

APPENDIX F-I.6

Mojave-Coyote

Huffman-Broadway Group, Inc.
Environmental Consultants



**Investigation of the Presence of Wetlands and
Other Waters of the United States
DesertXpress Project
HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds
San Bernardino County, California**



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Prepared for

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1.0 INTRODUCTION

1.1 Project Purpose and Scope of Work

DesertXpress Enterprises, LLC (DXE) is proposing to construct and operate a dedicated two-tracked high speed passenger railway and associated operations and maintenance facilities between Victorville, California, and Las Vegas, Nevada (DesertXpress Project; Exhibit A, Figure 1). A Draft Environmental Impact Statement was issued for the project in March of 2009 and the Final EIS is nearing completion. A Supplemental Draft EIS has been prepared and will be issued shortly to address certain modifications to the proposed alignment and station locations made by the Applicant, DXE, in response to various comments made on the Draft. The U.S. Department of Transportation, Federal Railroad Administration (FRA) is the lead agency responsible for preparing the project Environmental Impact Statement (EIS).

In preparation for the permit phase of the project, DXE has retained Huffman-Broadway Group, Inc. (HBG) to investigate the presence of wetlands and other waters potentially subject to Corps and EPA regulation under Section 404 of the Clean Water Act (CWA) along the DesertXpress Project's preferred and alternative alignments and study areas for the stations and ancillary facilities.

For the purpose of the jurisdictional delineation study the proposed DesertXpress Project has been divided into six areas using the USGS HUC 8¹ level of watershed classification. The scope of this report is to evaluate the presence or absence of wetlands and waters potentially subject to Corps CWA jurisdiction within the proposed DesertXpress Project alignments and facilities located within the HUC 8 Mojave and Coyote - Cuddeback Lakes watersheds (Exhibit A, Figure 2).

This study was conducted in accordance with *Code of Federal Regulations* (CFR) definitions of jurisdictional waters, the Corps' 1987 *Wetlands Delineation Manual*, the Corps' 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, and supporting guidance documents. The remaining portions of Section 1.0 provide project contact information, describe the location of the Study Area and provide technical details regarding the general environmental conditions found within the Study Area, including relevant technical information from the Draft EIS regarding water resource data and biological and cultural resource information. Section 2.0 provides regulatory background information and details regarding the technical criteria and types of field indicators evaluated for during

¹ HUC = U.S. Geological Survey (USGS) Hydrologic Unit Code. The Hydrologic Unit system is a standardized watershed classification system developed by USGS in the mid 1970s. Hydrologic units are watershed boundaries organized in a nested hierarchy by size. They range in size from national regions, to the smaller cataloging units (HUCs), which are roughly equivalent to local watershed.

the study. Section 3.0 provides a detailed description of the methods used during this investigation. Section 4.0 provides a description of technical findings and Section 5.0 describes the types of areas found that potentially may be subject to Corps CWA jurisdiction. Section 6.0 is a Clean Water Act jurisdictional analysis using the Rapanos Guidance.

HBG is seeking, on behalf of DXE, a Preliminary Jurisdictional Determination pursuant to applicable Corps guidance documents.

1.2 Contact Information

<i>Project Owner Contact</i>	<i>Applicant's Agent & Wetland Regulatory Scientist</i>
<p>DesertXpress Enterprises, LLC 6750 Via Austi Parkway Suite 250 Las Vegas, NV 89119</p> <p><u>Contact:</u> Tom Stone (702) 491-8940 tstone@transmaxgroup.com</p>	<p>Huffman-Broadway Group, Inc 828 Mission Avenue San Rafael, California 94901</p> <p><u>Contact:</u> Terry Huffman, Ph.D. (415) 925-2000 thuffman@h-bgroup.com</p>

1.3 Study Area

The Study Area for this investigation is defined as the area where potential ground disturbing components of the proposed project would occur based on the alternatives identified and analyzed in conjunction with the EIS and Supplemental EIS prepared for the DesertXpress Project. The Study Area extends approximately 105 miles eastward from the proposed Victorville station to the Halloran Summit east of the town of Baker (Exhibit A, Figure 3).

1.4 Environmental Setting

The Study Area encompasses those portions of the proposed DesertXpress Project alignments and facilities between Victorville, California, and Las Vegas, Nevada, that lie within the Mojave Watershed (HUC-8 18090208) in San Bernardino County. The alignment alternatives pass through, from west to east, the following HUC-12 watersheds:

- Bell Mountain Wash
- Brisbane Valley-Wild Wash
- Town of Lenwood-Mojave River
- Town of Johnstons Corner
- 180902081004
- City of Barstow- Mojave River
- Odessa Canyon
- Sunrise Canyon-Mojave River
- Lake Jodie-Mojave River
- Dolores Lake
- Manix Wash
- Wilhelm Wash-Mojave River
- Afton Canyon-Mojave River
- West Cronise Lake
- East Cronise Lake
- 180902082502
- 180902082504
- Oasis of Mara-Soda Lake
- Otto Mountain-Silver Lake
- Hytens Well
- Halloran Spring-Halloran Wash

Figure 4 in Exhibit A shows the boundaries of these HUC 12 watersheds. All the above HUC-12 watersheds are within the Mojave Watershed (HUC-8) exception for Dolores Lake: I-15 straddles the boundary between the Dolores Lake watershed, which lies within the Coyote-Cuddeback Lakes HUC-8 watershed, and the Lake Jodie-Mojave River HUC-12 watershed.

The Study Area includes segments of the proposed alignment alternatives and facilities described in the Draft and Supplemental Environmental Impact Statement as Segments 1 and 2 and part of Segment 3 Alternative 3B. Segment 1 is the portion of the alignment from Victorville through Barstow. Segment 2 extends from the east side of Barstow through Yermo. The part of Segment 3 Alternative 3B that is within the Mojave Watershed is the portion of the alignment from Yermo eastward through Baker to Halloran Summit (see Figure 1 in Exhibit A). The DesertXpress route through the Mojave Watershed generally follows the I-15 right of way.

The principal hydrologic feature in the study area is the Mojave River. From its headwaters in the San Bernardino Mountains, the Mojave River, via both surface and subsurface flow, crosses the watershed for approximately 120 miles before terminating at Silver Dry Lake near Baker (or Soda Lake, in drier years). Aside from intense storm events, the Mojave River channel is typically dry downstream of the Mojave Forks Dam east of Hesperia (about 18 miles south of Victorville) except where groundwater is forced to the surface by geologic structures.

1.4.1 Topography

The Study Area is within the Mojave Desert Geomorphic Province. The Mojave Desert Geomorphic Province is characterized by mountain ranges and hills of moderate relief that are partially buried and separated by broad alluviated basins. .

The DesertXpress Project alternatives and facilities through the Study Area begins at an approximate elevation of 3,000 feet msl in Victorville, before descending to Barstow at about 2,100 feet msl. From Barstow, the alignment extends through the Mojave River Valley, Cronise Valley, the Soda Mountains and Soda Lake to Baker at an elevation of about 920 feet msl, then climbs the Halloran Springs Valley to Halloran Summit at an elevation of approximately 4,100 feet msl.

1.4.2 Land Use

Except for an approximately 8-mile diversion near Yermo east of Barstow, the proposed DesertXpress Project alignment alternatives through the Mojave Watershed is in the I-15 right of way on the north side of the freeway. In much of the Study area, the DesertXpress Project preferred alignment is within the interstate I-15 right of way / transportation corridor. It extends from the station north of Victorville through the towns of Lenwood (a Barstow suburb), Barstow, Yermo, and Baker, primarily on the north side of I-15 to Halloran Summit.

1.4.3 Geology and Soils

This section taken from the Draft EIS describes the geology within each segment of the Study Area. Tables list the geologic unit type and the age and description of geologic units mapped within each segment.

Segment 1 – Victorville through Barstow

Segment 1 is underlain by both alluvial sediments and older Mesozoic age granitic, volcanic, and metavolcanic rocks. The alluvial deposits include younger Holocene wash sediments (Qw) and valley sediments (Q, Qa), older Pleistocene valley and fan sediments (Qo, Qoa, Qod), and alluvial fanglomerate deposits (Qof). Underlying these alluvial sediments at a relatively shallow depth (and exposed in some places) are granitic quartz monzonite, hornblende diorite-gabbro and granite (KJqm, Qm, Gqm, Hd) and porphyritic metavolcanic rock (Mzv, Lp, Pf).

Geologic Unit (Symbol[s])	Geologic Age	Description - Soils
Younger alluvial valley sediments (Q, Qa)	Holocene	Unconsolidated, poorly sorted alluvial silt, sand and gravel
Younger alluvial river/wash deposits (Qw)	Holocene	Alluvial wash deposits.
Older alluvial valley and fan sediments (Qo, Qoa, Qod)	Pleistocene	Weakly consolidated dissected alluvial gravel, sand, and silt derived mainly from granitic and metamorphic rocks of San Gabriel /San Bernardino Mtns.
Older alluvial fanglomerate (Qof)	Pleistocene	Cobble fanglomerate and gravel derived from metavolcanic rocks.
Quartz Monzonite (KJqm, Qm, Gqm, Hd)	Cretaceous - Late Jurassic	Intrusive igneous (Granitic) rock, quartz monzonite, hornblende diorite-gabbro, granite.
Metavolcanic rocks (Mzv, Lp, Pf)	Mesozoic	Porphyritic volcanic and metavolcanic rocks. Includes Sidewinder Volcanic Series (Bowen, 1954), and Oro Grande (Hershey, 1902)

Source: Ninyo & Moore, 2007.

Segment 2 – East of Barstow through Yermo

Segment 2 Alternative 2C is on the north side of I-15 near but not within the freeway right of way. Three geologic units that underlie the westernmost portion of this: 1) Mojave River sediments along the southeast and north banks of the river, 2) an exposure of sedimentary and volcanic rocks east of Barstow, and 3) valley alluvium sediments in the small drainage valley west of Yermo.

Just east of Barstow, Segment 2 would cross an area of exposed Tertiary age, volcanic and sedimentary rocks (Mc, Mi, Tt, Tat, Tls, Td, Ts, Tsl). In the small drainage valley east of this rock exposure, Segment 2 crosses alluvial deposits consisting of young fan and valley sediments (Q, Qa), and a clay unit deposited from a playa or small lake bed (Qc, Ql). Northeast of Yermo, soils are underlain by older alluvium (Qo, Qoa) and fan gravel (Qf) on the southeast flank of the Calico Mountains. This older alluvium and fan gravel mantles the formational Tertiary volcanic and sedimentary rock that comprises the

Calico Mountains.

Geologic Unit (Symbol[s])	Geologic Age	Description - Soils
Younger alluvial valley/fan sediments (Q, Qa)	Holocene	Unconsolidated, poorly sorted alluvial silt, sand, and gravel sediments.
Younger alluvial valley sediments (Ql, Qc)	Holocene	Lake deposits, clay of small playas.
Younger alluvial fan sediments (Qf)	Holocene	Fan gravel.
Older Alluvial Sediments (Qo, Qoa)	Pleistocene	Dissected alluvial fan material composed of gravel, sand, and some boulders.
Volcanic and Sedimentary Rocks (Mc, Mi, Tt, Tat, Tls, Td, Ts, Tsl)	Tertiary	Miocene continental deposits and intrusive rocks; tuff breccia; dacite breccia; limestone, shale, and tuff; dacite; interbedded shale and sandstone

Source: Ninyo & Moore, 2007.

Segment 3 Alternative 3B– Yermo to Halloran Summit

Yermo to Baker: Southwest of Manix, soils are underlain primarily by younger alluvial valley and fan sediments (Q, Qa, Qal, Qf), and partially by older conglomerate and gravel alluvium in (Qof, QT). Northeast of Manix, soils are underlain by Manix Lake sand and silt sediments (Qms, Qol), younger river sand (Qrs, Qw) from tributary channels of the Mojave River, and by an area of older alluvium. Further northeast, the alignment continues through the Mojave River Valley and is underlain by younger valley alluvial sediments (Qal) and lacustrine (lake) deposits (Ql).

At the northeast end of the river valley, soils are underlain by older Pliocene-Pleistocene sediments of varying composition (Qc, QP). To the east, on the south side of the Cronise Mountains, soils are primarily underlain by younger alluvial sediments (Qal) and partially by exposures of Tertiary-Mesozoic age granitic rocks (gr, gr-m, TKq). A concealed, potentially active, unnamed fault is located skew to the alignment in the Cronise Valley.

In the Soda Mountains area between the Cronise Valley and Baker, soils are underlain by younger valley and alluvial fan deposits (Qal), older Pliocene-Pleistocene sediments of varying composition (Qc, QP), and by Tertiary age volcanic and sedimentary rocks (Tv, Tc). Exposures of Tertiary-Mesozoic age granitic rocks (gr, TKq) are found on the southeast side of the proposed alignment. The geologic maps indicate that Segment 3 Alternative 3B crosses the potentially active Baker fault on the east side of the Soda Mountains approximately 6 miles southwest of Baker. In Baker, the segment is underlain by younger lacustrine Soda Lake Bed sediments (Ql).

Baker–Halloran Summit: From Baker, Segment 3 Alternative 3B ascends a broad, sloping alluvial fan that flanks the southwest side of the Halloran Summit. Between Baker and Halloran Springs, the segment is underlain by younger valley and alluvial fan deposits (Qal).

The Halloran Summit area is comprised of a large body of Tertiary-Mesozoic age granitic rock (gr, TKq) that is overlain by younger Pleistocene age volcanic basalt flows (Qpv, Qeb). The granitic rock body is intruded into an older, Precambrian metamorphic rock unit comprised of gneiss (epC, pCg) on the west side of the Halloran Summit. Segment 3 Alternative 3B is underlain by the gneissic rock and younger alluvium (Qal) on the west side of the summit. Younger alluvium is mapped at the Halloran Summit pass but is underlain at relatively shallow depth by granitic and/or volcanic rock. The inactive Halloran fault runs parallel to I-15 in this area.

Geologic Unit (Symbol[s])	Geologic Age	Description - Soils
Younger alluvial valley and fan sediments (Q, Qa, Qal)	Holocene	Unconsolidated valley alluvial deposits of silt, sand, and gravel; alluvial fan deposits.
Younger alluvial river/wash sediments (Qw, Qrs)	Holocene	Alluvial wash sediments and river sand.
Younger alluvial fan sediments (Qf)	Holocene	Fan gravel.
Younger lacustrine deposits (Ql)	Holocene	Lake and playa sediments including clay, silt, and fine sand; Soda Lake bed sediments.
Older alluvial valley sediments (Qof, Qt)	Pleistocene	Fanglomerate and gravel (Qof); continental deposits of gravel, sand, silt, and clay (Qt).
Older lacustrine deposits (Qms, Qol)	Pleistocene	Manix Lake bed sediments (silt and fine sand)
Volcanic rocks (Qpv, Qeb)	Pleistocene	Undifferentiated volcanic basalt flows.
Older alluvial deposits (Qc, Qp, Qo, Qoa, Qt)	Pleistocene And Plio-Pleistocene	Dissected alluvial gravel, sand, and silt; continental terrace deposits of gravel, sand, silt, and clay.
Volcanic and sedimentary rocks (Tv, Tc)	Tertiary	Undivided continental sedimentary rocks and volcanic rhyolite flows.
Granitic rocks (Gr, Tkq)	Tertiary/ Mesozoic	Intrusive igneous rock; includes teutonia quartz monzonite of Hewett, 1956.
Granitic and metamorphic rock (Gr-M)	Mesozoic	Granitic and metamorphic rock.
Marine sedimentary and meta-sedimentary rocks (Cm)	Paleozoic - Mississippian	Limestone and dolomite; includes Monte Cristo limestone of Hewett, 1956.
Marine sedimentary and meta-sedimentary rocks (Ds, Dsv, Dsi)	Paleozoic – Devonian	Sultan limestone of Hewett, 1956, including Valentine limestone and ironside Dolomite members.
Marine sedimentary and meta-sedimentary rocks (Ip/Ls, Deg, Degu, Degb1)	Paleozoic – Cambrian And Devonian	Dolomite and Limestone with thin interbedded Shale and Sandstone; Goodsprings Dolomite and Carbonate Rocks including Breccia of Hewett, 1956.
Metamorphic rocks (Epe, Peg, Pega, Pegc Pegb)	Precambrian	Undifferentiated injection gneiss, schist, granitic gneiss, granite augen gneiss complex.
Granitic rocks (Pegr)	Precambrian	Undivided syenite, shonkite, granite stocks, and dikes, including carbonate veins and irregular bodies in Mountain Pass area.

1.4.4 Seismology

The three potentially active fault zones described below have had a dominant role in forming the present seismic environment of the region. The boundaries of earthquake fault zones are based on the presence of well-defined, active fault traces. Zone boundaries are typically 500 to 660 feet away from the fault traces and are positioned to accommodate imprecise locations of the faults and the possible existence of active branches. The alignment would cross only one of these fault zones, the Eastern California/Mojave Shear Zone.

Eastern California/Mojave Shear Zone

The Eastern California/Mojave Shear Zone (ECMSZ) is an approximate 50-mile-wide zone of tectonic deformation that crosses the central Mojave Desert and is characterized by numerous northwest trending, right lateral, strike-slip faults roughly centered on Barstow. The ECMSZ is estimated to accommodate between 9 and 23 percent of the relative motion between the Pacific and North American tectonic plates.² The alignment would cross the ECMSZ in Segments 1, 2, and 3, between Helendale and Manix, California. Several moderate to large earthquakes have ruptured faults within this region, including the M_{\max} 7.3 Landers earthquake (6/28/1992), and the M_{\max} 7.1 Hector Mine earthquake (10/16/1999). The Landers earthquake produced an approximate 53-mile-long surface rupture that averaged approximately 10 to 13 feet of slip and occurred along portions of the Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock faults.³ These surface rupture areas occurred south of the Study Area.

On March 18, 1997, a M_{\max} 5.3 earthquake occurred along the Calico fault approximately 12 miles east-northeast of Barstow. This earthquake was the last aftershock of the Landers earthquake of 1992 to reach M_{\max} 5. Although there was no surface rupture attributed to this earthquake, the Calico fault had exhibited some triggered slip during the 1992 Landers event.⁴

San Andreas Fault Zone

The San Andreas Fault zone has long been recognized as the dominant seismotectonic feature in California. The fault is located approximately 21.3 miles southwest of the southwest end of the alignment. Two of California's three largest historic earthquakes occurred along the San Andreas: the 1906 San Francisco earthquake (approximately 400 miles from the study area) and the 1857 Fort Tejon earthquake (the closest surface rupture occurred in Wrightwood, approximately 60 miles from the southwest end of the alignment). The San Andreas is a right lateral strike-slip fault, capable of producing earthquakes in excess of M_{\max} 7.5.

Geologists infer that the segment of the San Andreas closest to the study area is currently locked and is accumulating substantial amounts of strain in response to the stresses

² Southern California Earthquake Center, 2007, Faults of Southern California: <http://www.scecdc.scec.org/faultmap.html>.

³ County of San Bernardino, 2005d, Safety Background Report, General Plan, Sections 7.1-7.1.2.1

⁴ County of San Bernardino, 2005d, Safety Background Report, General Plan, Sections 7.1-7.1.2.1

generated by the relative movement between the Pacific and North American plates. The available geologic data indicate that this strain is released during infrequent major earthquakes (M_{\max} 7 to 8+ events) rather than by more frequent smaller magnitude earthquakes.

Garlock Fault

The Garlock fault is a prominent fault in southern California and crosses the northern part of the Mojave Desert province. The east end of the fault is approximately 20 miles north-northwest of Segment 3 Alternative 3B. Although this fault has not produced large earthquakes in recorded history, geomorphic and stratigraphic evidence indicates such events occurred in earlier eras. A total of about 30 to 40 miles of left-lateral strike slip has been documented across this fault. The Garlock fault is considered capable of generating about a M_{\max} 7.5 earthquake.

1.4.5 Biological Resources

Vegetation Community Types

Using reconnaissance-level surveys, ten vegetation communities were identified and mapped in the study area, following the Central Mojave Vegetation Database classification. This list is based on reconnaissance-level surveys performed for the Draft and Supplemental EIS in consultation with USFWS.

Vegetation Community Type	Sensitive Community	Associated Species	Description	Occurrence in Study Area
Shrub-dominated communities				
Creosote Bush Shrubland	No	A group of alliances: creosote bush may be the only shrub, other alliances are characterized by shared dominance with white bursage and/or brittlebush; also desert holly, saltbush species, and many other shrubs may be present in low densities	Various substrates and settings, including: sandy substrates, alluvial fans, bajadas; may occur on disturbed sites; 0-1,700 meters	Very common
Desert Holly Shrubland	No	Creosote bush, other saltbush species, white bursage, brittlebush	The most drought-tolerant scrub, occurring on rocky slopes, bajadas, and playa edges; -75 – 1,400 meters	Uncommon
Saltbush Complex	No	Other saltbush species, creosote bush, white bursage, rabbitbrush	Includes several alliances dominated by different saltbush species; many substrates and settings: sandy soils, washes, playas, playa edges, often alkaline sites; -75 – 1,400 meters	Very common
Mesquite Shrubland (Intermittently Flooded)	Yes	Saltbush species, sandbar willow, iodinebush	Rarely flooded edges of washes, floodplains, playa edges; up to 1,100 meters	Rare; occurs at a few sites west of Mountain Pass

Vegetation Community Type	Sensitive Community	Associated Species	Description	Occurrence in Study Area
Other Land Cover Types				
Barren (disturbed, graded)	No	May have sparse growth of mostly non-native species, especially invasive annual grasses	Various substrates and settings	Common along the median and shoulders of Interstate 15
Agriculture (alfalfa, grazing)	No	Alfalfa, a variety of pasture grasses	Generally flat alluvial areas	Occurs at the western end of the alignment east of Victorville
Rural development	No	N/A	Usually flat to gently sloping sites, valley floors	Predominantly at the western end of the alignment east of Victorville
Urban	No	N/A	Usually flat to gently sloping sites, valley floors	Cities of Victorville, Baker, Barstow, including urbanized areas adjacent to these communities

Source: Jones and Stokes, 2008.

