation, living stems, etc., should add up to 100% 100%
(see below): 0 15 25 % Cover*: 60 15 25 *note all surface fragments, non-vegetation, living stems, etc., should add up to 100% 100%
(see below): 15 25
see below): 15 25 % Cover*: 60 15 25 *note all surface fragments, non-vegetation, living stems, etc., should add up to 100% Cover Class Intervals: 1 (<1%), 2 (1-5%), 3a (>5-15%), 3b (>15-25%), 4 (>25-50%), 5 (>50-75%), 6 (>75%)
see below): 15 25 % Cover*: 60 15 25 *note all surface fragments, non-vegetation, living stems, etc., should add up to 100% Cover Class Intervals: 1 (<1%), 2 (1-5%), 3a (>5-15%), 3b (>15-25%), 4 (>25-50%), 5 (>50-75%), 6 (>75%)



Atriplex torreyi Provisional Shrubland Alliance

CALIFORNIA PLANT COMMUNITIES RELEVÉ FIELD FORM (PART 2) SPECIES SHEET (Revised 8/23/07)

Page_____ of Relevé #_____

Layer: T = Canopy tree, U = Low-Medium tree, S = Shrub, H = Herb, and N=Non-vascular

Cover Class Intervals: 1 (<1%), 2 (1-5%), 3a (>5-15%), 3b (>15-25%), 4 (>25-50%), 5 (>50-75%), 6 (>75%)

ayer	Vascular plant name or lichen/bryophyte cover	Collection	Final species determination or Tree dbh	Cover Class	% Cover
5	ATRIPLEX TORREMI VAR. TORREMI	cc	ATEIFLOX TOERENTI VAG. TOERENTI	Ч	35
4	AMSINCKIA	cc	AMSINCKIA TESSELLATA UND. TESSELLATA	2	2
4	SISYMBRIUM	cc	SUSIMBRIUM IRIO	2	2
	SCHIGMUS	LL	SCHISMUS BARBATUS	3a	10
н	CRYPIANTHA	cc	CRYPTANTHA ANGUSTIFILIA	2	١
	4 ¹				
-					
		Self-self-self-self-			
-					
_					
-					
_					
-					
	4				
			đ:		
	I % Cover: Overstory Conifer Overstory Hardwood ht class: Overstory Conifer Overstory Hardwood				
	ht classes: 01=<1/2m, 02=1/2-1m, 03=1-2m, 04=2-5m, 05				



Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association

Office Use Final vegetation type: Alliance: af database #: Association ad database #: Association ad Datase #: Association ad Datase #: Association ad Direct Mark Mark Mark Mark Mark Mark Mark Mark	or Office Use	and CDF W Con	ibineu	Revis	ed Fe	n Rapid Assessment and Relevé Field Form ebruary 27, 2014)
al database #:		Fins	d vegeta			
Int ID: Date: $ 4/2 2444$ Name of recorder: Daui $ 4 - 20140^{14}0^$	inal database #:	COMPLETEN .	THE REAL	B Bridli	100	Association
01001 Control tool 10001 10011 100011 10011 10011	LOCATIONAL/ENVIR	ONMENTAL DES				
01001 Control tool 10001 10011 100011 10011 10011	tand ID:			me of r	ecor	der: David L. M'agney
S name: 62 (2019). To fue the fuel of the set of the se	WP054-20140400	2/6/201	5 Or	her sur	veyo	irs: Evan Lashly
S within stand? (***) No If No, cite from GPS to stand: distance (m) bearing inclination inclinatin in	PS name: Garmy Chres	tum: NAD83 or	liter of the	Fo	r Re	levé: Bearing ^o , left axis at SW point of Long / Short side
vation: (0b) ft/m Camera Name/Photograph #'s: Nikkov Gulpx P80 - 4671, bb 73, bb 7b,		No If No, cite from	m GPS to s	tand: o	dista	nce (m) bearing ° inclination ° V5
and Size (arcs): circle, 1-5, (5) Plot Size (m) (10) 100/400 / 1000 Plot Shipe 22 X(0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *: (0) of Crete Radius 12-11 (0) posure, Actual *:		Name/Dhata		N:L	-	CIN POD - 4671 6673 6676 6699 6691 1191
pography: Macro: top upper mid lower (bottom) Micro: convex (far concave undulating ology code:	tand Size (acres): <1, 1	-5, (>5) Plot Size ($(m^2)(10)$	100/4	100	1000 Plot Shape 20 x n/m or Circle Radius 10 n/m
Surface cover: (Incl. outcrops) (-60cm diam) (7.5-25cm) (2nm-7.5cm) (Incl sand, mud) 0:0" BA Stems: <1 Litter: {1 Bedrock: O Boulder: O Stone: O Cobble: O Gravel: O Fines: ?? =100% Current year bioturbation Q Past bioturbation present? Yes / @ % Hoof punch e evidence: Yes / @ circle one) If yes, describe in Site history section, including date of fire, if known. e history, stand age, comments: Un mole(fed =	opography: Macro: to	p upper mid	lower (bottom	>	Micro: convex flat concave undulating
Current year bioturbation	6 Surface cover:	(Incl. out	tcrops) (>	-60cm di	am)	(25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)
Un molested - Geus vehicle twe toecks but of not consequence iturbance code / Intensity (L,M,H)://///	6 Current year bioturbat	tion 📿 Past b	ioturbati	on pres	ent?	? Yes / No % Hoof punch _ O
Un molested - Geus vehicle twe toecks but of not consequence iturbance code / Intensity (L,M,H)://///	ite history, stand age, con	mments:				
HABITAT AND VEGETATION DESCRIPTION Description cee DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T3 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) rub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) rb: H1 (<1" dbh), T2 (1-6" dbm), T3 (6-11" dbh), T3 (6-11" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) rub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) rb: H1 (<21" plant hL), H2 (>12" hL) Desert Riparian Tree/Shrub: 1 (<2ft. stem hL), 2 (2-10ft. hL), 3 (10-20ft. hL), 4 (>20ft. hL) sett Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) % NonVasc cover: % Vase Veg cover: Cover: Conifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: ght classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous:			tive t	naks	b	at of not consequence
HABITAT AND VEGETATION DESCRIPTION Description cee DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T3 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) rub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) rb: H1 (<1" dbh), T2 (1-6" dbm), T3 (6-11" dbh), T3 (6-11" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) rub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) rb: H1 (<21" plant hL), H2 (>12" hL) Desert Riparian Tree/Shrub: 1 (<2ft. stem hL), 2 (2-10ft. hL), 3 (10-20ft. hL), 4 (>20ft. hL) sett Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) % NonVasc cover: % Vase Veg cover: Cover: Conifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: ght classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous: gight classes: Onifer tree / Hardwood tree:/ Regenerating Tree: Shrub: Herbaceous:						