Segment 1 – Victorville through Barstow

Segment 1 crosses relatively undisturbed creosote bush scrub and saltbush scrub. The alignment lies within the I-15 right of way where vegetation is barren. Federal- and state-listed threatened and endangered species having the potential to occur in Segment 1 are identified in the table below:

Biological Resource	Status Federal/State	Description	Potential for Occurrence in Segment 1
Special-Status Wildlife Species			
Desert tortoise	T/T	California Natural Diversity Data Base (CNDDDB) identified suitable habitat in the project study area and several tortoises were observed near project study area during 2007 surveys. Suitable habitat occurs in desert scrub habitats.	Yes
Least Bell's vireo	E/E	One CNDDDB occurrence within 4 miles of project study area. No suitable nesting habitat within project study area.	No
Southwestern willow flycatcher	E/E	No suitable nesting habitat within project study area.	No
Western burrowing owl	--/T	Several occurrences within 10 miles of project study area and one owl pellet observed during desert tortoise surveys in 2007, though no owls observed. Suitable habitat occurs throughout project study area in desert scrub habitats.	Yes
Western yellow-billed cuckoo	C/E	No suitable nesting habitat within project study area.	No
Mohave ground squirrel	--/T	Several CNDDDB occurrences within 10 miles of the project study area. Habitat assessment indicates suitable habitat occurs in project study area.	Yes

Segment 2 – East of Barstow through Yermo

Segment 2 would cross relatively undisturbed creosote bush and saltbush scrub habitats and a dry lakebed. Federal- and state-listed threatened and endangered species having the potential to occur in Segment 2 are identified in the table below:

Biological Resource	Status Federal/State	Description	Potential for Occurrence in Segment 2
Special-Status Wildlife Species			
Desert tortoise	T/T	Desert tortoises observed during 2007 surveys. Suitable habitat occurs throughout project study area.	Yes
Desert bighorn sheep	--/ FP	CNDDDB records indicate suitable habitat within 10 miles of project study area. Suitable habitat does not occur within project study area.	No
Mohave ground squirrel	--/T	Several CNDDDB occurrences within 10 miles of project study area. Habitat assessment indicates suitable habitat in areas with desert scrub.	Yes
Special Management Lands			
Desert Tortoise Critical Habitat		Superior-Cronise Unit	Yes

Segment 3 Alternative 3B– Yermo to Halloran Summit

Yermo to Baker: The alignment would cross disturbed habitats, creosote bush scrub, and saltbush scrub. Just south of Baker, the alignment would pass adjacent to Soda Dry Lake.

Baker to Halloran Summit: From Baker, Segment 3 Alternative 3B would ascend a broad, sloping alluvial fan that flanks the southwest side of the Halloran Summit, and would cross disturbed habitats, creosote bush scrub, and saltbush scrub.

Resources having federal or State of California special status are listed below:

Biological Resource	Status Federal/State	Description	Potential for Occurrence in Segment 3 Alternative 3B
Sensitive Plant Communities & Wetlands			
Mesquite bosque	-/S	Three occurrences mapped in the Mojave River Wash at Cronise Valley.	Yes
Special Status Wildlife Species			
Mojave tui chub	E/E	Known to occur in the Mojave River. Though not directly in the project study area, drainages flowing under I-15 could carry sediments and contaminants into the Mojave River.	Yes
Desert tortoise	T/T	Desert tortoises observed during 2007 surveys. Suitable habitat occurs in washes crossed by I-15.	Yes

Biological Resource	Status Federal/State	Description	Potential for Occurrence in Segment 3 Alternative 3B
Golden Eagle	PR/ FP	No CNDDDB occurrences within 10 miles of project study area. Suitable nesting habitat in rocky habitat	Yes
Desert bighorn sheep	--/ FP	CNDDDB records indicate suitable habitat within 10 miles of project study area. Suitable habitat does occur within project study area.	Yes
Special Management Lands			
BLM Area of Critical Environmental Concern		Cronise Basin	Yes
BLM Area of Critical Environmental Concern		Halloran Wash	Yes
Desert Tortoise Critical Habitat		Ivanpah Unit; Superior-Cronise Unit	Yes

1.4.6 Climate

The project is in an arid high desert region with average monthly temperatures ranging from the 30s to the 90s in Fahrenheit (°F). The area is characterized by short, mild winters and long, hot summers. Precipitation in the area is limited, which influences hydrology within the area. The Mojave Desert has an arid to semi-arid climate; the area is in the rain shadow of 5,000 to 11,000-foot high mountains west of the area. About 2/3 of average annual precipitation occurs between November and March, when winter storms move east from the Pacific Ocean. Precipitation amounts are higher in the mountains, ranging from about 4 inches annually in lower areas, with precipitation over 12 inches annually in the highest elevations. In the higher mountains, winter precipitation may occur as snow. Precipitation in the summer comes as short, intense, and localized thunderstorms; much of this rain is lost to evapotranspiration, particularly if the storm is a small one. The farther east in the Mojave, summer storms are more frequent, as they arrive from Arizona to the south (NPS 1999).

The Western Regional Climate Center (2008) provides climatological data summaries for weather stations throughout the western United States; data for the Victorville weather station from July 1948 through June 2007 are presented below:

Monthly Climate Summary for Victorville, CA (July 1948–June 2007)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max Temp (°F)	59	62	67	74	82	92	98	97	91	81	68	59	77
Average Min Temp (°F)	30	34	37	42	48	55	61	60	55	45	36	30	44
Average Precipitation (in)	1.0	1.0	0.8	0.3	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.7	5.5
Average Snowfall (in)	1.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	1.4

Average annual precipitation for towns in the Study Area is summarized below:

Rainfall Station Location	Rainfall Record - Years	Range Of Annual Rainfall Totals (Inches)
Victorville	1939 To 2006	1.23 To 15.98
Barstow	1960 To 2006	1.11 To 11.27
Yermo	1961 To 2006	0.36 To 8.03
Baker	1956 To 2006	0.40 To 7.52

1.4.7 Hydrology

Mojave Watershed

The following is excerpted from the Lahontan Regional Water Quality Control Board Watershed Management Initiative (2005), online at

http://www.swrcb.ca.gov/rwqcb6/water_issues/programs/watershed_management:

The Mojave Watershed encompasses approximately 4,500 square miles and is located entirely within San Bernardino County. . . .

The primary geographic and hydrologic feature of the watershed is the Mojave River. The headwaters of the Mojave River are in the San Bernardino Mountains, which annually receives greater than 40 inches of precipitation at its highest elevations. Much of the winter precipitation in the San Bernardino Mountains falls in the form of snow that provides spring recharge to the Mojave River system. Historically, the annual recharge from the headwaters is approximately 75,000 acre-feet. The Mojave River channel, through both surface and subsurface flow, transects the watershed a linear distance of approximately 120 miles to its terminus at Silver Dry Lake near the Community of Baker. Aside from seasonal intense storm events, the Mojave River channel is typically dry downstream of the Mojave Forks Dam except in select locations where ground water is forced to the surface by geologic structures. . . .

Typical of southwestern arid environments, the Mojave Watershed has limited water resources. Surface water from the headwaters in the San Bernardino Mountains quickly percolates into the porous sands of the young Mojave River alluvium. Thus, ground water is the primary source of water supply in most of the watershed. . . .

Today, most of the Mojave River channel is dry downstream of Victorville except during flood events. Historically, some areas contained water surface water throughout most of the year. Former “watering holes” for the Mormon and Spanish Trails were located along the Mojave River, which

were primarily located where faults or other geologic structures force ground water to the surface. Due to years of overdraft conditions, the ground water table has been lowered to a point where most areas no longer contain surface water.

Construction of the I-15 diverted many of the natural drainages along the ROW to culverts under the highway.

Segment 1 – Victorville through Barstow

Water Resources: The major hydrological resource within the project study area for Segment 1 is the Mojave River, which is located near the south and north ends of this segment. Multiple small unnamed creeks and washes that drain into the Mojave River or end before reaching the river. Other than the Mojave River, the Bell Mountain Wash and Wild Wash are the two main drainages in Segment 1.

Groundwater Resources: Segment 1 is located in both the Upper Mojave and Middle Mojave River Valley Groundwater Basins.⁵ The total surface area of the Upper Basin (CDWR Basin 6-42) is 413,000 acres or 645 square miles. The Upper Basin is bounded by the San Bernardino Mountains on the south and follows the Mojave River through Victorville in Apple Valley, and ends near the community of Helendale. Natural groundwater recharge of the basin occurs from direct precipitation, ephemeral stream flow, infrequent surface flow of the Mojave River, and underflow of the Mojave River. The general groundwater level trend in the Upper Basin is declining. Published total storage capacity for the basin varies. However, the California Department of Water Resources (CDWR) estimates that the total groundwater storage capacity is 27,839,000 acre-feet (af).⁶

The Middle Mojave River Valley Groundwater Basin (CDWR 6-41) generally flows east starting near the town of Helendale and ends at the Waterman fault. The total surface area of the basin is 211,000 acres or 330 square miles. Natural recharge of the basin occurs through precipitation, ephemeral stream flow, infrequent surface flow of the Mojave River, and underflow of the Mojave River. Groundwater level trends tend to vary with the amount of rainfall.

Segment 2 – East of Barstow through Yermo

Water Resources: Segment 2 includes five unnamed drainages in addition to the Waterman Avenue Channel, Arrowhead Channel, and North Barstow Channel. The Daggett Wash drains north into the Mojave River on the south side of Yermo at the north end of Segment 2.

Groundwater Resources: Portions of Segment 2 are also located in the Middle Mojave

⁵ A map of statewide groundwater sub-basins can be accessed at http://www.dpla2.water.ca.gov/publications/groundwater/bulletin118/maps/correct_statewide_basin_map_V3_subbas.pdf

⁶ DWR, 2004.

River Valley Groundwater Basin. A discussion of the character and groundwater quality of this groundwater basin is provided in above relative to Segment 1. Other portions of Segment 2 are also located in the Lower Mojave River Valley Groundwater Basin (CDWR Basin 6-40). The Lower Mojave River Valley Groundwater Basin surface area is 286,000 acres or 447 square miles. The groundwater basin underlies an elongated east-west valley, flowing from the Waterman fault and exiting the valley to the east through Afton Canyon.⁷ The total groundwater storage capacity is estimated to be about 9,010,000 af.

Segment 3 Alternative 3B– Yermo to Halloran Summit

Water Resources: Multiple unnamed drainages meander down the Calico Mountains near the western half of Segment 3 Alternative 3B. North of I-15 are the West and East Cronise Lakes and to the south is the Mojave River Wash. In the eastern portion of Segment 3 Alternative 3B, the major waterbodies in the vicinity are Silver Lake to the north and Soda Dry Lake to the south. Silver Lake and Soda Dry Lake make up the remnants of Lake Mojave. These lakes are small round depressions in the surface of the ground that tend to fill with water when it rains. There are numerous washes and ditches in Segment 3 Alternative 3B, including West Manix Wash, East Manix Wash, Sheep Ditch, Mobi Ditch, Mojave River Wash, Halloran Wash, Valley Wells Ditch, and Windmill Ditch,.

Groundwater Resources: The western portions of Segment 3 Alternative 3B are located in the Caves Canyon Valley Groundwater Basin (Basin 6-38). This basin underlies a portion of the Lower Mojave River Valley in central San Bernardino County. The Caves Canyon basin is bound by non-water-bearing rocks of the Cady Mountains on the southeast, the Cronise Mountains on the east, the Cave Mountains on the northeast, low hills on the north, and the Alvord Mountains on the northeast.⁸ The estimated total groundwater storage capacity of the basin is 4,152,000 af.

The next groundwater basin that Segments 3 Alternative 3B travels over is the Soda Lake Valley Groundwater Basin (Basin 6-33). This basin underlies a northeast-trending valley in northeast San Bernardino County. The basin is bounded by non water-bearing rocks of the Marl and Kelso mountains to the east, the Bristol and Cady mountains to the south, and the Soda and Cave Mountains to the west. Recharge to the basin occurs primarily from Mojave River percolation and percolation of runoff from the alluvial fan deposits at the base of the surrounding mountains. Groundwater level trends have been relatively stable throughout the period of record. However, declining levels have been observed in a couple of wells, and the most fluctuation occurs in wells near the Mojave River Sink. The total estimated storage capacity of the basin is approximately 9,300,300 af.⁹

7 CDWR, 2004a.

8 CDWR, 2003a.

9 CDWR, 2004b.

1.4.8 FEMA Flood Zones

FEMA issues Flood Insurance Rate Maps (FIRMs) to assess the potential and affect of a 100-year storm event. At the south end of Segment 1 is the 100-year floodplain along the Mojave River and Bell Mountain Wash near Stoddard Wells Road.

The 100-year floodplain generally follows the Mojave River. The north end of Segment 1 is within one mile of the 100-year floodplain that encompasses the southwest corner of Lenwood along Sylvan Avenue. Although no floodplain is mapped along the river from Lenwood Road south to Indian Trail, a review of the FEMA FIRM maps suggests that this area would be within the 100-year floodplain if it were studied. There are additional floodplain areas within this segment south of the BNSF railroad tracks in Lenwood, west of the Old Highway 58 and I-15 interchange, and at the east end of the segment along the intermittent canal between Ghost Town Road and Yermo Road.

Within Segment 3 Alternative 3B, the 100-year floodplain of the Mojave River is just east of Yermo. North of I-15 in the community of Baker is the 100-year floodplain of Silver Lake. South of I-15 and Baker is the 100-year floodplain for Soda Dry Lake. Soda Dry Lake and Silver Lake are dry most of the time, but occasionally receive stormwater runoff, which evaporates and/or sinks into the ground, although capillary action draws some of the water back to the surface. Since the water evaporates, the salts that were contained in the water are left behind; giving the dry lake its crusty, white surface.

1.5 Disclaimer

Huffman-Broadway Group, Inc. has conducted a thorough historical review and site investigation and made a good-faith effort herein to thoroughly describe and document the presence of potential factors that the Corps may consider in determining jurisdiction under their CWA jurisdiction as part of the Corps jurisdictional verification / determination process, however, DXE reserves the right to challenge or seek revision to any areas over which the Corps may assert jurisdiction.

2.0 REGULATORY FRAMEWORK

2.1 Definition of Wetlands and Other Waters of the U.S.

Section 404 of the Federal Clean Water Act authorizes the Corps to regulate activities that discharge dredged or fill material to wetlands and other waters of the United States. As described by EPA's and the Corps' regulations (40 CFR § 230.3(s) and 33 CFR § 328.3(a), respectively), the term "waters of the United States" encompasses the following resources:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect 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; or
 - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (iii) Which are used or could be used for industrial purpose by industries in interstate commerce
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
- (6) The territorial seas;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

EPA and the Corps define 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. (EPA regulations at 40 CFR § 230.3(t); Corps regulations at 33 CFR § 328.3(b)).

2.2 Limits of Jurisdiction

The following provides the regulatory definitions and criteria followed in determining the geographic extent of potential EPA/Corps jurisdiction as applicable to inland waters.

The geographic limits of relevant federal jurisdiction for non-tidal waters of the U.S. are defined as follows at 33 CFR § 328.4(c):

Non-Tidal Waters of the United States: The limits of jurisdiction in non-tidal waters:

- (1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark.
- (2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
- (3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

The terms “adjacent” and “ordinary high water mark,” used in the above definition, are defined at 33 CFR § 328.3 as follows:

The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are “adjacent wetlands.” (33 CFR § 328.3(c))

The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (33 CFR § 328.3(e))

A site must meet certain water, soil, and vegetation criteria to qualify as a jurisdictional wetland. The Corps’ 1987 *Wetlands Delineation Manual* and various regional supplements describe these criteria and the methods used to determine whether they are met and the geographic extent of wetland areas identified in the field.

2.3 Identification of Ordinary High Water Marks (OHWM)

The Corps definition of Ordinary High Water Mark (OHWM) provides the criterion by which the OHWM line can be identified which consists of “*that line on the shore established by fluctuations of water and indirect physical characteristics*” (33 CFR § 328.3(e)). The Corps has developed a delineation manual for the identification of OHWMs within the Arid West Region, entitled *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual* (Lichvar and McColley 2008). Tables 1a and 1b, below provide a summarized listing from the manual of indicators associated with areas that become flood or ponded, but are not dominated by wetland vegetation and the duration of

flooding, ponding and/or near surface soil saturation (≤ 12 inches) is not sufficient to cause hydric soils to form or wetland hydrology conditions to occur.

Table 1a. Potential Geomorphic Indicators of Ordinary High Water Marks for the Arid West *		
Potential Geomorphic OHWM Indicators		
(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1. In-stream dunes 2. Crested ripples 3. Flaser bedding 4. Harrow marks 5. Gravel sheets to rippled sands 6. Meander bars 7. Sand tongues 8. Muddy point bars 9. Long gravel bars 10. Cobble bars behind obstructions 11. Scour holes downstream of obstructions 12. Obstacle marks 13. Stepped-bed morphology in gravel 14. Narrow berms and levees 15. Streaming lineations 16. Dessication / mud cracks 17. Armored mud balls 18. Knick Points 	<ol style="list-style-type: none"> 1. Valley flat 2. Active floodplain 3. Benches: low, mid, most prominent 4. Highest surface of channel bars 5. Top of point bars 6. Break in bank slope 7. Upper limit of sand-sized particles 8. Change in particle size distribution 9. Staining of rocks 10. Exposed root hairs below intact soil layer 11. Silt deposits 12. Litter (organic debris, small twigs and leaves) 13. Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1. Desert pavement 2. Rock varnish 3. Clast weathering 4. Salt splitting 5. Carbonate etching 6. Depositional topography 7. Caliche rubble 8. Soil development 9. Surface color/tone 10. Drainage development 11. Surface relief 12. Surface rounding

* Adapted from *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual* (Lichvar and McColley 2008).

**Table 1b. Potential Vegetation Indicators of Ordinary High Water Marks
for the Arid West ***

Potential Vegetation OHW Indicators			
	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1. Herbaceous marsh species 2. Pioneer tree seedlings 3. Sparse, low vegetation 4. Annual herbs, hydromesic ruderals 5. Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1. Annual herbs, hydromesic ruderals 2. Perennial herbs, hydromesic clonals 3. Pioneer tree seedlings 4. Pioneer tree saplings 	<ol style="list-style-type: none"> 1. Annual herbs, xeric ruderals 2. Perennial herbs, non-clonal 3. Perennial herbs, clonal and non-clonal co-dominant 4. Mature pioneer trees, no young trees 5. Mature pioneer trees w/upland species 6. Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6. Pioneer tree seedlings 7. Sparse, low vegetation 8. Pioneer tree saplings 9. Xeroriparian species 	<ol style="list-style-type: none"> 5. Sparse, low vegetation 6. Annual herbs, hydromesic ruderals 7. Perennial herbs, hydromesic clonals 8. Pioneer tree seedlings 9. Pioneer tree saplings 10. Xeroriparian species 11. Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7. Xeroriparian species 8. Annual herbs, xeric ruderals 9. Perennial herbs, non-clonal 10. Perennial herbs, clonal and non-clonal codominant 11. Mature pioneer trees, no young trees 12. Mature pioneer trees, xeric understory 13. Mature pioneer trees w/upland species 14. Late-successional species 15. Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10. Sparse, low vegetation 11. Xeroriparian species 12. Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12. Sparse, low vegetation 13. Xeroriparian species 14. Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16. Annual herbs, xeric ruderals 17. Mature pioneer trees w/upland species 18. Upland species

* Adapted from *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual* (Lichvar and McColley 2008).

2.4 Wetlands Delineation Criteria

The Corps' 1987 *Wetlands Delineation Manual* identifies the key diagnostic criteria for determining the presence of wetlands. These include:

1. **Wetland Hydrology:** Inundation or saturation to the surface during the growing season.
2. **Hydric Soils:** Soils classified as hydric or that possess characteristics associated with reducing soil conditions.
3. **Predominance of Wetland Vegetation:** Vegetation classified as facultative, facultative wet, or obligate according to its tolerance of saturated (i.e., anaerobic) soil conditions.

Specific criteria used to determine the presence or absence of wetland hydrology, soil, and vegetation conditions are described in the sections below.

2.4.1 Wetland Hydrology

The 1987 Corps *Manual* states that wetland hydrology conditions occur when a “site is inundated either permanently or periodically at mean water depths less than or equal to 6.6 feet, or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation.” Whether a site meets either of these criteria is determined by the presence of diagnostic indicators of wetland hydrology, which include those listed in Table 2.

Table 2. Wetland Hydrology Indicators (Based on 1987 Corps Manual and Corps Guidance Documents)	
Primary Indicators	Secondary Indicators
Watermarks	Oxidized Rhizospheres Associated with Living Roots
Drift Lines	Water-Stained Leaves
Water-Borne Sediment Deposits	FAC-Neutral Test
Drainage Patterns Within Wetlands	Local Soil Survey Data

A March 8, 1992 Corps memorandum entitled *Clarification and Interpretation of the 1987 Manual* provides further clarification:

Areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days for more than 12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas wet between 5 percent and 12.5 percent of the growing season in most years may or may not be wetlands. Sites saturated to the surface for less than 5 percent of the growing season are non-wetlands.

Wetland hydrology indicators have also been further defined and described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008). These indicators are similar to the indicators listed above from the 1987 Corps *Manual* and are presented in Table 3.

Table 3. Wetland Hydrology Indicators for the Arid West (Based on Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0)		
	Primary Indicators (<i>any one indicator is sufficient to make a determination that wetland hydrology is present</i>)	Secondary Indicators (<i>two or more indicators are required to make a determination that wetland hydrology is present</i>)
Group A – Observation of Surface Water or Saturated Soils		
A1* – Surface Water	X	
A2 – High Water Table	X	
A3 – Saturation	X	
Group B – Evidence of Recent Inundation		
B1 – Water Marks	X (Nonriverine)	X (Riverine)
B2 – Sediment Deposits	X (Nonriverine)	X (Riverine)
B3 – Drift Deposits	X (Nonriverine)	X (Riverine)
B6 – Surface Soil Cracks	X	
B7 – Inundation Visible on Aerial Imagery	X	
B9 – Water-Stained Leaves	X	
B10 – Drainage		X
B11 – Salt Crust	X	
B12 – Biotic Crust	X	
B13 – Aquatic Invertebrates	X	
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen Sulfide Odor	X	
C2 – Dry-Season Water Table		X
C3 – Oxidized Rhizospheres along Living Roots	X	
C4 – Presence of Reduced Iron	X	
C6 – Recent Iron Reduction in Tilled Soils	X	
C7 – Thin Muck Surface	X	
C8 – Crayfish Burrows		X

Table 3. Wetland Hydrology Indicators for the Arid West (Based on Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0)		
	Primary Indicators (<i>any one indicator is sufficient to make a determination that wetland hydrology is present</i>)	Secondary Indicators (<i>two or more indicators are required to make a determination that wetland hydrology is present</i>)
C9 – Saturation Visible on Aerial Imagery		X
Group D – Evidence from Other Site Conditions or Data		
D3 – Shallow Aquitard		X
D5 – FAC-Neutral Test		X
* Denotes number of wetland hydrology indicator described in detail in the <i>Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)</i> .		

2.4.2 Hydric Soils

The 1987 Corps *Manual* states that the diagnostic environmental characteristics indicative of wetland soil conditions are met when "soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions." According to the Manual, indicators of soils developed under reducing conditions may include:

1. Organic soils (Histosols);
2. Histic epipedons;
3. Sulfidic material;
4. Aquic or peraquic moisture regime;
5. Reducing soil conditions;
6. Soil colors (chroma of 2 or less);
7. Soil appearing on hydric soils list; and
8. Iron and manganese concretions.

A February 20, 1992, Corps memorandum entitled *Regional Interpretation of the 1987 Manual* states that the most recent version of National Technical Committee for Hydric Soils (NTCHS) hydric soil criteria will be used (to make hydric soil determinations). These soil criteria specify at least 15 consecutive days of saturation or 7 days of inundation (flooding or ponding) during the growing season in most years.

The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. Also, soils in which the hydrology has been artificially modified are hydric if the soil, in an unaltered state, was hydric. Some series, designated as hydric, have phases that are not hydric depending on water table, flooding, and ponding characteristics. As indicated above, like the NRCS, the Corps has typically accepted guidance for the identification of hydric soils developed by the National Technical Committee for Hydric Soils (NTCHS). The

NTCHS, a working group organized by NRCS, has developed criteria for identifying and mapping hydric soils throughout the United States and defines a hydric soil as “a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part [of the soil profile]” (<http://soils.usda.gov/use/hydric/intro.html>). The most recent (2000) version of the NTCHS hydric soils criteria identifies those soils that are likely to meet this definition. These criteria, which are accepted by most state and federal agencies, are as follows (<http://soils.usda.gov/use/hydric/criteria.html>):

1. All Histels except Folistels and Histosols except Folists, or
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Andic, Vitrandic, and Pachic subgroups, or Cumulic subgroups that are:
 - a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or
 - b. poorly drained or very poorly drained and have either:
 - (i.) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in), or for other soils,
 - (ii.) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or
 - (iii.) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or
3. Soils that are frequently ponded for a long duration or a very long duration (7 to 30 days) during the growing season, or
4. Soils that are frequently flooded for a long duration or a very long duration (7 to 30 days) during the growing season.

On the basis of computer database searches for soils meeting the second criterion, NRCS has developed hydric soils lists for many parts of the country. Although they are useful for determining whether a particular soil series *has the potential to support current hydric soil conditions*, caution should be used when using these lists for site-specific hydric soil determinations. Many soils on the lists have ranges in water table depths and other characteristics that allow them to be either hydric or nonhydric depending on landscape position and other site-specific factors (e.g., soil clay content, depth to bedrock). Accordingly, hydric soils lists are good ancillary tools to facilitate wetland determinations, but are not a substitute for onsite investigations.

Field indicators of hydric soils are morphological properties known to be associated with soils that meet the definition of a hydric soil. Presence of one or more field indicators suggests that processes associated with hydric soil formation have taken place on the site being observed. The field indicators are essential for hydric soil identification because

once formed, they persist in the soil during both wet and dry seasonal periods. However, few hydric soil indicators identify soils at a site as being currently hydric in accordance with the NCHS hydric soils criteria described above. Field indicators of hydric soil conditions are listed in Table 4:

Table 4. Field Indicators of Hydric Soil Conditions (Based on 1987 Corps Manual and Corps Guidance Documents)	
1. Indicators of Historical Hydric Soil Conditions:	2. Indicators of Current Hydric Soil Conditions:
<ul style="list-style-type: none"> a. Histosols b. Histic epipedons; c. Soil colors (e.g., gleyed or low-chroma colors, soils with bright mottles (Redoximorphic features) and/or depleted soil matrix d. High organic content in surface of sandy soils e. Organic streaking in sandy soils f. Iron and manganese concretions g. Soil listed on county hydric soils list 	<ul style="list-style-type: none"> a. Aquic or peraquic moisture regime (inundation and/or soil saturation for ≥ 7 continuous days) b. Reducing soil conditions (inundation and/or soil saturation for ≥ 7 continuous days) c. Sulfidic material (rotten egg smell)

The presence of one or more of the field indicators in “1 a, b, c, and/or d” above suggests that historical processes associated with hydric soil development have taken place at a given site. These indicators are useful in determining if soils at a site were historically formed under hydric soil conditions because the indicators persist in soils during both wet and dry periods and may remain for decades and even centuries after changes in site conditions occur that inhibit subsequent wetland development, such as the elimination of wetland hydrology (NRCS 1995). However, only the presence of field indicators “2 a, b, and/or c” confirms that hydric soils occur at a site during the period of observation.

Hydric soil indicators have also been further defined and described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008). These indicators are similar to those listed above from the 1987 Corps Manual and are presented below in Table 5.

Table 5. Hydric Soil Indicators for the Arid West (Based on Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0)			
Hydric Soil Indicators			Hydric Soil Indicators for Problem Soils**
All Soils	Sandy Soils	Loamy & Clayey Soils	
A1* – Histosol	S1 – Sandy Mucky Mineral	F1 – Loamy Mucky Mineral	A9 – 1 cm Muck
A2 – Histic Epipedon	S4 – Sandy Gleyed Matrix	F2 – Loamy Gleyed Matrix	A10 – 2 cm Muck
A3 – Black Histic	S5 – Sandy Redox	F3 – Depleted Matrix	F18 – Reduced Vertic
A4 – Hydrogen Sulfide	S6 – Stripped Matrix	F6 – Redox Dark Surface	TF2 – Red Parent Material
A5 – Stratified Layers	--	F7 – Depleted Dark Surface	Other (See Section 5 of the Regional Supplement, Version 2.0)--
A9 – 1 cm Muck	--	F8 – Redox Depressions	--
A11 – Depleted Below Dark Surface	--	F9 – Vernal Pools	--
A12 – Thick Dark Surface	--	--	--

* Denotes number of hydric soil indicator described in detail in *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*.
** Indicators of hydrophytic vegetation and wetland hydrology must be present.

It should also be noted for problematic areas that the 2008 Corps Regional Supplement specifies 14 days continuous ponding as an acceptable indicator of problematic hydric soils (USACE 2008, p. 101).

2.4.3 Prevalence of Wetland Vegetation

Species Classifications

Species classifications (e.g., tolerance of anaerobic soil conditions) are determined by consulting the *National List of Plant Species that Occur in Wetlands* (Reed 1988) and the relevant regional lists, which are published by FWS' National Wetlands Inventory (NWI). Regional Interagency Review Panels develop the lists by determining species' estimated probability of occurrence in wetlands vs. non-wetlands. Classifications are made by unanimous agreement of the Panel. If the Panel is unable to reach a unanimous decision on the status of a species, "no agreement" (NA) is recorded. If insufficient information exists to determine the status of a species, "no indicator" (NI) is recorded. Species that are not included in the NWI list are assigned a "not listed" (NL) designation in this report.

The resulting NWI lists include plants that grow in a range of soil conditions from permanently wet to dry. Species are divided into the following "indicator categories":

1. **“Obligate wetland” (OBL)** species, which, under natural conditions, occur almost always in wetlands (estimated probability >99 percent);
2. **“Facultative wetland” (FACW)** species, which usually occur in wetlands (estimated probability 67 – 99 percent), but are occasionally found in non-wetlands;
3. **“Facultative” (FAC)** species, which are equally likely to occur in wetlands or non-wetlands (estimated probability 34 – 66 percent);
4. **“Facultative upland” (FACU)** species, which sometimes occur in wetlands (estimated probability 1 – 33 percent), but more often occur in non-wetlands; and
5. **“Obligate upland” (UPL)** species, which occur in wetlands in other regions, but, under natural conditions, occur almost always in non-wetlands in the region specified (estimated probability >99 percent).

Species that have an indicator status of OBL, FACW, and FAC are typically considered to be adapted for life in anaerobic soil conditions (Corps 1987) and are used as evidence of hydrophytic vegetation when they dominate plant community composition or cover. Despite widespread use of the lists for wetland delineations, it is important to note that wetland indicator species assignments are not based on the results of a statistical analysis of species occurrence. The indicator assignments are approximations of wetland affinity based on a synthesis of submitted review comments, published botanical literature, and the field experience of the members of the Interagency Review Panel. For this reason and because many plants have properties that enable them to occur in a range of microhabitats (i.e., wetlands and non-wetlands), the presence of wetland indicator species is not unequivocal evidence of the presence of wetland hydrology and hydric soils. A positive indicator or indicators of wetlands should be emphasized, such as an assemblage of plants that can only be considered “hydrophytes” when they are growing in water or partly drained hydric soils (not effectively drained hydric soils) (Corps 1987). From the FWS perspective, all species on the NWI plant lists are hydrophytes at one time or another and the wetland indicator status (OBL, FACW, FAC, or FACU) reflects the likelihood that a given individual of a species is a hydrophyte or a certain population of these plants is hydrophytic. While OBL and FACW species are the most reliable plant indicators of wetlands, FAC and FACU species also contain populations of hydrophytes (Tiner 2006).

For the reasons stated above, the 1987 Corps *Manual* does not solely rely on the presence of hydrophytic vegetation to make wetland determinations.

Hydrophytic Vegetation Definitions

The Corps’ 1987 *Manual* states that the wetland vegetation conditions are met when the prevalent vegetation (i.e., more than 50 percent of vegetation cover or tree basal area) consists of macrophytes that are typically adapted to sites having wetland hydrologic and soil conditions (e.g., periodic or continuous inundation or soil saturation). Hydrophytic vegetation is defined as “plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (Cowardin *et al.*

1979). Hydrophytic vegetative species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. Positive indicators of the presence of hydrophytic vegetation include:

1. More than 50 percent of the dominant species are rated as Obligate ("OBL"), Facultative Wet ("FACW"), or Facultative ("FAC") on lists of plant species that occur in wetlands (see Reed 1988 for California);
2. Visual observations of plant species growing in sites of prolonged inundation or soil saturation; and
3. Reports in the technical literature indicating the prevalent vegetation is commonly found in saturated soils.

Hydrophytic vegetation indicators have been further defined and described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008). These indicators include:

1. Dominance Test. More than 50 percent of the dominant plant species across all strata are rated OBL, FACW, or FAC.
2. Prevalence Index. The prevalence index is 3.0 or less with indicators of hydric soils and wetland hydrology being present.
3. Morphological Adaptations. The plant community passes either the dominance test or the prevalence index after reconsideration of the indicator status of certain plant species that exhibit morphological adaptations for life in wetlands.

3.0 DELINEATION METHOD

This study was conducted in accordance with Code of Federal Regulations (CFR) definitions of jurisdictional waters, the Corps' 1987 *Wetlands Delineation Manual*, the Corps' 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual*, and supporting guidance documents. The following provides an overview of the objective of the delineation approach, how the Study Area is defined, and the methods used to identify and map (delineate) areas potentially subject to Corps jurisdiction under Section 404 of the CWA.

3.1 Objective and Establishment of Study Area Boundary

The objective of this investigation is to identify and map areas potentially meeting the Clean Water Act definition of wetlands and Other Waters of the United States within the potential impact footprint of the DesertXpress Project. This impact footprint, which is encompassed within the Study Area, includes the proposed alignment and any alternative alignment and support facilities such as passenger stations and operations and maintenance facilities (e.g., maintenance yard, power substations, and transmission lines).

Temporary construction areas for equipment and materials laydown, new access roads, and borrow areas are also included within the Study Area. The boundary of the Study Area also represents a slightly larger area (increased alignment and facility ROW width by an average of 200 feet) to accommodate potential minor changes in the impact footprint.

3.2 Study Area Reconnaissance

Prior to initiating detailed field survey work, existing land forms within the Study Area that may potentially contain wetlands or other waters of the United States were identified by conducting vehicle and pedestrian on-site reconnaissance inspections during the month of April 2010 in conjunction with review of the following information:

- Aerial photography and satellite imagery of the area;
- USGS topographic mapping;
- NRCS soils mapping;
- Engineer scale topographic mapping of segment alternatives
- USGS National Hydrology Dataset; and
- Preliminary level vegetation mapping and wetland / OHWM data collection efforts conducted during February and March 2008 and September and October 2009 as part of an on-going Federal EIS process by the FRA's EIS contractor.

The above efforts led to the development, in coordination with Corps regulatory staff, and use of the project-specific methods described below.

3.3 Wetlands Identification and Delineation

Field surveys designed to identify the presence or absence of field indicators of wetland

vegetation, soils and hydrology conditions were conducted within low-lying landscape features where wetlands could potentially occur. These field surveys were conducted during the months of April, May, and June 2010.

3.3.1 Dominance of Wetland Vegetation

Presence or absence of a dominance of wetland vegetation / hydrophytes within the Study Area was evaluated using the methodology described in Sections 2.2 and 2.4.3. Indicator status of plants was confirmed by referring to the *National List of Plant Species that Occur in Wetlands: 1988 National Summary* (Reed). Plant cover data were collected for individual species associated within and immediately adjacent to the landscape features identified during the site reconnaissance survey as having the potential to meet the Corps' technical criteria for wetlands. Plant cover was visually estimated within 3-foot diameter plots at each soil sample location and was recorded on a Corps Wetland Determination Data Form – Arid West Region. Copies of completed data forms are provided in Exhibit B2. Subsequently, field data were analyzed to assess whether 50 percent or greater of the dominant species within the area sampled are hydrophytes. Sites that are depressional landforms that do not have a dominance of wetland vegetation forming at least 5 percent cover were not considered to be dominated by hydrophytes and were classified as a potential “other water of the United States” following the methodology described in Section 3.4, below, except if conditions for problematic vegetation were met as described in the Corps' 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*.

3.3.2 Presence of Hydric Soil Indicators

The presence or absence of hydric soil field indicators was evaluated following the methodology described in Section 2.3.2 using the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008). At each potential wetland sampling location within the Study Area, hand-dug soil pits were excavated to a minimum of 20 inches or until a limiting layer or standing water is reached. The presence or absence of hydric soil indicators found at each soil pit location was recorded on a Corps Wetland Determination Data Form – Arid West Region. Copies of completed data forms are provided in Exhibit B2. For sampling locations where the possibility of problematic hydric soils is found, procedures for the identification of problematic hydric soils as defined by the above described publication were followed.

3.3.3 Presence of Wetland Hydrology Indicators

The presence or absence of wetland hydrology field indicators were assessed following the methodology described in Section 2.3.1 using the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008). The presence or absence of wetland hydrology indicators at each soil pit location was recorded on a Corps Wetland Determination Data Form – Arid West Region. Copies of completed data forms are provided in Exhibit B2. For sampling locations where the possibility of problematic hydrology indicators was found, procedures for the identification of problematic hydrology indicators, as defined by the above-described publication, were followed.

3.4 Identification and Delineation of Other Waters

Field surveys designed to identify the presence or absence of field indicators of an ordinary high water mark (OHWM) were conducted within low-lying landscape features where other waters of the United States could potentially occur. These field surveys were conducted during the months of April, May, and June 2010 after the detailed methodology was reviewed and approved by Corps staff during May 2010.

HBG identified drainages within each watershed that potentially met the Corps technical criteria for Other Waters of the United States (presence of field indicators of active surface water flow and associated Ordinary High Water Mark [OHWM]) using the following approach based on *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual*.

Initial efforts involved identification of all drainages within the Study Area having the potential for active surface flow. This was accomplished through field reconnaissance and imagery interpretation. Detailed sampling was then conducted to identify and delineated active drainages with an OHWM. This was accomplished by randomly sampling the identified drainages in a stratified manner by geographically dividing the Study Area into HUC 12 watershed units.

Field sampling within each HUC 12 watershed consisted of gathering OHWM data, including the measured width of the OHWM, for 3 to 5 main drainages (> 3 feet), if present, selected at random; and 6 to 10 (depending on watershed size) random samples of minor drainages (\leq 3 feet), if present. Each of the HCC 12 watersheds located within the Study Area was divided into approximate thirds. Then a minimum of one major drainage and two minor drainages, if present, was sampled within each third of a watershed. Where the length of the watershed along the project alignment alternatives was less than 5 miles, the watershed was divided into approximate halves instead. If the minor drainages (\leq 3 feet) occurring within each one-third watershed varied in OHWM width by more than 33 percent, sampling was increased in that third of the watershed.

Drainage data for each of the watershed drainages sampled were collected on a standardized field data sheet (Exhibit B2). Exhibit A, Figures 5-12 provide examples of the types of field indicators observed within various drainages along the DesertXpress Project alternative alignments. Each field sampling point was memorialized using a handheld GPS unit with submeter accuracy. Where stormwater flows originated upslope of the side of I-15 opposite the alignment, those drainages were hydrologically cut off by the freeway during construction and channeled into detention basins and / or manmade drainages on that side of I-15. As a consequence, drainages on the proposed alignment side of I-15 were hydrologically cut off from their sources and no longer technically meet the Corps OHWM criterion. This condition was noted on the field data sheets. Detailed OHWM indicator data for these historical drainage features were not collected.

All drainage data (field and photointerpreted drainage data) are summarized by HUC 12 watershed on the required Los Angeles District Excel JD Summary Data Sheet (see Exhibit B1). Widths for active drainages identified through photointerpretation are based on an average width calculated from field data. The length of each drainage is based on photointerpretation. Standardized field data sheets are provided in Exhibit B2. Representative photographs of various drainage features are presented in Exhibit A on Figures 13 – 33. The field data collected from each watershed were used to aid in the imagery interpretation process described in Section 3.5, below.

3.5 Mapping

Wetland indicator data sample locations and the locations of areas identified during field surveys that are potentially Other Waters of the United States due to the presence of an OHWM were mapped using a hand-held Trimble XT global positioning system (GPS) unit with sub-meter accuracy. This GPS data was incorporated into a Geographic Information System (GIS) and geo-referenced in overlay fashion onto digital orthorectified satellite imagery and/or high resolution aerial photograph depending on availability. Overlays were used to assist in analysis, identification, and digitization of the location and geographic extent of areas that could potentially qualify as waters of the United States. The imagery interpretation process involved the combined use of available imagery, field data, engineer level topographic mapping, field verification of mapped features and best professional judgment to map the geographic extent of areas potentially subject to Corps CWA jurisdiction. Exhibit C comprises detailed 1"=200' scale mapping of the Study Area with field sampling points and delineated active linear drainage features. Labeling indicating their average OHWM width was overlain on orthorectified digital imagery. The maps are provided in digital PDF format due to the extensive numbers of maps required to show such detail.

4.0 TECHNICAL FINDINGS

The following sections describe the landscape features and field indicators found within the Study Area that provide a technical basis for (a) determining the presence or absence of a potential water of the United States; and (b) defining the geographic extent of any potential water of the United States identified. Two types of landscape features were found that potentially contain waters of the United States. These include:

1. Natural drainages
2. Manmade drainages

4.1 Field Indicators of Hydric Soils

Based on field observations within the Study Area soil indicators were not found that meet the hydric soils criteria defined by current Corps' regulatory guidance, including the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). Onsite observations of surface conditions, including road and channel bank cuts, and interpretation of aerial photography revealed two primary soil types, desert pavement and more active wash sediments. Onsite examination revealed that soils or substrates within both natural drainages and manmade drainages consist of alluvial materials primarily made up of sorted sands and gravel, and are well drained, ranging from moderately well drained to excessively well drained.

4.2 Field Indicators of Wetland Hydrology Conditions

Based on field observations within the Study Area wetland hydrology indicators were not found that meet the wetland hydrology criteria defined by current Corps' regulatory guidance, including the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). Onsite observations revealed evidence of flooding within the low-lying natural and manmade drainages. These observations also showed that there was no evidence of ponding and soil saturation for long to very long periods of time. The lack of ponding and soil saturation conditions meeting the wetland hydrology criteria is a direct result of the moderately well drained to excessively well drained alluvial soils.

Although wetland hydrology conditions were not found within the Study Area, the field indicators of active surface water flow or flooding found within natural and manmade drainages were sufficient enough to form Ordinary High Water Marks (OHWM). As indicated in Section 2.0, an OHWM provides a technical basis for (a) determining the presence a potential water of the United States; and (b) defining the geographic extent of potential water of the United States.

The natural and manmade drainages within the Study Area found with an OHWM exhibited the following characteristics which are discussed in detail in the following subsections:

1. identifiable field indicators of surface flow
2. identifiable landscape features that supports surface flow
3. identifiable landscape features with a recognizable OHWM

Exhibit A, Figures 5-12 provides typical examples of field indicators of active surface water flow and OHWMs found within ephemeral drainages occurring within the DesertXpress Project Study Area. Exhibit A, Figures 13-33 provide photographs of various types of drainages observed within the HUC 8 Mojave watershed.