ee DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) rub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) rb: H1) <12" plant hL), H2 (>12" hL) Desert Riparian Tree/Shrub: 1 (<2ft. stem hL), 2 (2-10ft. hL), 3 (10-20ft. hL), 4 (>20ft. hL) seet Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) % NonVasc cover: % Vasc Veg cover: Cover: Conifer tree / Hardwood tree: / Regenerating Tree: Shrub: Herbaceous: ight classes: 01= / Regenerating Tree: Shrub: Herbaceous: ight classes: 01= / Regenerating Tree: Shrub: Herbaceous: ight classes: 01= 02=1/2-1m 03=1-2m 04=2-5m 05=5-10m 06=10-15m 07=15-20m 08=20-35m 09=35-50m 10=>50m eeies, Stratum, and % cover. Stratum categories: T=Tree, S = Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular. cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%. /				_/	13	_/ / / "Other" /
cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%. Ta Species Stutzia coville: Stutzia coville: C Strata Species Stutzia coville: C Strata Species C Strata Species C Strata Species C C Strata Species Interpretation of Stand	Herb: HI) <12" plant ht.), H Desert Palm/Joshua Tree: % Cover: Conifer tree Height Class: Conifer tree Height classes: 01=<1/2m	I2 (>12" ht.) Def t: 1 (<1.5" base diameter tere: tere / Hardwood tree: tere: 02=1/2-1m 03=1-2tr	esert Rip: or), 2 (1.5-0 <u>0</u> / <u>1</u> m 04=2-5	arian Tu 5" diam.) im05=3	ree/5 , 3 (= Rege Reg 5-10	Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.) >6" diam.) % NonVasc cover:% Vasc Veg cover: enerating Tree: Shrub: Herbaceous: generating Tree: Shrub: Herbaceous: m 06=10-15m 07=15-20m 08=20-35m 09=35-50m 10=>50m
ta Species % cover C Strata Species % cover C Lepidium nitidum 10 10 01 10	pecies, Stratum, and %	cover. Stratum cate	gories: T	=Tree, S	S = S	Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular.
Stutzia coville; 15 14 01 Lepidium nitidum 10 16 01 Cressa -truxilensis 5 01		ence: <1%, 1-5%, >5-	15%, >15	% cover	-50%	6, >30-73%, 73%.
Lepidium nitidum 10 16 01 Cresse -truxilensis 5 01 Insual species:	Stutzia Co	villei	15			
Crésse fruxilensis 5 oi				10	01	
. INTERPRETATION OF STAND		ril merc		5	01	
. INTERPRETATION OF STAND	Lepidium mit	x1100313				
. INTERPRETATION OF STAND	Lepidium mit					
. INTERPRETATION OF STAND	1 Lepidium mit					
	Lepidium mit					
Id-assessed vegetation alliance name: Stutzid Covillei - Lepidium nitidum Provisional Allince	A Lepidium nit A Cressz -trux Jnusual species:					
	Lepidium nit A Cressz -trux			Cheeden a		
eld-assessed association name (optional): Stutz: 2 covillei - Lepidiun nitidum-Cress 2 trupellousis Assoc	Lepidium mit A Cressz - frui Juusual species: II. INTERPRETATION	OF STAND alliance name:	stut:	eid (.ov	illei - Lepidium nitidum povisional Allimce
Ijacent alliances/direction: A-triplex torregi, Suseda nigra - Ariplex torregi	Lepidium mit A Cressz - frux Juusual species: II. INTERPRETATION Field-assessed vegetation	OF STAND alliance name: name (optional):	stutz	12 0	ive	illei - Lepidium nitidum povisional Allimce Vei - Lepidium nitidum Cosse truxiliensis Asse
mfidence in alliance identification: L M (H) Explain: new Mizale /2150 (21)	Lepidium mit A Cressz - frux Juusual species: II. INTERPRETATION Field-assessed vegetation Field-assessed association	OF STAND alliance name: name (optional): ion:A_t_n_ex	stutz	iz a i, s	ive vi	illei - Lepidium nitidum provisional Allimce Vei - Lepidium nitidum-Cress > truxilionsis Asso ved > nigra - Aniplex toviezi
	A Lepidium mit A Cressz - frux Juusual species:	OF STAND alliance name: name (optional): ion:t_pex entification: L M	stutz forrey 1 (H)	i <u>z</u> i, S Explain	143 143	Vei - Lepidium nitidum porisional Allimce Vei - Lepidium nitidum Cress truxilionsis Asse ved 2 nigra - Ariptes torrezi new allizare / 2550 ci 2th M
= play2 bottom - sometimes flooded = photo names each preceded by: 20140408-DSCN	Lepidium mit A Cressz - frux Juusual species:	OF STAND alliance name: name (optional): ion: + 10 + 2 X entification: L M f Shrub - Th	stutz forrey 1 (H) ree -	i <u>z</u> i, S Explain	142 142	Vei - Lepidium nitidum porisional Allimce Vei - Lepidium nitidum Cress truxilionsis Asse ved 2 nigra - Ariptes torrezi new allizare / 2550 ci 2th M



Stutzia covillei-Lepidium nitidum-Cressa truxillensis Provisional Herbaceous Association

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form RELEVE SPECIES SHEET (Revised 2/27/2014)

Page 2 of Polygon/Stand #: W/204-20140408

Stratum categories: T = Tree, S = Shrub, H = Herb, E = SEedling, A = SApling, and N=Non-vascular	
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%	•

8 tochly 	UCSB
и и и и и и и	ч и л ч
и и и и и	и и и
4 14 14 14 14 14 14 14 14 14 14 14 14 14	и л ч
и ч и и	4 4
" " "	u v
и и	u
u u	
u u	
u	ور
4.000	EL
61	
	ü
	<u>.</u>
	2
	2