4.2.1 Field Indicators of Surface Flow

Review of topographic mapping (USGS and Engineer scale) and imagery of the Study Area provided visual indication of the presence of curvilinear depressional land surface features where focused surface water flow could potentially be directed. Linear drainage features associated with road drainage and flood control were also found. Field investigations confirmed the presence of surface flow within a number of these channels or drainages while others lacked evidence / field indicators of active ephemeral surface water flow. No drainages were found to contain evidence of perennial or intermittent surface water flow, and no evidence of subsurface flow was found in the form of spring discharges, artesian flows or indicia of a high groundwater table. Observation of active natural and manmade ephemeral drainages revealed evidence of surface water / hydrologic connectivity with other active drainages within and outside the Study Area. These ephemeral drainages are locally referred to as “desert dry washes.” The manmade drainages served to redirect surface flow from altered natural drainages. Indicators of drainages having active surface water flow paths included (1) water marks defined by linear deposits of fine-grained sediment, minerals and/or plant debris; (2) bank scour, erosion, and/or shelving; (3) deposits of sorted alluvial materials; and (4) flow-deposited woody and soft tissue plant debris (Exhibit B2).

Flow-deposited woody and soft tissue plant debris were typically absent in drainages that did not have active surface flow. If woody debris was present, the pieces observed were relatively thick (i.e., greater than ¼ inch) weathered limb or root material or milled posts or lumber. The wood pieces found were randomly placed and were not part of a collective flow line of deposited woody and/or soft tissue plant debris, which would be indicative of an active channel. The historical drainages were found to possess one or more of the same type of indicators found in active drainages, but the indicators found were considerably weathered. Surface flow indicators such as bank scour, erosion, and shelving areas had rounded edges in contrast to those found in active drainages having angular edges. Water marks defined by linear deposits of fine-grained sediment and minerals, and sorted alluvial materials such as gravels, cobbles and boulders were etched or varnished from weathering. The historical drainages were found to consist of the historical remains of channel drainages that were abandoned due to upslope changes in drainage due to either channel down-cutting or the channel becoming abandoned as the surface drainage became redirected or changed course due to deposition of alluvial material damming the channel flow path. The historical drainages were found to lack

indicators of active flow.

Surface water flow patterns were also found within various portions of the landscape that were relatively flat. These surface flow areas were defined by flow-deposited fine grained sediment or soft tissue plant debris. The visible surface flow pattern at these locations would continue for several feet then disappear either on a relatively flat soil surface or localized depression.

Based on the above technical findings and as documented in Exhibits B and C, drainages were found with indicators of active surface water flows within the Study Area.

4.2.2 Landscape Features that Support Surface Flow

Detailed field surveys identified land surface features that have the potential to convey surface flows. These features included a bed or channel and abutting banks. These physical features were found associated with both active flow areas and historical drainages. These drainage types can be summarized as follows:

1. Active drainage channel and abutting banks containing evidence of recent surface flows as indicated by the presence of unweathered sediment material (sand, gravel, cobbles, etc.) with unweathered surfaces, and the presence of flow deposited woody debris and/or soft tissue plant debris.
2. Active drainage channel and abutting banks containing evidence of historical surface flows as indicated by the presence of unweathered sediment material (sand, gravel, cobbles, etc.) with unweathered surfaces, but lacked the presence of flow deposited woody debris and/or soft tissue plant debris.
3. Historical drainage channels and abutting banks having no evidence of recent surface flow as indicated by weathered sedimentary gravel, cobbles, boulders, erosional or depositional deposits, and the lack of flow deposited woody debris and/ or soft tissue plant debris.

The frequency interval of flow events within drainages with observable plant debris (1 above) and unweathered sediment material is estimated to be within the 1 to 15 year range. Strojan, et al. (1987) found that surface litter decomposition rates for creosote bush and burro bush in the Mojave Desert were 42.5% and 58.4%, respectively over a 54-week period of study. Kemp, et al. (2003) reported a similar one year decomposition rate for creosote bush and a 74% loss within a 41-month period. This lends support to qualitative observations made by one of the preparers of this report, Dr. Terry Huffman, who has observed over 20 + years of delineating wetlands within arid environments that soft plant tissue (i.e., pieces of plant leaves and thin bark) will decompose in arid drainage environments within a 2 to 3 year period. In addition, field observations over these years indicated that small woody stems (<1/4 inch) decompose over many more years, perhaps 10 + years. For older drainages where the surfaces of the sediment material (e.g., sand, gravel, cobbles, etc.) is no longer smoothed by the interaction of surface water flow and transport, but weathered, and lacks flow deposited woody and thin tissue plant debris, the frequency interval likely ranges to well over a decade in shallower

channels to prehistoric times for deeply incised channels (i.e. > 6 feet in desert pavement areas).

The land surface of the Study Area is characterized by the presence of active and inactive alluvial fan systems. Ephemeral drainage channels are found on both types of these alluvial fan types. The majority of the ephemeral channels supporting active surface water flow were narrow, with an average width of less than 3 feet. Active alluvial fans were characterized by sandy soils, a uniform vegetation type, and evidence by surface flow patterns indicative of surface water sheetflow. Narrow channels within these areas were both weakly expressed and discontinuous. This discontinuity indicated that new channels could be formed with each major flood event resulting in the current channels being bypassed and blocked off. Channels >3 feet wide were also found. These channels were considerably deeper than the narrow channels found and were less common when considering the landscape as a whole in relationship to the Study Area. Evidence was found within both of these channel types where previously bypassed cutoff channels were becoming filled with sediment. The specific conditions varied within the Study Area.

Based on the above technical findings, drainages with active surface flow were found within the Study Area with physical features that allow for the conveyance of surface flows.

4.2.3 Landscape Features with a Recognizable OHWM

The desert dry washes with active flow were found to have identifiable features which represented the geographic reach of lateral surface water. These features included channels or beds with evidence of active flow and abutting banks which demarcated the lateral reach or extent of flow. Field indicators of the extent of active flow along the banks included water marks defined by linear deposits of fine grained sediment and/or minerals, bank scour, erosion, and/or shelving, and flow deposited woody and soft tissue plant debris (Exhibit B2).

Based on the above technical findings, the active drainages, described in the above subsections, have recognizable landscape features from which the lateral extent of surface water flow can be geographically delineated. Field indicators of this surface water flow were used to identify the OHWM. The maps in Exhibit C show the locations of these active ephemeral drainages.

4.3 Field Indicators of Wetland Vegetation

On the basis of field observations within the Study Area, a dominance of wetland plant species or hydrophytes was not found. Based on this result, the criteria defined by current Corps' regulatory guidance, including the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) for wetland vegetation were not met.

4.4. Presence of Wetland Vegetation within Natural and Manmade Drainages

Based on field observations within the Study Area a dominance of wetland plant species or hydrophytes was not found within natural or manmade drainages within the Study Area where active ephemeral drainages were found.

5.0 AREAS POTENTIALLY SUBJECT TO JURISDICTION

This section presents the findings of this delineation with respect to the identification and geographic extent of areas found that could potentially be regulated by the Corps and the EPA as wetlands or other waters of the United States under Section 404 of the Clean Water Act.

5.1 Wetlands

No areas meeting the Corps technical criteria for wetlands were identified within the Study Area. These findings are based on the absence of hydric soil, wetland hydrology, and / or wetland vegetation indicators as required by the Corps' *1987 Manual, the Arid West Regional Supplement*, guidance documents, and regulations.

5.2 Other Waters of the U.S.

Ephemeral drainages or desert dry washes were found within the Study Area that meet the technical criteria to potentially be subject to CWA Section 404 jurisdiction as Other Waters of the United States (Exhibit C). This finding is based on the presence of an OHWM as required by Corps regulations. Length and width measurements of the ephemeral drainages found to contain an observable OHWM are provided in Exhibit B1.

6.0 REFERENCES

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Exhibit A

Figures

Figure 1	DesertXpress Project Alignment Alternatives
Figure 2	Location of Alignment Alternatives Within HUC-8 Watershed
Figure 3	Location of Study Area
Figure 4	Location of Study Area Within HUC-8 / HUC-12 Watersheds
Figures 5-12	Typical Examples of Field Indicators of Active Surface Water Flow and Ordinary High Water Marks Found Within Ephemeral Drainages Occurring Within the DesertXpress Project Study Area.
Figures 13-33	Examples of Drainages Found Within HUC-8 Watershed

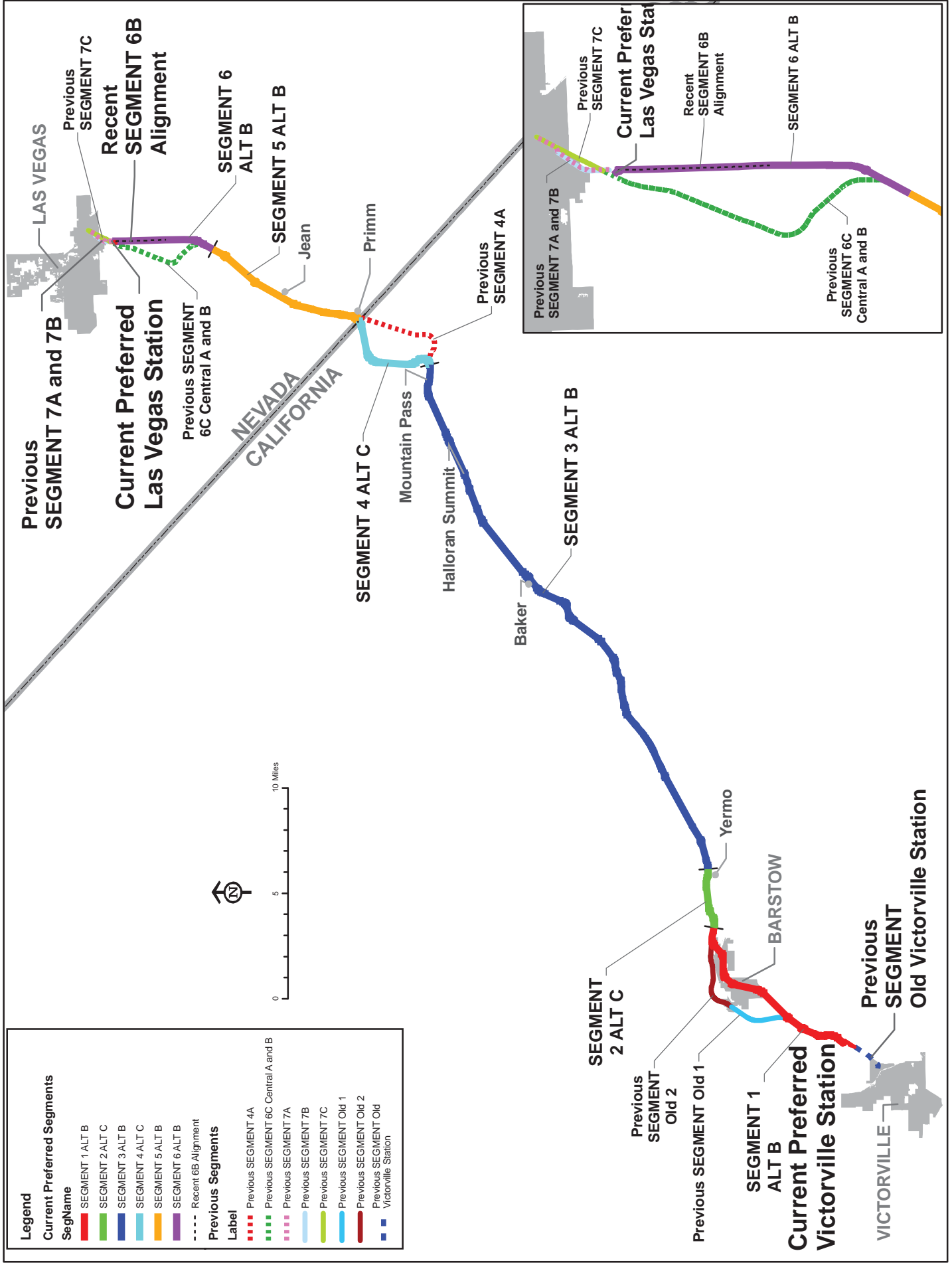


Figure 1. DesertXpress Project Alignment Alternatives F-1.6-45

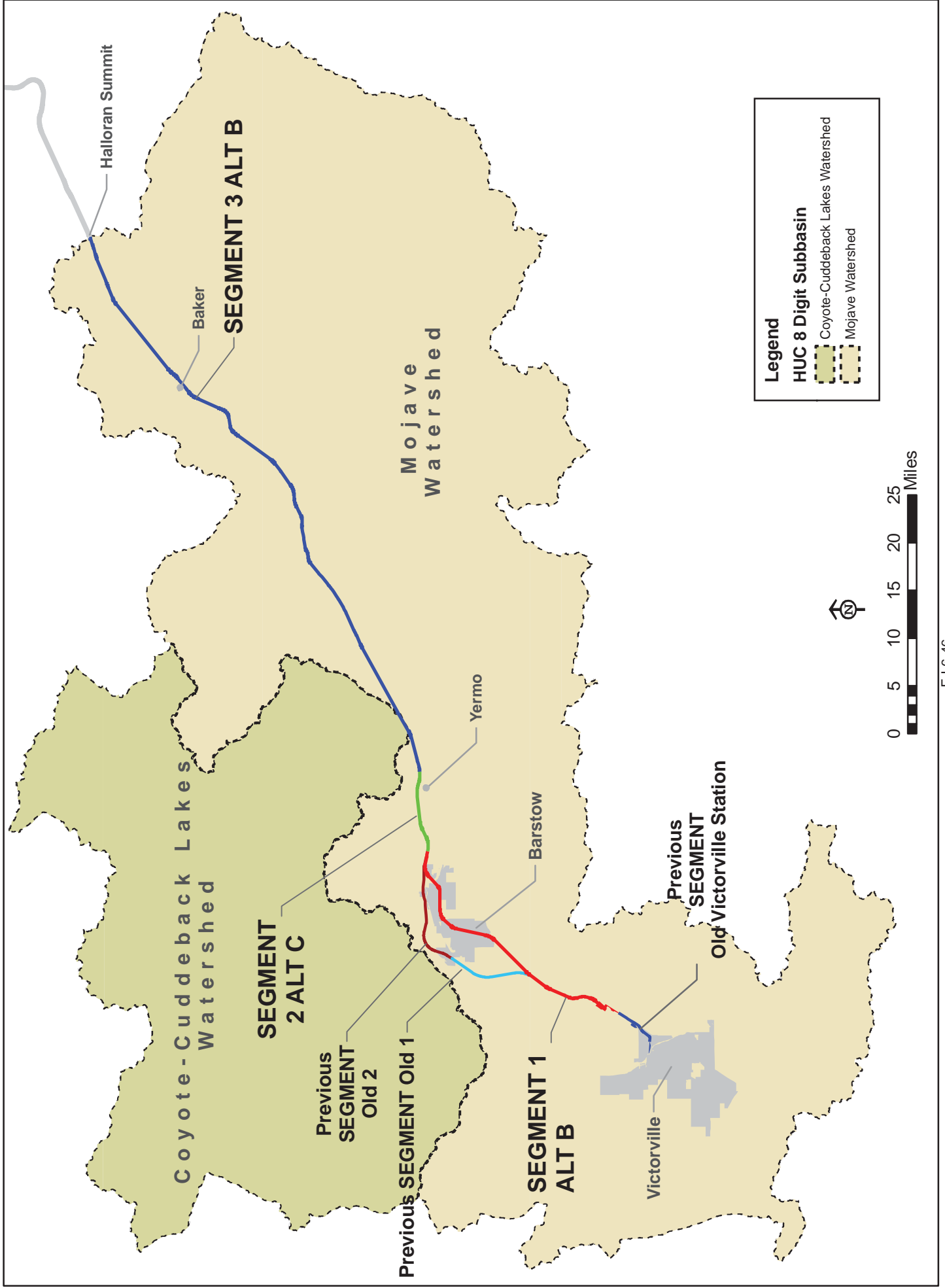


Figure 2. Location Of Alignment Alternatives Within HUC-8 Watersheds

F-1.6-46

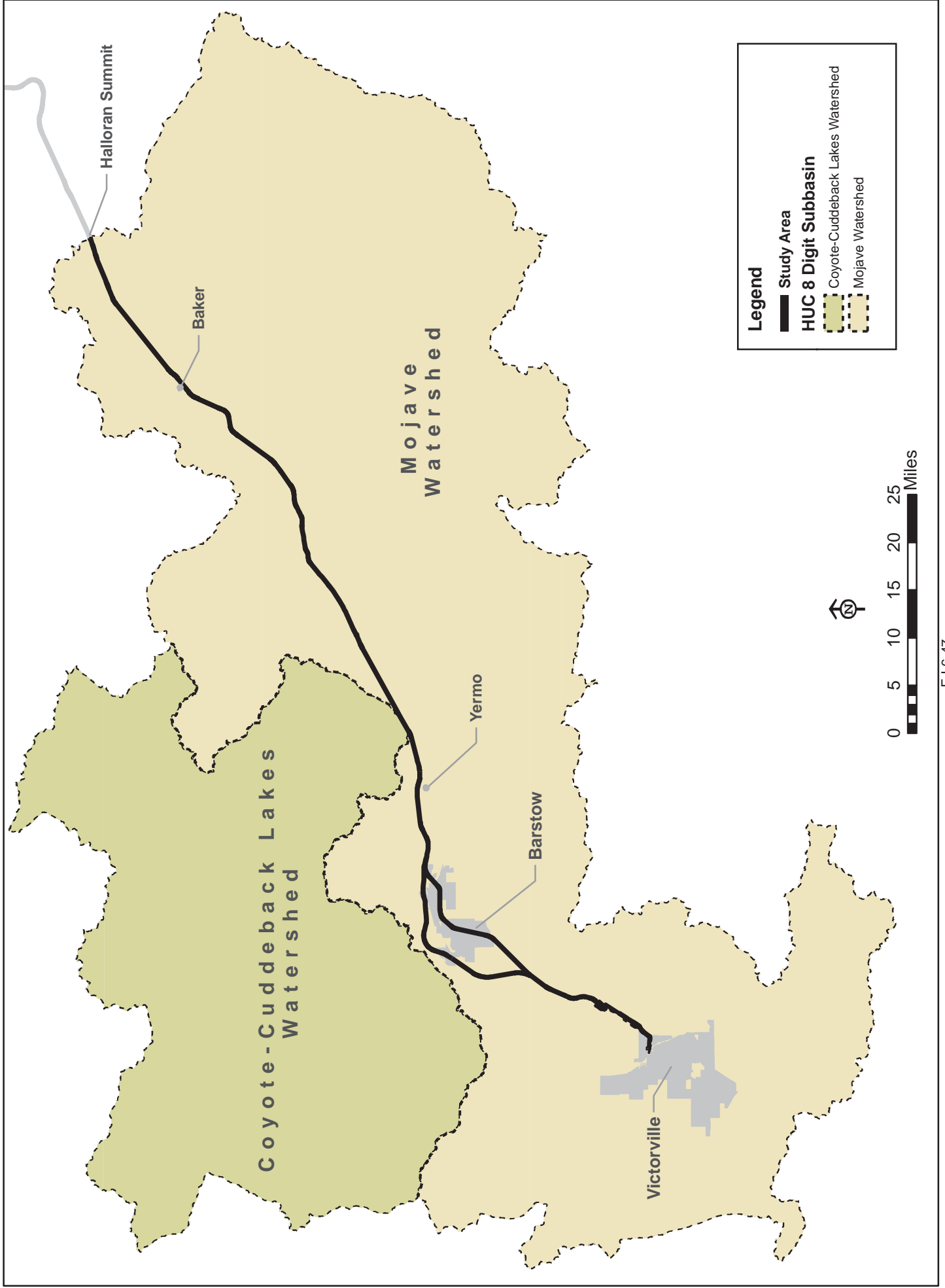


Figure 3. Location of Study Area

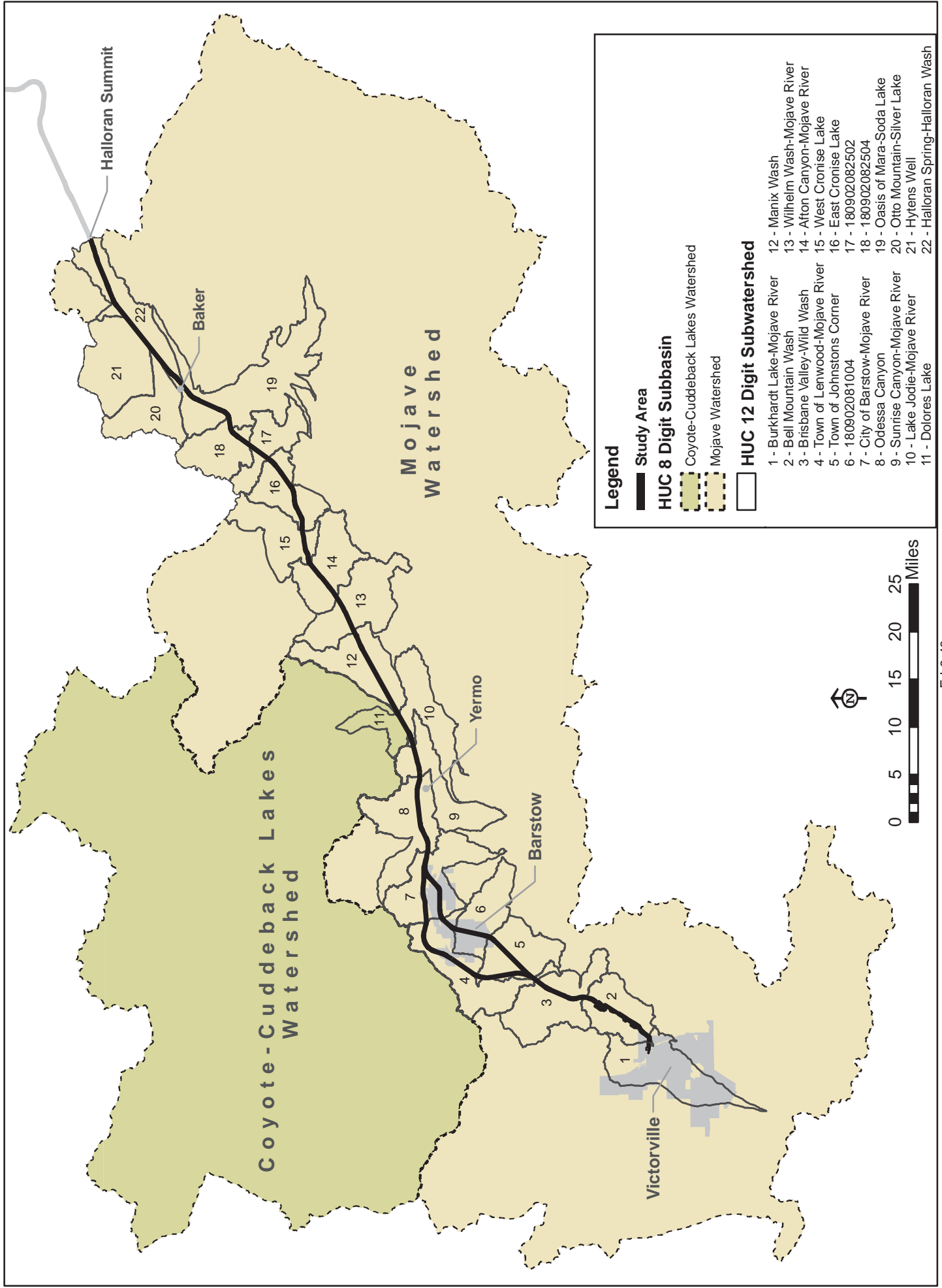


Figure 4. Location of Study Area Within HUC-8 / HUC-12 Watersheds

F-1.6-48



Exhibit A. Figure 5. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 6. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 7. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 8. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.

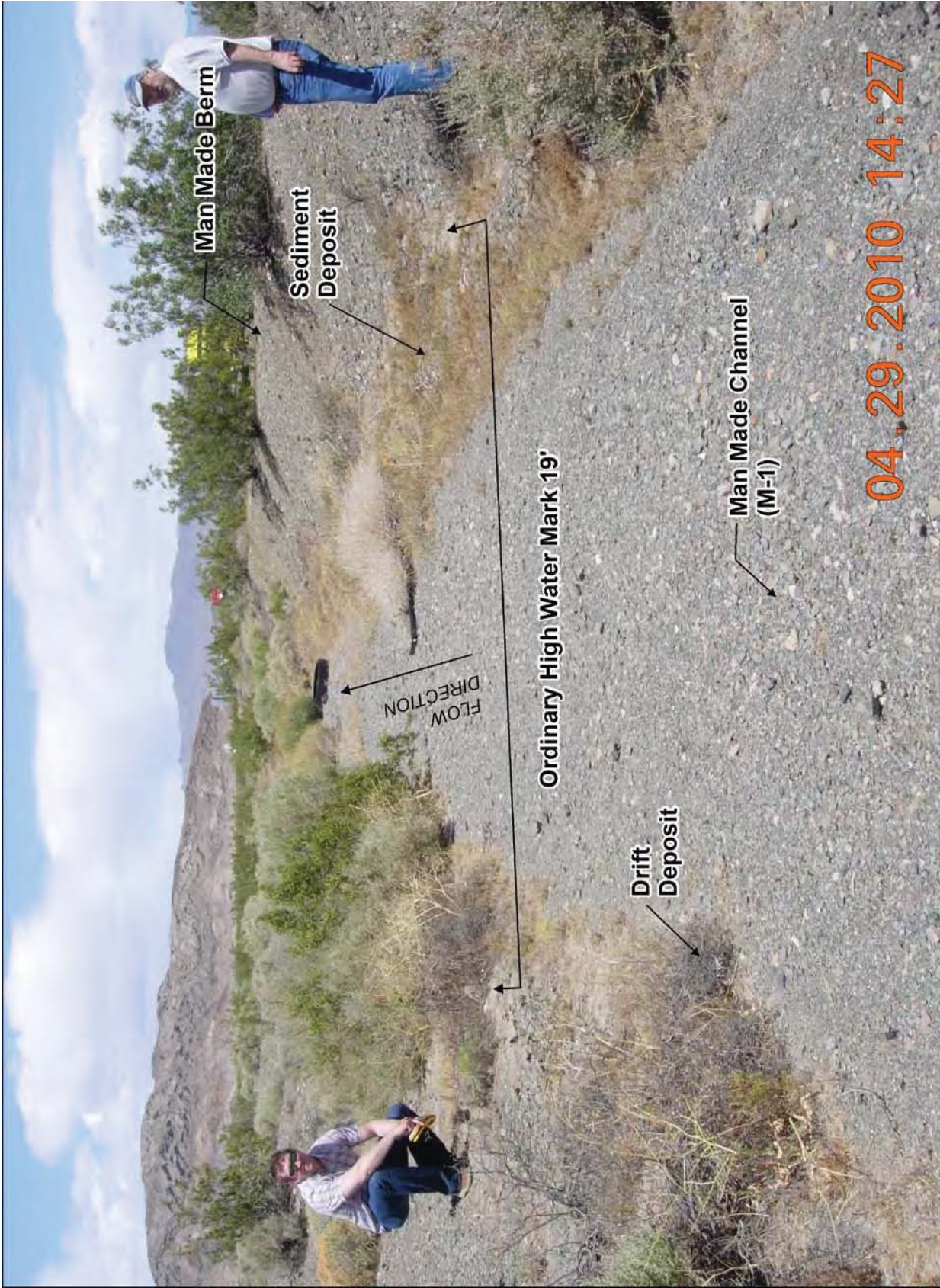


Exhibit A. Figure 9. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 10. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 11. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area. F-1.6-55

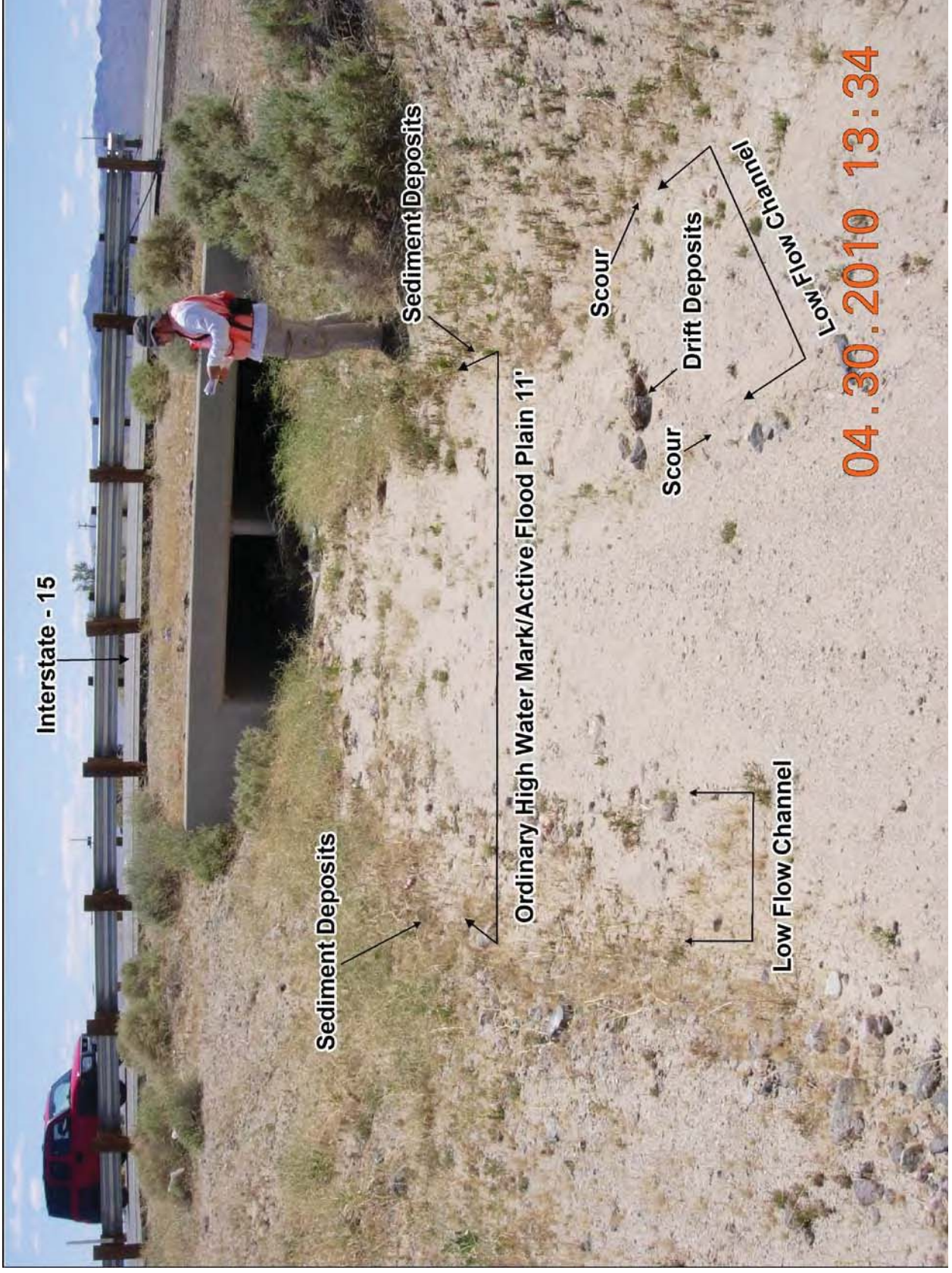


Exhibit A. Figure 12. Typical examples of field indicators of active surface water flow and Ordinary High Water Marks found within ephemerals drainages occurring within the DesertXpress Project Study Area.



Exhibit A. Figure 13. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Bell Mountain Wash Subwatershed



Exhibit A. Figure 14. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Bell Mountain Wash Subwatershed



Exhibit A. Figure 15. Ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed

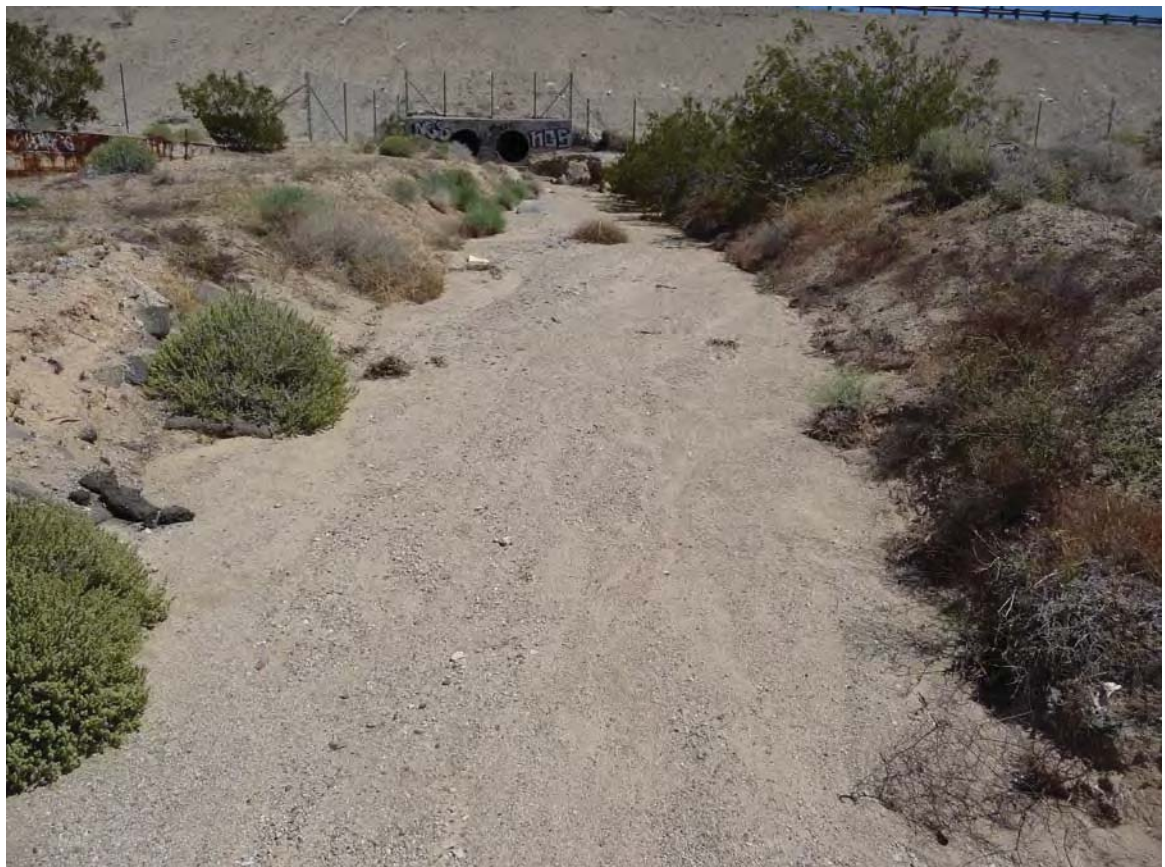


Exhibit A. Figure 16. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed



Exhibit A. Figure 17. Ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed



Exhibit A. Figure 18. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed



Exhibit A. Figure 19. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed



Exhibit A. Figure 20. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Town of Lenwood-Mojave River Subwatershed



Exhibit A. Figure 21. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 City of Barstow - Mojave River Subwatershed



Exhibit A. Figure 22. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 City of Barstow - Mojave River Subwatershed



Exhibit A. Figure 23. Ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Odessa Canyon Subwatershed



Exhibit A. Figure 24. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Odessa Canyon Subwatershed



Exhibit A. Figure 25. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Odessa Canyon Subwatershed



Exhibit A. Figure 26. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Odessa Canyon Subwatershed



Exhibit A. Figure 27. HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Afton Canyon-Mojave River Subwatershed



Exhibit A. Figure 28. Ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 West Cronise Lake Subwatershed



Exhibit A. Figure 29. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 189902082504 Subwatershed



Exhibit A. Figure 30. Manmade drainage connecting to road culvert within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 180902082504 Subwatershed

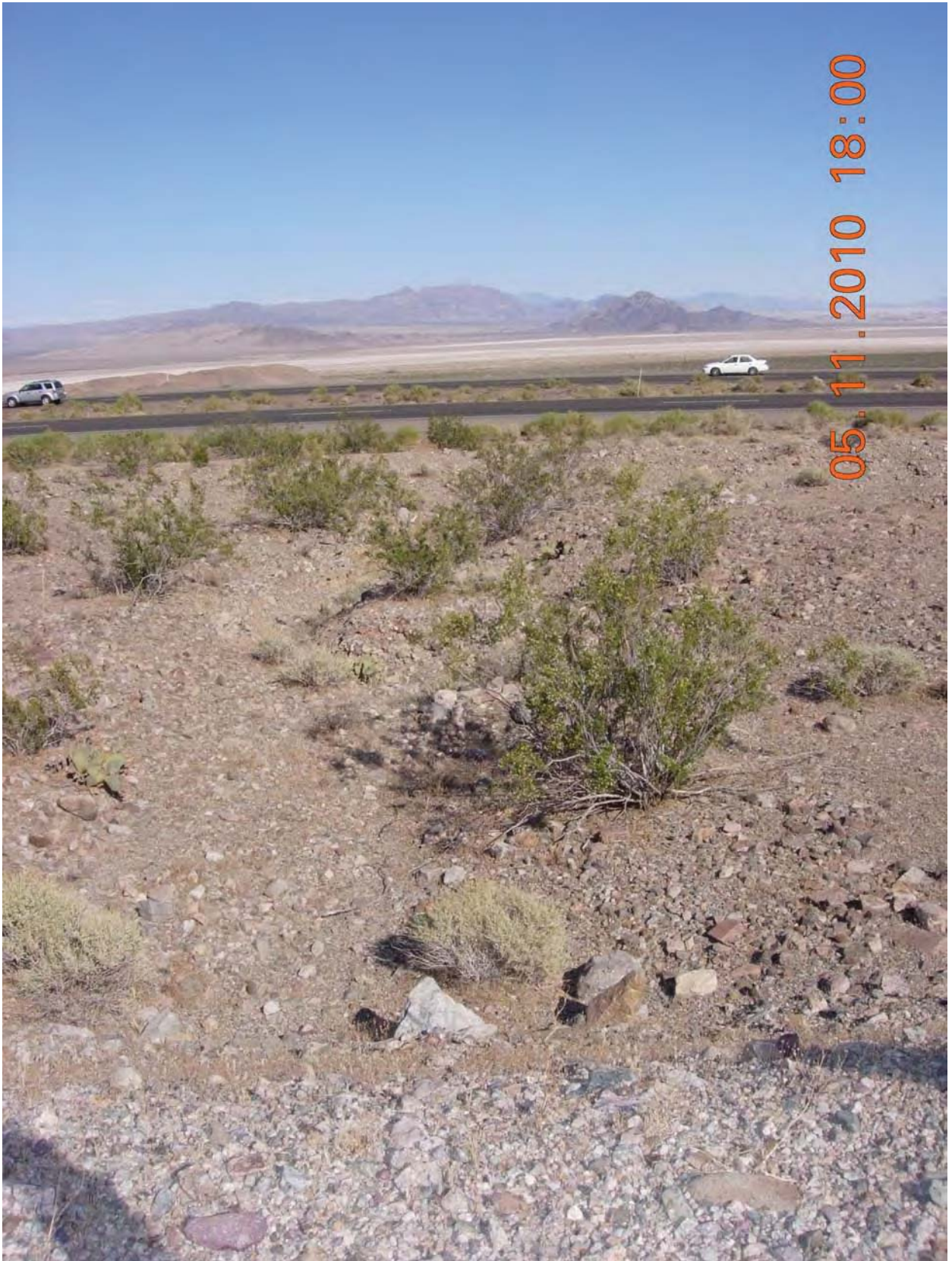


Exhibit A. Figure 31. Ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Oasis of Mara-Soda Lake Subwatershed



Exhibit A. Figure 32. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Halloran Spring-Halloran Wash Subwatershed



Exhibit A. Figure 33. Manmade drainage connecting to ephemeral drainage within HUC 8 Mojave / Coyote-Cuddeback Lakes Watersheds / HUC 12 Odessa Canyon Subwatershed

Exhibit B

Field Data

Exhibit B1 Required Corps Waters Data Summary Table

Exhibit B2 Field Data*

(Exhibit B2 provided on attached CD in PDF format.)

Exhibit B1

Required Corps Waters Data Summary Table

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-2-3	R6	RIVERINE	0.004552	198.3	MRPW	34.660582	-117.212982	Bell Mountain Wash	1.00	
D-2-4	R6	RIVERINE	0.153236	710.1	MRPW	34.658683	-117.213417	Bell Mountain Wash	9.40	
D-2-8	R6	RIVERINE	0.071536	331.5	MRPW	34.656252	-117.214796	Bell Mountain Wash	9.40	
D-2-10	R6	RIVERINE	0.009761	425.2	MRPW	34.655331	-117.214819	Bell Mountain Wash	1.00	
D-2-11	R6	RIVERINE	0.092576	429.0	MRPW	34.653930	-117.215848	Bell Mountain Wash	9.40	
D-2-12	R6	RIVERINE	0.102734	426.2	MRPW	34.653072	-117.216543	Bell Mountain Wash	10.50	
D-2-13	R6	RIVERINE	0.003193	139.1	MRPW	34.653283	-117.216902	Bell Mountain Wash	1.00	
D-2-14	R6	RIVERINE	0.001674	72.9	MRPW	34.650685	-117.218186	Bell Mountain Wash	1.00	
D-2-16	R6	RIVERINE	0.003444	150.0	MRPW	34.649001	-117.220135	Bell Mountain Wash	1.00	2D38
D-2-17	R6	RIVERINE	0.009933	432.7	MRPW	34.649117	-117.220606	Bell Mountain Wash	1.00	
D-2-19	R6	RIVERINE	0.008244	359.1	MRPW	34.648658	-117.220726	Bell Mountain Wash	1.00	
D-2-20	R6	RIVERINE	0.010225	445.4	MRPW	34.648736	-117.221121	Bell Mountain Wash	1.00	
D-2-21	R6	RIVERINE	0.004114	179.2	MRPW	34.649100	-117.220998	Bell Mountain Wash	1.00	
D-2-22	R6	RIVERINE	0.015289	333.0	MRPW	34.648578	-117.221478	Bell Mountain Wash	2.00	2D222VS
D-2-26	R6	RIVERINE	0.023219	107.6	MRPW	34.653365	-117.216878	Bell Mountain Wash	9.40	
D-2-27	R6	RIVERINE	0.000670	29.2	MRPW	34.653542	-117.216901	Bell Mountain Wash	1.00	
D-2-28	R6	RIVERINE	0.066206	306.8	MRPW	34.655658	-117.214344	Bell Mountain Wash	9.40	
D-2-29	R6	RIVERINE	0.005907	257.3	MRPW	34.653081	-117.216841	Bell Mountain Wash	1.00	
D-2-30	R6	RIVERINE	0.002911	126.8	MRPW	34.653101	-117.216730	Bell Mountain Wash	1.00	
D-2-31	R6	RIVERINE	0.002482	108.1	MRPW	34.653316	-117.216889	Bell Mountain Wash	1.00	
D-2-32	R6	RIVERINE	0.002551	111.1	MRPW	34.653249	-117.216982	Bell Mountain Wash	1.00	
D-2-33	R6	RIVERINE	0.005131	223.5	MRPW	34.653054	-117.217003	Bell Mountain Wash	1.00	
D-2-34	R6	RIVERINE	0.009862	429.6	MRPW	34.652733	-117.217034	Bell Mountain Wash	1.00	
D-2-37	R6	RIVERINE	0.017066	743.4	MRPW	34.642848	-117.223097	Bell Mountain Wash	1.00	2D194VS
D-2-38	R6	RIVERINE	0.018983	826.9	MRPW	34.643564	-117.223214	Bell Mountain Wash	1.00	
D-2-39	R6	RIVERINE	0.016334	711.5	MRPW	34.642555	-117.223563	Bell Mountain Wash	1.00	2D192VS
D-2-40	R6	RIVERINE	0.008609	375.0	MRPW	34.642146	-117.223280	Bell Mountain Wash	1.00	2D191VS
D-2-43	R6	RIVERINE	0.051538	2245.0	MRPW	34.645043	-117.228717	Bell Mountain Wash	1.00	2D203VS
D-2-48	R6	RIVERINE	0.013965	608.3	MRPW	34.643853	-117.231031	Bell Mountain Wash	1.00	
D-2-49	R6	RIVERINE	0.009107	396.7	MRPW	34.644259	-117.232223	Bell Mountain Wash	1.00	
D-2-54	R6	RIVERINE	0.024458	1065.4	MRPW	34.635915	-117.226839	Bell Mountain Wash	1.00	2D126VS
D-2-55	R6	RIVERINE	0.030551	1330.8	MRPW	34.635799	-117.227450	Bell Mountain Wash	1.00	2D132VS
D-2-56	R6	RIVERINE	0.004591	200.0	MRPW	34.635140	-117.225923	Bell Mountain Wash	1.00	2D125VS
D-2-57	R6	RIVERINE	0.004137	180.2	MRPW	34.635277	-117.226446	Bell Mountain Wash	1.00	
D-2-58	R6	RIVERINE	0.002815	122.6	MRPW	34.635806	-117.227180	Bell Mountain Wash	1.00	2D129VS
D-2-59	R6	RIVERINE	0.003489	152.0	MRPW	34.635608	-117.227028	Bell Mountain Wash	1.00	
D-2-61	R6	RIVERINE	0.041322	1200.0	MRPW	34.635045	-117.227848	Bell Mountain Wash	1.50	2D121VS
D-2-63	R6	RIVERINE	0.031561	1374.8	MRPW	34.640814	-117.226927	Bell Mountain Wash	1.00	2D173VS

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-2-66	R6	RIVERINE	0.012955	564.3	MRPW	34.631918	-117.228458	Bell Mountain Wash	1.00			
D-2-67	R6	RIVERINE	0.010932	476.2	MRPW	34.631753	-117.228584	Bell Mountain Wash	1.00	2D112VS		
D-2-68	R6	RIVERINE	0.005064	220.6	MRPW	34.631149	-117.228790	Bell Mountain Wash	1.00			
D-2-69	R6	RIVERINE	0.007631	332.4	MRPW	34.629606	-117.230844	Bell Mountain Wash	1.00	2D43AVS		
D-2-70	R6	RIVERINE	0.005227	227.7	MRPW	34.629342	-117.230514	Bell Mountain Wash	1.00			
D-2-71	R6	RIVERINE	0.002002	87.2	MRPW	34.629249	-117.230384	Bell Mountain Wash	1.00			
D-2-72	R6	RIVERINE	0.030803	670.9	MRPW	34.628773	-117.230666	Bell Mountain Wash	2.00	2MD44VS		
D-2-74B	R6	RIVERINE	0.010413	453.6	MRPW	34.628588	-117.232086	Bell Mountain Wash	1.00	2D101VS		
D-2-75	R6	RIVERINE	0.003602	156.9	MRPW	34.627501	-117.231494	Bell Mountain Wash	1.00			
D-2-76	R6	RIVERINE	0.004589	199.9	MRPW	34.628623	-117.232427	Bell Mountain Wash	1.00			
D-2-77	R6	RIVERINE	0.003157	137.5	MRPW	34.628765	-117.232372	Bell Mountain Wash	1.00			
D-2-78	R6	RIVERINE	0.001240	54.0	MRPW	34.628577	-117.232806	Bell Mountain Wash	1.00			
D-2-82	R6	RIVERINE	0.006084	265.0	MRPW	34.628495	-117.232450	Bell Mountain Wash	1.00			
D-2-83	R6	RIVERINE	0.002929	127.6	MRPW	34.628053	-117.232200	Bell Mountain Wash	1.00	2D100VS		
D-2-84	R6	RIVERINE	0.014954	651.4	MRPW	34.627807	-117.232372	Bell Mountain Wash	1.00	2D98VS		
D-2-85	R6	RIVERINE	0.004773	207.9	MRPW	34.627897	-117.233404	Bell Mountain Wash	1.00			
D-2-86	R6	RIVERINE	0.001084	47.2	MRPW	34.628132	-117.233310	Bell Mountain Wash	1.00			
D-2-87	R6	RIVERINE	0.002596	113.1	MRPW	34.628076	-117.233017	Bell Mountain Wash	1.00			
D-2-88	R6	RIVERINE	0.009805	427.1	MRPW	34.627612	-117.233166	Bell Mountain Wash	1.00			
D-2-89	R6	RIVERINE	0.001144	99.7	MRPW	34.627876	-117.232450	Bell Mountain Wash	0.50	2D99VS		
D-2-90	R6	RIVERINE	0.007649	333.2	MRPW	34.627505	-117.233787	Bell Mountain Wash	1.00			
D-2-91	R6	RIVERINE	0.003607	157.1	MRPW	34.627517	-117.231783	Bell Mountain Wash	1.00			
D-2-92	R6	RIVERINE	0.035092	764.3	MRPW	34.626630	-117.232230	Bell Mountain Wash	2.00			
D-2-93	R6	RIVERINE	0.119550	1108.0	MRPW	34.626821	-117.234309	Bell Mountain Wash	4.70	2MD51VS		
D-2-94	R6	RIVERINE	0.018848	410.5	MRPW	34.626773	-117.234828	Bell Mountain Wash	2.00			
D-2-95	R6	RIVERINE	0.034457	283.2	MRPW	34.626556	-117.235054	Bell Mountain Wash	5.30	2D26VS		
D-2-96	R6	RIVERINE	0.014304	623.1	MRPW	34.626781	-117.233482	Bell Mountain Wash	1.00	2D17VS		
D-2-97	R6	RIVERINE	0.009325	406.2	MRPW	34.626541	-117.233313	Bell Mountain Wash	1.00	2D21VS		
D-2-98	R6	RIVERINE	0.142828	888.8	MRPW	34.625879	-117.235665	Bell Mountain Wash	7.00	2MD63VS		
D-2-99	R6	RIVERINE	0.006065	264.2	MRPW	34.625379	-117.233758	Bell Mountain Wash	1.00			
D-2-104	R6	RIVERINE	0.194910	1212.9	MRPW	34.625072	-117.235479	Bell Mountain Wash	7.00			
D-2-105	R6	RIVERINE	0.003170	138.1	MRPW	34.623984	-117.234391	Bell Mountain Wash	1.00			
D-2-109	R6	RIVERINE	0.009144	398.3	MRPW	34.624792	-117.234809	Bell Mountain Wash	1.00			
D-2-110	R6	RIVERINE	0.012893	561.6	MRPW	34.624772	-117.235405	Bell Mountain Wash	1.00	2D87VS		
D-2-111	R6	RIVERINE	0.012312	536.3	MRPW	34.626022	-117.236044	Bell Mountain Wash	1.00	2D29VS		
D-2-113	R6	RIVERINE	0.019506	849.7	MRPW	34.624966	-117.236150	Bell Mountain Wash	1.00	2D86VS		
D-2-117	R6	RIVERINE	0.013687	596.2	MRPW	34.623333	-117.234642	Bell Mountain Wash	1.00			
D-2-120	R6	RIVERINE	0.028831	1255.9	MRPW	34.621905	-117.237562	Bell Mountain Wash	1.00	2D77VS		

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-2-124	R6	RIVERINE	0.005879	256.1	MRPW	34.622364	-117.237909	Bell Mountain Wash	1.00			
D-2-144	R6	RIVERINE	0.005900	257.0	MRPW	34.621807	-117.237720	Bell Mountain Wash	1.00			
D-2-150	R6	RIVERINE	0.005503	239.7	MRPW	34.620739	-117.238336	Bell Mountain Wash	1.00			
D-2-152	R6	RIVERINE	0.001536	66.9	MRPW	34.620826	-117.238588	Bell Mountain Wash	1.00			
D-2-153	R6	RIVERINE	0.018564	539.1	MRPW	34.620015	-117.238071	Bell Mountain Wash	1.50	2D68VS		
D-2-156	R6	RIVERINE	0.006788	295.7	MRPW	34.619644	-117.237824	Bell Mountain Wash	1.00			
D-2-157	R6	RIVERINE	0.007615	331.7	MRPW	34.619674	-117.239182	Bell Mountain Wash	1.00			
D-2-158	R6	RIVERINE	0.027397	795.6	MRPW	34.619252	-117.238497	Bell Mountain Wash	1.50	2D67VS		
D-2-163	R6	RIVERINE	0.023581	513.6	MRPW	34.618611	-117.239164	Bell Mountain Wash	2.00	2D66VS		
D-2-169	R6	RIVERINE	0.046972	292.3	MRPW	34.616682	-117.240581	Bell Mountain Wash	7.00			
D-2-170	R6	RIVERINE	0.035755	222.5	MRPW	34.616651	-117.240699	Bell Mountain Wash	7.00			
D-2-192	R6	RIVERINE	0.113733	825.7	MRPW	34.648459	-117.227369	Bell Mountain Wash	6.00	2D224VS		
D-2-193	R6	RIVERINE	0.068457	2982.0	MRPW	34.646448	-117.224252	Bell Mountain Wash	1.00	2D36VS		
D-2-194	R6	RIVERINE	0.011632	506.7	MRPW	34.643824	-117.231551	Bell Mountain Wash	1.00			
D-2-195	R6	RIVERINE	0.004353	189.6	MRPW	34.643474	-117.231314	Bell Mountain Wash	1.00			
D-2-196	R6	RIVERINE	0.028274	1231.6	MRPW	34.642221	-117.230005	Bell Mountain Wash	1.00			
D-2-197	R6	RIVERINE	0.016224	706.7	MRPW	34.639891	-117.226283	Bell Mountain Wash	1.00	2D178VS		
D-2-198	R6	RIVERINE	0.006593	287.2	MRPW	34.639587	-117.225873	Bell Mountain Wash	1.00			
D-2-209	R6	RIVERINE	0.021419	933.0	MRPW	34.640676	-117.226105	Bell Mountain Wash	1.00	2D177VS		
D-2-211	R6	RIVERINE	0.015140	659.5	MRPW	34.639730	-117.226518	Bell Mountain Wash	1.00	2D174VS		
D-2-218	R6	RIVERINE	0.038632	1682.8	MRPW	34.633652	-117.229399	Bell Mountain Wash	1.00	2D115VS		
D-2-219	R6	RIVERINE	0.005944	258.9	MRPW	34.632938	-117.227420	Bell Mountain Wash	1.00			
D-2-221	R6	RIVERINE	0.053437	1551.8	MRPW	34.633959	-117.228477	Bell Mountain Wash	1.50	2D116VS		
D-2-222	R6	RIVERINE	0.003223	140.4	MRPW	34.632882	-117.227118	Bell Mountain Wash	1.00			
D-2-223	R6	RIVERINE	0.008747	381.0	MRPW	34.634943	-117.228294	Bell Mountain Wash	1.00			
D-2-224	R6	RIVERINE	0.007872	342.9	MRPW	34.635154	-117.227717	Bell Mountain Wash	1.00			
D-2-225	R6	RIVERINE	0.002725	118.7	MRPW	34.631000	-117.229823	Bell Mountain Wash	1.00			
D-2-227	R6	RIVERINE	0.001915	83.4	MRPW	34.631102	-117.228628	Bell Mountain Wash	1.00			
D-2-228	R6	RIVERINE	0.002833	123.4	MRPW	34.631082	-117.228728	Bell Mountain Wash	1.00			
D-2-231	R6	RIVERINE	0.002202	95.9	MRPW	34.628762	-117.232593	Bell Mountain Wash	1.00			
D-2-232	R6	RIVERINE	0.003799	165.5	MRPW	34.628712	-117.232474	Bell Mountain Wash	1.00			
D-2-243	R6	RIVERINE	0.027769	806.4	MRPW	34.620528	-117.237849	Bell Mountain Wash	1.50	2D69VS		
D-2-244	R6	RIVERINE	0.009125	397.5	MRPW	34.620134	-117.237001	Bell Mountain Wash	1.00			
D-2-245	R6	RIVERINE	0.046264	1343.5	MRPW	34.623739	-117.236475	Bell Mountain Wash	1.50	2D80VS		
D-2-246	R6	RIVERINE	0.067611	1280.5	MRPW	34.625976	-117.234528	Bell Mountain Wash	2.30	2D61VS		
D-2-247	R6	RIVERINE	0.024959	543.6	MRPW	34.626632	-117.235468	Bell Mountain Wash	2.00	2D27VS		
D-2-248	R6	RIVERINE	0.014953	122.9	MRPW	34.626548	-117.234383	Bell Mountain Wash	5.30			
D-2-249	R6	RIVERINE	0.016350	356.1	MRPW	34.626724	-117.235045	Bell Mountain Wash	2.00	2D25VS		

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-2-250	R6	RIVERINE	0.003058	133.2	MRPW	34.627287	-117.235163	Bell Mountain Wash	1.00			
D-2-251	R6	RIVERINE	0.092187	427.2	MRPW	34.626347	-117.233612	Bell Mountain Wash	9.40	2MD23VS		
D-2-252	R6	RIVERINE	0.007920	345.0	MRPW	34.626445	-117.233661	Bell Mountain Wash	1.00			
D-2-253	R6	RIVERINE	0.02002	239.6	MRPW	34.626452	-117.233347	Bell Mountain Wash	4.00	2MD22VS		
D-2-254	R6	RIVERINE	0.006947	151.3	MRPW	34.626583	-117.233289	Bell Mountain Wash	2.00	2D20VS		
D-2-255	R6	RIVERINE	0.004180	182.1	MRPW	34.626558	-117.233133	Bell Mountain Wash	1.00	2D19VS		
D-2-256	R6	RIVERINE	0.004104	357.5	MRPW	34.626746	-117.232823	Bell Mountain Wash	0.50	2D16VS		
D-2-257	R6	RIVERINE	0.016374	310.1	MRPW	34.626998	-117.232148	Bell Mountain Wash	2.30	2D48VS		
D-2-259	R6	RIVERINE	0.004694	340.8	MRPW	34.628897	-117.231142	Bell Mountain Wash	0.60	2D45VS		
D-2-260	R6	RIVERINE	0.038710	843.1	MRPW	34.628421	-117.231292	Bell Mountain Wash	2.00	2D13VS		
D-2-261	R6	RIVERINE	0.017525	381.7	MRPW	34.630564	-117.229896	Bell Mountain Wash	2.00	2D107VS		
D-2-262	R6	RIVERINE	0.000836	36.4	MRPW	34.630945	-117.230029	Bell Mountain Wash	1.00			
D-2-263	R6	RIVERINE	0.001981	86.3	MRPW	34.630922	-117.229958	Bell Mountain Wash	1.00			
D-2-264	R6	RIVERINE	0.008062	351.2	MRPW	34.631342	-117.229133	Bell Mountain Wash	1.00	2D110VS		
D-2-265	R6	RIVERINE	0.010186	443.7	MRPW	34.631581	-117.228757	Bell Mountain Wash	1.00			
D-2-266	R6	RIVERINE	0.029610	644.9	MRPW	34.630821	-117.229390	Bell Mountain Wash	2.00			
D-2-267	R6	RIVERINE	0.015809	459.1	MRPW	34.632548	-117.228023	Bell Mountain Wash	1.50	2D114VS		
D-2-268	R6	RIVERINE	0.006281	273.6	MRPW	34.634358	-117.230291	Bell Mountain Wash	1.00			
D-2-269	R6	RIVERINE	0.006304	274.6	MRPW	34.634041	-117.230193	Bell Mountain Wash	1.00			
D-2-270	R6	RIVERINE	0.009683	281.2	MRPW	34.634394	-117.226582	Bell Mountain Wash	1.50	2D120VS		
D-2-272	R6	RIVERINE	0.017500	762.3	MRPW	34.636354	-117.233493	Bell Mountain Wash	1.00			
D-2-273	R6	RIVERINE	0.017599	766.6	MRPW	34.635640	-117.234006	Bell Mountain Wash	1.00			
D-2-274	R6	RIVERINE	0.012500	544.5	MRPW	34.636253	-117.233917	Bell Mountain Wash	1.00			
D-2-275	R6	RIVERINE	0.026357	1148.1	MRPW	34.636324	-117.232648	Bell Mountain Wash	1.00	2D45AVS		
D-2-276	R6	RIVERINE	0.076498	2221.5	MRPW	34.635262	-117.229382	Bell Mountain Wash	1.50	2D11VS		
D-2-277	R6	RIVERINE	0.017011	741.0	MRPW	34.636958	-117.231782	Bell Mountain Wash	1.00	2D135VS		
D-2-278	R6	RIVERINE	0.024947	1086.7	MRPW	34.636480	-117.232270	Bell Mountain Wash	1.00	2D137VS		
D-2-279	R6	RIVERINE	0.046667	2032.8	MRPW	34.635704	-117.228761	Bell Mountain Wash	1.00	2D123VS		
D-2-280	R6	RIVERINE	0.008671	377.7	MRPW	34.635651	-117.229640	Bell Mountain Wash	1.00			
D-2-281	R6	RIVERINE	0.002835	123.5	MRPW	34.635851	-117.229483	Bell Mountain Wash	1.00			
D-2-282	R6	RIVERINE	0.011685	509.0	MRPW	34.638104	-117.233528	Bell Mountain Wash	1.00	2D152VS		
D-2-283	R6	RIVERINE	0.001635	71.2	MRPW	34.637998	-117.234182	Bell Mountain Wash	1.00			
D-2-284	R6	RIVERINE	0.025707	1119.8	MRPW	34.637736	-117.232615	Bell Mountain Wash	1.00	2D140VS		
D-2-285	R6	RIVERINE	0.027404	1193.7	MRPW	34.638016	-117.232129	Bell Mountain Wash	1.00	2D148VS		
D-2-286	R6	RIVERINE	0.002335	101.7	MRPW	34.639182	-117.234153	Bell Mountain Wash	1.00			
D-2-288	R6	RIVERINE	0.002984	130.0	MRPW	34.638396	-117.231078	Bell Mountain Wash	1.00			
D-2-289	R6	RIVERINE	0.006382	278.0	MRPW	34.638332	-117.232455	Bell Mountain Wash	1.00			
D-2-291	R6	RIVERINE	0.012160	529.7	MRPW	34.636249	-117.228355	Bell Mountain Wash	1.00	2D131VS		

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-2-292	R6	RIVERINE	0.002029	88.4	MRPW	34.636046	-117.228204	Bell Mountain Wash	1.00	
D-2-293	R6	RIVERINE	0.055909	2435.4	MRPW	34.638151	-117.230662	Bell Mountain Wash	1.00	2D43VS
D-2-294	R6	RIVERINE	0.003030	132.0	MRPW	34.636608	-117.228090	Bell Mountain Wash	1.00	
D-2-295	R6	RIVERINE	0.012118	351.9	MRPW	34.638362	-117.230331	Bell Mountain Wash	1.50	2D153VS
D-2-296	R6	RIVERINE	0.072275	3148.3	MRPW	34.638310	-117.229784	Bell Mountain Wash	1.00	2D157VS
D-2-297	R6	RIVERINE	0.006809	296.6	MRPW	34.640877	-117.232915	Bell Mountain Wash	1.00	
D-2-298	R6	RIVERINE	0.002392	104.2	MRPW	34.640743	-117.232885	Bell Mountain Wash	1.00	
D-2-299	R6	RIVERINE	0.016001	697.0	MRPW	34.640587	-117.233222	Bell Mountain Wash	1.00	
D-2-300	R6	RIVERINE	0.066258	1443.1	MRPW	34.640740	-117.232366	Bell Mountain Wash	2.00	2D176VS
D-2-301	R6	RIVERINE	0.007537	328.3	MRPW	34.641234	-117.233883	Bell Mountain Wash	1.00	
D-2-302	R6	RIVERINE	0.032399	1411.3	MRPW	34.638499	-117.229333	Bell Mountain Wash	1.00	2D9VS
D-2-303	R6	RIVERINE	0.005218	227.3	MRPW	34.638209	-117.227199	Bell Mountain Wash	1.00	2D147VS
D-2-304	R6	RIVERINE	0.001791	78.0	MRPW	34.641790	-117.234283	Bell Mountain Wash	1.00	
D-2-305	R6	RIVERINE	0.003655	159.2	MRPW	34.641564	-117.234121	Bell Mountain Wash	1.00	
D-2-306	R6	RIVERINE	0.040269	1754.1	MRPW	34.640886	-117.232248	Bell Mountain Wash	1.00	2D182VS
D-2-307	R6	RIVERINE	0.018434	446.1	MRPW	34.639317	-117.229678	Bell Mountain Wash	1.80	
D-2-308	R6	RIVERINE	0.014405	348.6	MRPW	34.639350	-117.229278	Bell Mountain Wash	1.80	
D-2-309	R6	RIVERINE	0.009373	408.3	MRPW	34.638487	-117.228471	Bell Mountain Wash	1.00	
D-2-310	R6	RIVERINE	0.007881	343.3	MRPW	34.640661	-117.231948	Bell Mountain Wash	1.00	
D-2-311	R6	RIVERINE	0.014851	646.9	MRPW	34.640359	-117.230752	Bell Mountain Wash	1.00	
D-2-313	R6	RIVERINE	0.011012	479.7	MRPW	34.642287	-117.233853	Bell Mountain Wash	1.00	
D-2-316	R6	RIVERINE	0.012332	537.2	MRPW	34.644051	-117.232251	Bell Mountain Wash	1.00	
D-2-317	R6	RIVERINE	0.010324	449.7	MRPW	34.639803	-117.226939	Bell Mountain Wash	1.00	2D7VS
D-2-318	R6	RIVERINE	0.006853	298.5	MRPW	34.641753	-117.233666	Bell Mountain Wash	1.00	
D-2-319	R6	RIVERINE	0.046067	2006.7	MRPW	34.643879	-117.229603	Bell Mountain Wash	1.00	
D-2-320	R6	RIVERINE	0.024394	1062.6	MRPW	34.642935	-117.227175	Bell Mountain Wash	1.00	2MD195VS
D-2-321	R6	RIVERINE	0.006485	282.5	MRPW	34.644525	-117.232246	Bell Mountain Wash	1.00	
D-2-322	R6	RIVERINE	0.001458	63.5	MRPW	34.644543	-117.232138	Bell Mountain Wash	1.00	
D-2-323	R6	RIVERINE	0.045735	1992.2	MRPW	34.642577	-117.230075	Bell Mountain Wash	1.00	2MD184VS
D-2-324	R6	RIVERINE	0.003439	149.8	MRPW	34.643018	-117.230825	Bell Mountain Wash	1.00	
D-2-325	R6	RIVERINE	0.003446	150.1	MRPW	34.643102	-117.230747	Bell Mountain Wash	1.00	
D-2-326	R6	RIVERINE	0.025567	1113.7	MRPW	34.641559	-117.229972	Bell Mountain Wash	1.00	
D-2-327	R6	RIVERINE	0.002319	101.0	MRPW	34.642108	-117.229575	Bell Mountain Wash	1.00	
D-2-328	R6	RIVERINE	0.015053	655.7	MRPW	34.642986	-117.229782	Bell Mountain Wash	1.00	
D-2-329	R6	RIVERINE	0.050902	2217.3	MRPW	34.643394	-117.225591	Bell Mountain Wash	1.00	
D-2-330	R6	RIVERINE	0.018205	793.0	MRPW	34.641716	-117.224207	Bell Mountain Wash	1.00	2D189VS
D-2-331	R6	RIVERINE	0.008191	356.8	MRPW	34.642401	-117.224484	Bell Mountain Wash	1.00	
D-2-332	R6	RIVERINE	0.001166	50.8	MRPW	34.642134	-117.224150	Bell Mountain Wash	1.00	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point		
D-2-333	R6	RIVERINE	0.002916	127.0	MRPW	34.642568	-117.224672	Bell Mountain Wash	1.00			
D-2-334	R6	RIVERINE	0.003528	153.7	MRPW	34.642910	-117.224250	Bell Mountain Wash	1.00			
D-2-335	R6	RIVERINE	0.020806	1208.4	MRPW	34.639036	-117.228320	Bell Mountain Wash	0.75	2D8VS		
D-2-336	R6	RIVERINE	0.004426	192.8	MRPW	34.639550	-117.225757	Bell Mountain Wash	1.00	2D165VS		
D-2-337	R6	RIVERINE	0.001162	50.6	MRPW	34.642134	-117.224150	Bell Mountain Wash	1.00			
D-2-338	R6	RIVERINE	0.020645	899.3	MRPW	34.644584	-117.221859	Bell Mountain Wash	1.00	2D37VS		
D-2-339	R6	RIVERINE	0.012851	373.2	MRPW	34.644127	-117.223179	Bell Mountain Wash	1.50	2D8AVS		
D-2-340	R6	RIVERINE	0.006651	579.4	MRPW	34.644323	-117.223057	Bell Mountain Wash	0.50	2D7AVS		
D-2-341	R6	RIVERINE	0.001874	408.2	MRPW	34.644716	-117.222556	Bell Mountain Wash	0.20	2D38VS		
D-2-342	R6	RIVERINE	0.013137	1430.6	MRPW	34.644271	-117.222782	Bell Mountain Wash	0.40	2D39VS		
D-2-343	R6	RIVERINE	0.005294	230.6	MRPW	34.645493	-117.224060	Bell Mountain Wash	1.00			
D-2-344	R6	RIVERINE	0.005278	229.9	MRPW	34.644374	-117.223744	Bell Mountain Wash	1.00			
D-2-345	R6	RIVERINE	0.024979	1088.1	MRPW	34.646008	-117.220618	Bell Mountain Wash	1.00	2D214VS		
D-2-346	R6	RIVERINE	0.017890	779.3	MRPW	34.647156	-117.221827	Bell Mountain Wash	1.00	2D2VS		
D-2-347	R6	RIVERINE	0.003407	148.4	MRPW	34.650599	-117.227264	Bell Mountain Wash	1.00			
D-2-348	R6	RIVERINE	0.007300	318.0	MRPW	34.650461	-117.227070	Bell Mountain Wash	1.00			
D-2-349	R6	RIVERINE	0.018207	793.1	MRPW	34.649911	-117.226583	Bell Mountain Wash	1.00			
D-2-350	R6	RIVERINE	0.026253	1143.6	MRPW	34.649253	-117.226455	Bell Mountain Wash	1.00			
D-2-351	R6	RIVERINE	0.086870	2522.7	MRPW	34.648233	-117.224950	Bell Mountain Wash	1.50	2D229VS		
D-2-352	R6	RIVERINE	0.007521	327.6	MRPW	34.644936	-117.220299	Bell Mountain Wash	1.00	2D210VS		
D-2-353	R6	RIVERINE	0.006348	276.5	MRPW	34.648149	-117.224188	Bell Mountain Wash	1.00			
D-2-354	R6	RIVERINE	0.005333	232.3	MRPW	34.647749	-117.227200	Bell Mountain Wash	1.00			
D-2-355	R6	RIVERINE	0.010560	460.0	MRPW	34.648145	-117.228242	Bell Mountain Wash	1.00	2D220VS		
D-2-356	R6	RIVERINE	0.003129	136.3	MRPW	34.648204	-117.228879	Bell Mountain Wash	1.00			
D-2-357	R6	RIVERINE	0.010859	473.0	MRPW	34.648001	-117.228530	Bell Mountain Wash	1.00	2D219VS		
D-2-358	R6	RIVERINE	0.019341	842.5	MRPW	34.645833	-117.224069	Bell Mountain Wash	1.00			
D-2-359	R6	RIVERINE	0.009155	398.8	MRPW	34.645579	-117.222795	Bell Mountain Wash	1.00			
D-2-360	R6	RIVERINE	0.026798	1167.3	MRPW	34.645375	-117.221579	Bell Mountain Wash	1.00	2D207VS		
D-2-361	R6	RIVERINE	0.014421	104.7	MRPW	34.648678	-117.228598	Bell Mountain Wash	6.00			
D-2-362	R6	RIVERINE	0.015390	670.4	MRPW	34.646417	-117.225108	Bell Mountain Wash	1.00			
D-2-363	R6	RIVERINE	0.023274	1013.8	MRPW	34.646537	-117.226201	Bell Mountain Wash	1.00	2D215VS		
D-2-364	R6	RIVERINE	0.002204	96.0	MRPW	34.646747	-117.227055	Bell Mountain Wash	1.00			
D-2-365	R6	RIVERINE	0.003347	145.8	MRPW	34.646923	-117.226502	Bell Mountain Wash	1.00			
D-2-366	R6	RIVERINE	0.005060	220.4	MRPW	34.646417	-117.226400	Bell Mountain Wash	1.00			
D-2-367	R6	RIVERINE	0.009247	402.8	MRPW	34.644844	-117.226565	Bell Mountain Wash	1.00	2D209VS		
D-2-368	R6	RIVERINE	0.017775	774.3	MRPW	34.645185	-117.226507	Bell Mountain Wash	1.00	2D211VS		
D-2-369	R6	RIVERINE	0.015773	381.7	MRPW	34.644300	-117.230906	Bell Mountain Wash	1.80			
D-2-370	R6	RIVERINE	0.027831	673.5	MRPW	34.644503	-117.229948	Bell Mountain Wash	1.80			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-2-371	R6	RIVERINE	0.003402	148.2	MRPW	34.644010	-117.229670	Bell Mountain Wash	1.00			
D-2-372	R6	RIVERINE	0.004929	214.7	MRPW	34.644926	-117.230406	Bell Mountain Wash	1.00			
D-2-373	R6	RIVERINE	0.012179	530.5	MRPW	34.644870	-117.230025	Bell Mountain Wash	1.00			
D-2-374	R6	RIVERINE	0.002348	102.3	MRPW	34.643965	-117.228730	Bell Mountain Wash	1.00			
D-2-375	R6	RIVERINE	0.013623	593.4	MRPW	34.643801	-117.227781	Bell Mountain Wash	1.00			
D-2-376	R6	RIVERINE	0.004687	408.3	MRPW	34.643844	-117.227083	Bell Mountain Wash	0.50	2D201VS		
D-2-377	R6	RIVERINE	0.010893	474.5	MRPW	34.644111	-117.228619	Bell Mountain Wash	1.00			
D-2-378	R6	RIVERINE	0.003092	134.7	MRPW	34.644367	-117.228950	Bell Mountain Wash	1.00			
D-2-379	R6	RIVERINE	0.005248	228.6	MRPW	34.644191	-117.228922	Bell Mountain Wash	1.00			
D-2-380	R6	RIVERINE	0.003310	288.4	MRPW	34.643250	-117.226429	Bell Mountain Wash	0.50	2D200VS		
D-2-381	R6	RIVERINE	0.007084	308.6	MRPW	34.643058	-117.226080	Bell Mountain Wash	1.00			
D-2-382	R6	RIVERINE	0.007239	630.7	MRPW	34.643399	-117.226432	Bell Mountain Wash	0.50			
D-2-383	R6	RIVERINE	0.060692	1762.5	MRPW	34.645926	-117.228047	Bell Mountain Wash	1.50	2D212VS		
D-2-384	R6	RIVERINE	0.001961	85.4	MRPW	34.646331	-117.229542	Bell Mountain Wash	1.00			
D-2-385	R6	RIVERINE	0.003095	134.8	MRPW	34.646147	-117.229388	Bell Mountain Wash	1.00			
D-2-386	R6	RIVERINE	0.004240	184.7	MRPW	34.646018	-117.229361	Bell Mountain Wash	1.00			
D-2-387	R6	RIVERINE	0.004977	216.8	MRPW	34.645776	-117.228208	Bell Mountain Wash	1.00			
D-2-388	R6	RIVERINE	0.020955	912.8	MRPW	34.646898	-117.228247	Bell Mountain Wash	1.00			
D-2-389	R6	RIVERINE	0.006327	275.6	MRPW	34.647244	-117.229506	Bell Mountain Wash	1.00			
D-2-390	R6	RIVERINE	0.018356	799.6	MRPW	34.646567	-117.228615	Bell Mountain Wash	1.00			
D-2-391	R6	RIVERINE	0.011724	510.7	MRPW	34.644592	-117.228168	Bell Mountain Wash	1.00			
D-2-392	R6	RIVERINE	0.002927	127.5	MRPW	34.645494	-117.231540	Bell Mountain Wash	1.00			
D-2-393	R6	RIVERINE	0.009844	428.8	MRPW	34.645805	-117.230583	Bell Mountain Wash	1.00			
D-2-394	R6	RIVERINE	0.008297	361.4	MRPW	34.624560	-117.237395	Bell Mountain Wash	1.00			
D-2-395	R6	RIVERINE	0.002854	124.3	MRPW	34.624552	-117.237897	Bell Mountain Wash	1.00			
D-2-397	R6	RIVERINE	0.007002	305.0	MRPW	34.639715	-117.227062	Bell Mountain Wash	1.00	2D167VS		
D-2-398	R6	RIVERINE	0.004415	192.3	MRPW	34.641049	-117.223911	Bell Mountain Wash	1.00	2D186VS		
D-2-399	R6	RIVERINE	0.027867	1618.5	MRPW	34.641162	-117.226908	Bell Mountain Wash	0.75	2D181VS		
D-2-400	R6	RIVERINE	0.000746	32.5	MRPW	34.635824	-117.233880	Bell Mountain Wash	1.00			
D-2-401	R6	RIVERINE	0.021662	943.6	MRPW	34.635259	-117.230426	Bell Mountain Wash	1.00			
D-2-402	R6	RIVERINE	0.003703	161.3	MRPW	34.635121	-117.226787	Bell Mountain Wash	1.00			
D-2-403	R6	RIVERINE	0.008871	386.4	MRPW	34.635703	-117.226644	Bell Mountain Wash	1.00	2D127VS		
D-2-404	R6	RIVERINE	0.010932	476.2	MRPW	34.642051	-117.229300	Bell Mountain Wash	1.00			
D-2-405	R6	RIVERINE	0.012367	538.7	MRPW	34.640359	-117.233508	Bell Mountain Wash	1.00			
D-2-406	R6	RIVERINE	0.004966	216.3	MRPW	34.635522	-117.234580	Bell Mountain Wash	1.00			
D-2-407	R6	RIVERINE	0.009511	414.3	MRPW	34.635612	-117.234902	Bell Mountain Wash	1.00			
D-2-408	R6	RIVERINE	0.013274	578.2	MRPW	34.623923	-117.237671	Bell Mountain Wash	1.00			
D-2-409	R6	RIVERINE	0.004167	181.5	MRPW	34.624472	-117.237862	Bell Mountain Wash	1.00			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-2-410	R6	RIVERINE	0.007137	310.9	MRPW	34.624495	-117.237574	Bell Mountain Wash	1.00	
D-2-411	R6	RIVERINE	0.000404	17.6	MRPW	34.641727	-117.234341	Bell Mountain Wash	1.00	
D-2-412	R6	RIVERINE	0.004789	208.6	MRPW	34.635608	-117.228411	Bell Mountain Wash	1.00	
D-2-413	R6	RIVERINE	0.000464	20.2	MRPW	34.647304	-117.229777	Bell Mountain Wash	1.00	
D-2-414	R6	RIVERINE	0.004819	209.9	MRPW	34.649310	-117.225152	Bell Mountain Wash	1.00	
D-2-415	R6	RIVERINE	0.018359	1599.4	MRPW	34.622177	-117.236794	Bell Mountain Wash	0.50	2D78VS
D-2-416	R6	RIVERINE	0.009854	858.5	MRPW	34.623306	-117.235527	Bell Mountain Wash	0.50	2D83VS
D-2-417	R6	RIVERINE	0.014346	624.9	MRPW	34.624070	-117.235315	Bell Mountain Wash	1.00	2D84VS
D-2-418	R6	RIVERINE	0.003949	172.0	MRPW	34.631002	-117.229723	Bell Mountain Wash	1.00	2D109VS
D-2-419	R6	RIVERINE	0.002353	102.5	MRPW	34.630831	-117.229598	Bell Mountain Wash	1.00	2D108VS
D-2-420	R6	RIVERINE	0.001915	83.4	MRPW	34.630505	-117.230219	Bell Mountain Wash	1.00	2MD42
D-2-422	R6	RIVERINE	0.003157	137.5	MRPW	34.631614	-117.229372	Bell Mountain Wash	1.00	
D-2-423	R6	RIVERINE	0.002560	111.5	MRPW	34.631556	-117.229431	Bell Mountain Wash	1.00	
D-2-424	R6	RIVERINE	0.001364	59.4	MRPW	34.632395	-117.228666	Bell Mountain Wash	1.00	
D-2-425	R6	RIVERINE	0.009052	394.3	MRPW	34.631534	-117.228855	Bell Mountain Wash	1.00	
D-2-426	R6	RIVERINE	0.001770	77.1	MRPW	34.631703	-117.229079	Bell Mountain Wash	1.00	
D-2-427	R6	RIVERINE	0.006414	279.4	MRPW	34.632024	-117.228681	Bell Mountain Wash	1.00	
D-2-428	R6	RIVERINE	0.004543	197.9	MRPW	34.631998	-117.228359	Bell Mountain Wash	1.00	2D113VS
D-2-429	R6	RIVERINE	0.002831	123.3	MRPW	34.632775	-117.227417	Bell Mountain Wash	1.00	
D-2-430	R6	RIVERINE	0.007727	336.6	MRPW	34.633985	-117.229595	Bell Mountain Wash	1.00	
D-2-431	R6	RIVERINE	0.005388	234.7	MRPW	34.634158	-117.229357	Bell Mountain Wash	1.00	
D-2-432	R6	RIVERINE	0.004580	199.5	MRPW	34.634168	-117.228787	Bell Mountain Wash	1.00	
D-2-433	R6	RIVERINE	0.008012	349.0	MRPW	34.633741	-117.228510	Bell Mountain Wash	1.00	
D-2-434	R6	RIVERINE	0.003930	171.2	MRPW	34.635208	-117.227122	Bell Mountain Wash	1.00	
D-2-435	R6	RIVERINE	0.005356	233.3	MRPW	34.634700	-117.226133	Bell Mountain Wash	1.00	
D-2-436	R6	RIVERINE	0.003641	158.6	MRPW	34.634962	-117.225918	Bell Mountain Wash	1.00	
D-2-437	R6	RIVERINE	0.009075	395.3	MRPW	34.635415	-117.228935	Bell Mountain Wash	1.00	
D-2-438	R6	RIVERINE	0.004417	192.4	MRPW	34.634867	-117.228426	Bell Mountain Wash	1.00	
D-2-439	R6	RIVERINE	0.063144	1833.7	MRPW	34.635801	-117.228399	Bell Mountain Wash	1.50	2D124VS
D-2-440	R6	RIVERINE	0.006191	269.7	MRPW	34.636070	-117.227049	Bell Mountain Wash	1.00	
D-2-441	R6	RIVERINE	0.009364	407.9	MRPW	34.643807	-117.226187	Bell Mountain Wash	1.00	2D204VS
D-2-442	R6	RIVERINE	0.000342	14.9	MRPW	34.623237	-117.235528	Bell Mountain Wash	1.00	
D-2-443	R6	RIVERINE	0.000875	38.1	MRPW	34.639609	-117.225980	Bell Mountain Wash	1.00	
D-2-445	R6	RIVERINE	0.000792	34.5	MRPW	34.642118	-117.224232	Bell Mountain Wash	1.00	
D-2-539	R6	RIVERINE	0.004692	204.4	MRPW	34.643289	-117.226613	Bell Mountain Wash	1.00	2D199VS
D-2-540	R6	RIVERINE	0.003657	318.6	MRPW	34.643255	-117.226776	Bell Mountain Wash	0.50	2D198VS
D-2-541	R6	RIVERINE	0.000755	65.8	MRPW	34.643561	-117.226706	Bell Mountain Wash	0.50	2D202VS
D-2-542	R6	RIVERINE	0.000697	60.7	MRPW	34.643032	-117.226788	Bell Mountain Wash	0.50	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-2-543	R6	RIVERINE	0.005090	221.7	MRPW	34.642889	-117.226593	Bell Mountain Wash	1.00	2D196VS
D-2-544	R6	RIVERINE	0.014050	408.0	MRPW	34.646043	-117.226634	Bell Mountain Wash	1.50	2D213VS
D-2-545	R6	RIVERINE	0.024256	176.1	MRPW	34.648488	-117.228114	Bell Mountain Wash	6.00	2D223VS
D-2-546	R6	RIVERINE	0.001118	97.4	MRPW	34.649110	-117.228110	Bell Mountain Wash	0.50	2D228VS
D-2-24	R6	RIVERINE	0.011341	494.0	MRPW	34.648131	-117.221574	Bell Mountain Wash	1.00	2MD4
D-2-548	R6	RIVERINE	0.005980	260.5	MRPW	34.648440	-117.221684	Bell Mountain Wash	1.00	2D225VS
D-2-549	R6	RIVERINE	0.003409	148.5	MRPW	34.648634	-117.221669	Bell Mountain Wash	1.00	2D226VS
D-2-550	R6	RIVERINE	0.006483	141.2	MRPW	34.658366	-117.213499	Bell Mountain Wash	2.00	
D-2-551	R6	RIVERINE	0.003155	274.9	MRPW	34.640838	-117.224476	Bell Mountain Wash	0.50	2D185VS
D-2-552	R6	RIVERINE	0.000629	54.8	MRPW	34.639859	-117.225105	Bell Mountain Wash	0.50	2D171VS
D-2-553	R6	RIVERINE	0.007820	681.3	MRPW	34.639247	-117.226936	Bell Mountain Wash	0.50	2D161VS
D-2-554	R6	RIVERINE	0.003875	168.8	MRPW	34.638417	-117.226884	Bell Mountain Wash	1.00	2D155VS
D-2-555	R6	RIVERINE	0.003113	135.6	MRPW	34.638200	-117.227044	Bell Mountain Wash	1.00	2D151VS
D-2-556	R6	RIVERINE	0.014417	628.0	MRPW	34.637756	-117.231282	Bell Mountain Wash	1.00	2D145VS
D-2-557	R6	RIVERINE	0.001885	164.2	MRPW	34.637864	-117.231033	Bell Mountain Wash	0.50	2D146VS
D-2-558	R6	RIVERINE	0.010051	437.8	MRPW	34.637322	-117.231468	Bell Mountain Wash	1.00	2D142VS
D-2-559	R6	RIVERINE	0.002723	118.6	MRPW	34.637497	-117.232007	Bell Mountain Wash	1.00	
D-2-560	R6	RIVERINE	0.014575	634.9	MRPW	34.637483	-117.233303	Bell Mountain Wash	1.00	2D139VS
D-2-561	R6	RIVERINE	0.008588	374.1	MRPW	34.637762	-117.233085	Bell Mountain Wash	1.00	
D-2-562	R6	RIVERINE	0.003737	81.4	MRPW	34.636301	-117.229957	Bell Mountain Wash	2.00	2D134VS
D-2-563	R6	RIVERINE	0.001390	121.1	MRPW	34.635953	-117.227752	Bell Mountain Wash	0.50	2D130VS
D-2-564	R6	RIVERINE	0.001234	107.5	MRPW	34.635740	-117.227027	Bell Mountain Wash	0.50	2D128VS
D-2-565	R6	RIVERINE	0.006577	286.5	MRPW	34.634605	-117.226412	Bell Mountain Wash	1.00	2D122VS
D-2-566	R6	RIVERINE	0.005934	258.5	MRPW	34.634327	-117.226995	Bell Mountain Wash	1.00	2D119VS
D-2-567	R6	RIVERINE	0.003112	271.1	MRPW	34.634451	-117.227321	Bell Mountain Wash	0.50	2D118VS
D-2-568	R6	RIVERINE	0.000948	41.3	MRPW	34.631634	-117.228934	Bell Mountain Wash	1.00	2D111VS
D-2-569	R6	RIVERINE	0.005177	225.5	MRPW	34.630370	-117.230032	Bell Mountain Wash	1.00	2D106VS
D-2-570	R6	RIVERINE	0.002146	93.5	MRPW	34.628375	-117.232000	Bell Mountain Wash	1.00	2D103VS
D-2-74A	R6	RIVERINE	0.058873	351.3	MRPW	34.627690	-117.231540	Bell Mountain Wash	7.30	2MD47VS
D-2-572	R6	RIVERINE	0.004784	104.2	MRPW	34.626876	-117.233605	Bell Mountain Wash	2.00	2D97VS
D-2-573	R6	RIVERINE	0.002048	89.2	MRPW	34.626688	-117.233995	Bell Mountain Wash	1.00	2D96VS
D-2-574	R6	RIVERINE	0.004683	68.0	MRPW	34.626577	-117.234239	Bell Mountain Wash	3.00	2MD57VS
D-2-575	R6	RIVERINE	0.003017	131.4	MRPW	34.626064	-117.234582	Bell Mountain Wash	1.00	2D93VS
D-2-576	R6	RIVERINE	0.002911	126.8	MRPW	34.626053	-117.234677	Bell Mountain Wash	1.00	2D92VS
D-2-577	R6	RIVERINE	0.006676	290.8	MRPW	34.626048	-117.234961	Bell Mountain Wash	1.00	2D91VS
D-2-578	R6	RIVERINE	0.002307	100.5	MRPW	34.625002	-117.235119	Bell Mountain Wash	1.00	2D89VS
D-2-579	R6	RIVERINE	0.004656	135.2	MRPW	34.624915	-117.235294	Bell Mountain Wash	1.50	2D88VS
D-2-580	R6	RIVERINE	0.005368	467.7	MRPW	34.624196	-117.235252	Bell Mountain Wash	0.50	2D85VS

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-2-581	R6	RIVERINE	0.004716	410.9	MRPW	34.623437	-117.236040	Bell Mountain Wash	0.50	2D82VS		
D-2-582	R6	RIVERINE	0.010002	435.7	MRPW	34.623180	-117.236027	Bell Mountain Wash	1.00	2D81VS		
D-2-583	R6	RIVERINE	0.024762	719.1	MRPW	34.617152	-117.240228	Bell Mountain Wash	1.50	2D64VS		
D-2-584	R6	RIVERINE	0.003781	164.7	MRPW	34.618210	-117.238993	Bell Mountain Wash	1.00	2D65VS		
D-2-585	R6	RIVERINE	0.011763	341.6	MRPW	34.620288	-117.237516	Bell Mountain Wash	1.50	2D70VS		
D-2-586	R6	RIVERINE	0.003836	167.1	MRPW	34.621543	-117.237227	Bell Mountain Wash	1.00	2D76VS		
D-2-587	R6	RIVERINE	0.000984	85.7	MRPW	34.621324	-117.237267	Bell Mountain Wash	0.50	2D75VS		
D-2-588	R6	RIVERINE	0.005000	435.6	MRPW	34.621489	-117.237579	Bell Mountain Wash	0.50	2D74VS		
D-2-589	R6	RIVERINE	0.005079	442.5	MRPW	34.620885	-117.237002	Bell Mountain Wash	0.50	2D73VS		
D-2-590	R6	RIVERINE	0.015735	685.4	MRPW	34.621100	-117.237464	Bell Mountain Wash	1.00	2D72VS		
D-2-591	R6	RIVERINE	0.016290	709.6	MRPW	34.620837	-117.237637	Bell Mountain Wash	1.00	2D71VS		
D-2-592	R6	RIVERINE	0.016908	736.5	MRPW	34.640749	-117.228451	Bell Mountain Wash	1.00	2D183VS		
D-2-593	R6	RIVERINE	0.003118	135.8	MRPW	34.640380	-117.230692	Bell Mountain Wash	1.00	2D179VS		
D-2-594	R6	RIVERINE	0.004931	214.8	MRPW	34.638224	-117.233598	Bell Mountain Wash	1.00	2D154VS		
D-2-287	R6	RIVERINE	0.020748	903.8	MRPW	34.639249	-117.232752	Bell Mountain Wash	1.00	2D164VS		
D-2-444	R6	RIVERINE	0.021994	638.7	MRPW	34.639687	-117.232721	Bell Mountain Wash	1.50	2D166VS		
D-2-597	R6	RIVERINE	0.000513	44.7	MRPW	34.639832	-117.232796	Bell Mountain Wash	0.50	2D169VS		
D-2-598	R6	RIVERINE	0.004853	211.4	MRPW	34.639878	-117.232863	Bell Mountain Wash	1.00	2D168VS		
D-2-599	R6	RIVERINE	0.009360	407.7	MRPW	34.640158	-117.231903	Bell Mountain Wash	1.00	2D175VS		
D-2-600	R6	RIVERINE	0.003760	163.8	MRPW	34.640470	-117.231108	Bell Mountain Wash	1.00	2D180VS		
D-2-1	R6	RIVERINE	0.001345	58.6	MRPW	34.665882	-117.211505	Bell Mountain Wash	1.00			
D-2-601	R6	RIVERINE	0.015432	672.2	MRPW	34.624013	-117.237395	Bell Mountain Wash	1.00			
D-3-4	R6	RIVERINE	0.010093	293.1	MRPW	34.739573	-117.179900	Brisbane Valley-Wild Wash	1.50			
D-3-7	R6	RIVERINE	0.170586	422.2	MRPW	34.737032	-117.182009	Brisbane Valley-Wild Wash	17.60			
D-3-8	R6	RIVERINE	0.088929	220.1	MRPW	34.736263	-117.182910	Brisbane Valley-Wild Wash	17.60			
D-3-16	R6	RIVERINE	0.008688	252.3	MRPW	34.732089	-117.186645	Brisbane Valley-Wild Wash	1.50			
D-3-21	R6	RIVERINE	0.009645	280.1	MRPW	34.730043	-117.188622	Brisbane Valley-Wild Wash	1.50			
D-3-22	R6	RIVERINE	0.007366	213.9	MRPW	34.729562	-117.189026	Brisbane Valley-Wild Wash	1.50			
D-3-25	R6	RIVERINE	0.009773	283.8	MRPW	34.728115	-117.190291	Brisbane Valley-Wild Wash	1.50			
D-3-28	R6	RIVERINE	0.008395	243.8	MRPW	34.724779	-117.193302	Brisbane Valley-Wild Wash	1.50			
D-3-29	R6	RIVERINE	0.006811	197.8	MRPW	34.724626	-117.193451	Brisbane Valley-Wild Wash	1.50			
D-3-30	R6	RIVERINE	0.002273	66.0	MRPW	34.724778	-117.193602	Brisbane Valley-Wild Wash	1.50			
D-3-33	R6	RIVERINE	0.008048	233.7	MRPW	34.721925	-117.195278	Brisbane Valley-Wild Wash	1.50			
D-3-38	R6	RIVERINE	0.008426	215.9	MRPW	34.719873	-117.196467	Brisbane Valley-Wild Wash	1.70	3D1		
D-3-39	R6	RIVERINE	0.005189	205.5	MRPW	34.719389	-117.196758	Brisbane Valley-Wild Wash	1.10	3D2		
D-3-43	R6	RIVERINE	0.007555	219.4	MRPW	34.717529	-117.197708	Brisbane Valley-Wild Wash	1.50			
D-3-44	R6	RIVERINE	0.011639	202.8	MRPW	34.717341	-117.197825	Brisbane Valley-Wild Wash	2.50	3D3		
D-3-47	R6	RIVERINE	0.003388	210.8	MRPW	34.716207	-117.198447	Brisbane Valley-Wild Wash	0.70	3D4		

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-3-48	R6	RIVERINE	0.006412	186.2	MRPW	34.715526	-117.198820	Brisbane Valley-Wild Wash	1.50	
D-3-49	R6	RIVERINE	0.007314	212.4	MRPW	34.714549	-117.199315	Brisbane Valley-Wild Wash	1.50	
D-3-50	R6	RIVERINE	0.002414	70.1	MRPW	34.714594	-117.199532	Brisbane Valley-Wild Wash	1.50	
D-3-54	R6	RIVERINE	0.073980	183.1	MRPW	34.710647	-117.201399	Brisbane Valley-Wild Wash	17.60	
D-3-55	R6	RIVERINE	0.028566	200.7	MRPW	34.710573	-117.201436	Brisbane Valley-Wild Wash	6.20	
D-3-56	R6	RIVERINE	0.066061	163.5	MRPW	34.710489	-117.201552	Brisbane Valley-Wild Wash	17.60	
D-3-57	R6	RIVERINE	0.008454	245.5	MRPW	34.707279	-117.203096	Brisbane Valley-Wild Wash	1.50	
D-3-69	R6	RIVERINE	0.009483	275.4	MRPW	34.722026	-117.195179	Brisbane Valley-Wild Wash	1.50	
D-3-75	R6	RIVERINE	0.004559	132.4	MRPW	34.707497	-117.203198	Brisbane Valley-Wild Wash	1.50	
D-3-77	R6	RIVERINE	0.004298	124.8	MRPW	34.704090	-117.204975	Brisbane Valley-Wild Wash	1.50	
D-3-78	R6	RIVERINE	0.004780	138.8	MRPW	34.704050	-117.205014	Brisbane Valley-Wild Wash	1.50	
D-3-79	R6	RIVERINE	0.207645	301.5	MRPW	34.698996	-117.207484	Brisbane Valley-Wild Wash	30.00	3MD9
D-3-80	R6	RIVERINE	0.025458	739.3	MRPW	34.693115	-117.211072	Brisbane Valley-Wild Wash	1.50	
D-3-81	R6	RIVERINE	0.010165	295.2	MRPW	34.691344	-117.211965	Brisbane Valley-Wild Wash	1.50	
D-3-82	R6	RIVERINE	0.064432	1871.1	MRPW	34.692402	-117.211145	Brisbane Valley-Wild Wash	1.50	
D-3-83	R6	RIVERINE	0.011718	340.3	MRPW	34.689904	-117.212495	Brisbane Valley-Wild Wash	1.50	
D-3-84	R6	RIVERINE	0.026357	765.4	MRPW	34.687760	-117.213373	Brisbane Valley-Wild Wash	1.50	
D-3-85	R6	RIVERINE	0.013402	389.2	MRPW	34.686713	-117.213659	Brisbane Valley-Wild Wash	1.50	
D-3-86	R6	RIVERINE	0.009222	267.8	MRPW	34.686211	-117.213662	Brisbane Valley-Wild Wash	1.50	
D-3-87	R6	RIVERINE	0.007528	218.6	MRPW	34.687422	-117.213701	Brisbane Valley-Wild Wash	1.50	
D-3-88	R6	RIVERINE	0.038488	1117.7	MRPW	34.686338	-117.213359	Brisbane Valley-Wild Wash	1.50	3D10
D-3-89	R6	RIVERINE	0.005658	164.3	MRPW	34.684659	-117.213996	Brisbane Valley-Wild Wash	1.50	
D-3-90	R6	RIVERINE	0.008313	241.4	MRPW	34.684321	-117.214052	Brisbane Valley-Wild Wash	1.50	
D-3-91	R6	RIVERINE	0.017200	499.5	MRPW	34.682328	-117.213626	Brisbane Valley-Wild Wash	1.50	
D-3-92	R6	RIVERINE	0.013674	397.1	MRPW	34.677614	-117.212414	Brisbane Valley-Wild Wash	1.50	
D-3-93	R6	RIVERINE	0.008347	242.4	MRPW	34.676289	-117.212124	Brisbane Valley-Wild Wash	1.50	
D-3-95	R6	RIVERINE	0.003819	110.9	MRPW	34.674151	-117.211734	Brisbane Valley-Wild Wash	1.50	
D-3-96	R6	RIVERINE	0.008953	260.0	MRPW	34.673728	-117.211350	Brisbane Valley-Wild Wash	1.50	
D-3-97	R6	RIVERINE	0.005289	153.6	MRPW	34.673395	-117.211126	Brisbane Valley-Wild Wash	1.50	
D-3-102	R6	RIVERINE	0.007972	231.5	MRPW	34.669495	-117.210645	Brisbane Valley-Wild Wash	1.50	
D-3-103	R6	RIVERINE	0.007652	222.2	MRPW	34.668278	-117.210615	Brisbane Valley-Wild Wash	1.50	
D-3-104	R6	RIVERINE	0.007383	214.4	MRPW	34.668207	-117.210791	Brisbane Valley-Wild Wash	1.50	
D-3-105	R6	RIVERINE	0.011646	338.2	MRPW	34.667746	-117.210845	Brisbane Valley-Wild Wash	1.50	
D-3-106	R6	RIVERINE	0.006787	197.1	MRPW	34.666425	-117.211138	Brisbane Valley-Wild Wash	1.50	
D-3-107	R6	RIVERINE	0.005320	154.5	MRPW	34.667115	-117.210764	Brisbane Valley-Wild Wash	1.50	
D-3-108	R6	RIVERINE	0.038303	177.5	MRPW	34.665876	-117.211137	Brisbane Valley-Wild Wash	9.40	
D-3-110	R6	RIVERINE	0.002407	69.9	MRPW	34.686091	-117.213507	Brisbane Valley-Wild Wash	1.50	
D-3-111	R6	RIVERINE	0.002287	66.4	MRPW	34.686262	-117.213491	Brisbane Valley-Wild Wash	1.50	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-3-112	R6	RIVERINE	0.003512	102.0	MRPW	34.689607	-117.212993	Brisbane Valley-Wild Wash	1.50	
D-3-116	R6	RIVERINE	0.006054	175.8	MRPW	34.736172	-117.183091	Brisbane Valley-Wild Wash	1.50	
D-3-117	R6	RIVERINE	0.004528	131.5	MRPW	34.736424	-117.182942	Brisbane Valley-Wild Wash	1.50	
D-3-119	R6	RIVERINE	0.008740	253.8	MRPW	34.734167	-117.184758	Brisbane Valley-Wild Wash	1.50	3D26
D-3-120	R6	RIVERINE	0.007063	205.1	MRPW	34.734321	-117.184759	Brisbane Valley-Wild Wash	1.50	
D-3-121	R6	RIVERINE	0.004576	132.9	MRPW	34.734221	-117.184735	Brisbane Valley-Wild Wash	1.50	
D-3-123	R6	RIVERINE	0.002276	66.1	MRPW	34.730007	-117.188926	Brisbane Valley-Wild Wash	1.50	
D-3-124	R6	RIVERINE	0.006594	191.5	MRPW	34.729984	-117.188498	Brisbane Valley-Wild Wash	1.50	
D-3-125	R6	RIVERINE	0.006760	196.3	MRPW	34.728324	-117.190269	Brisbane Valley-Wild Wash	1.50	
D-3-127	R6	RIVERINE	0.009132	221.0	MRPW	34.714685	-117.199229	Brisbane Valley-Wild Wash	1.80	3D5D
D-3-128	R6	RIVERINE	0.002378	148.0	MRPW	34.714743	-117.199334	Brisbane Valley-Wild Wash	0.70	
D-3-129	R6	RIVERINE	0.006253	181.6	MRPW	34.714654	-117.199338	Brisbane Valley-Wild Wash	1.50	
D-3-131	R6	RIVERINE	0.001684	48.9	MRPW	34.711964	-117.200323	Brisbane Valley-Wild Wash	1.50	
D-3-132	R6	RIVERINE	0.297020	330.9	MRPW	34.709283	-117.202162	Brisbane Valley-Wild Wash	39.10	3D5A
D-3-133	R6	RIVERINE	0.020779	80.1	MRPW	34.709275	-117.202035	Brisbane Valley-Wild Wash	11.30	
D-3-134	R6	RIVERINE	0.013048	50.3	MRPW	34.709339	-117.201953	Brisbane Valley-Wild Wash	11.30	3D5C
D-3-138	R6	RIVERINE	0.003295	95.7	MRPW	34.675643	-117.212145	Brisbane Valley-Wild Wash	1.50	
D-3-139	R6	RIVERINE	0.009242	268.4	MRPW	34.675717	-117.212092	Brisbane Valley-Wild Wash	1.50	
D-3-140	R6	RIVERINE	0.013361	388.0	MRPW	34.672782	-117.210917	Brisbane Valley-Wild Wash	1.50	
D-3-141	R6	RIVERINE	0.005510	160.0	MRPW	34.672543	-117.211161	Brisbane Valley-Wild Wash	1.50	
D-3-142	R6	RIVERINE	0.026742	776.6	MRPW	34.673511	-117.211105	Brisbane Valley-Wild Wash	1.50	
D-3-143	R6	RIVERINE	0.007621	221.3	MRPW	34.666142	-117.211164	Brisbane Valley-Wild Wash	1.50	
D-3-144	R6	RIVERINE	0.792011	460.0	MRPW	34.683896	-117.213572	Brisbane Valley-Wild Wash	75.00	
D-3-145	R6	RIVERINE	0.011825	343.4	MRPW	34.692156	-117.211470	Brisbane Valley-Wild Wash	1.50	
D-3-150	R6	RIVERINE	0.004795	156.4	MRPW	34.712369	-117.200532	Brisbane Valley-Wild Wash	0.50	3D27
D-3-151	R6	RIVERINE	0.002067	180.1	MRPW	34.712681	-117.200412	Brisbane Valley-Wild Wash	0.50	3D28
D-4-1	R6	RIVERINE	0.049700	254.7	MRPW	34.883195	-117.063217	Town of Lenwood-Mojave River	8.50	4MD13
D-4-2	R6	RIVERINE	0.006381	163.5	MRPW	34.883182	-117.063356	Town of Lenwood-Mojave River	1.70	4D12
D-4-3	R6	RIVERINE	0.056309	204.4	MRPW	34.882341	-117.064442	Town of Lenwood-Mojave River	12.00	4MD11
D-4-4	R6	RIVERINE	0.012362	359.0	MRPW	34.880954	-117.065812	Town of Lenwood-Mojave River	1.50	
D-4-7	R6	RIVERINE	0.053180	279.1	MRPW	34.878662	-117.068594	Town of Lenwood-Mojave River	8.30	4MD3
D-4-9	R6	RIVERINE	0.076162	377.0	MRPW	34.875286	-117.072403	Town of Lenwood-Mojave River	8.80	4MD9
D-4-14	R6	RIVERINE	0.025078	273.1	MRPW	34.741830	-117.177727	Town of Lenwood-Mojave River	4.00	
D-4-18	R6	RIVERINE	0.009349	271.5	MRPW	34.743430	-117.176331	Town of Lenwood-Mojave River	1.50	
D-4-20	R6	RIVERINE	0.011006	319.6	MRPW	34.873427	-117.075061	Town of Lenwood-Mojave River	1.50	
D-4-21	R6	RIVERINE	0.007270	316.7	MRPW	34.882737	-117.063889	Town of Lenwood-Mojave River	1.00	4D14
D-4-22	R6	RIVERINE	0.014334	156.1	MRPW	34.881873	-117.064558	Town of Lenwood-Mojave River	4.00	4MD15
D-4-23	R6	RIVERINE	0.005172	281.6	MRPW	34.879106	-117.068010	Town of Lenwood-Mojave River	0.80	4D1

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-4-24	R6	RIVERINE	0.034703	308.5	MRPW	34.878995	-117.068159	Town of Lenwood-Mojave River	4.90	4MD2
D-4-25	R6	RIVERINE	0.013234	339.1	MRPW	34.878368	-117.068900	Town of Lenwood-Mojave River	1.70	4D4
D-4-26	R6	RIVERINE	0.032979	624.6	MRPW	34.877396	-117.069451	Town of Lenwood-Mojave River	2.30	4D6
D-4-27	R6	RIVERINE	0.001798	71.2	MRPW	34.877436	-117.069553	Town of Lenwood-Mojave River	1.10	4D5
D-4-28	R6	RIVERINE	0.212227	287.1	MRPW	34.875914	-117.071924	Town of Lenwood-Mojave River	32.20	4MD7
D-4-29	R6	RIVERINE	0.071855	250.4	MRPW	34.868987	-117.079639	Town of Lenwood-Mojave River	12.50	
D-4-31	R6	RIVERINE	0.011964	274.3	MRPW	34.868355	-117.079914	Town of Lenwood-Mojave River	1.90	4D10
D-5-3	R6	RIVERINE	0.024809	831.3	MRPW	34.806845	-117.101743	Town of Johnstons Corner	1.30	
D-5-8	R6	RIVERINE	0.006396	253.3	MRPW	34.801636	-117.107601	Town of Johnstons Corner	1.10	5D3
D-5-11	R6	RIVERINE	0.006639	241.0	MRPW	34.800786	-117.108659	Town of Johnstons Corner	1.20	5D4
D-5-13	R6	RIVERINE	0.007142	239.3	MRPW	34.800075	-117.109550	Town of Johnstons Corner	1.30	
D-5-15	R6	RIVERINE	0.007724	258.8	MRPW	34.798254	-117.111776	Town of Johnstons Corner	1.30	
D-5-18	R6	RIVERINE	0.006581	220.5	MRPW	34.795877	-117.114797	Town of Johnstons Corner	1.30	
D-5-22	R6	RIVERINE	0.006276	210.3	MRPW	34.795184	-117.115701	Town of Johnstons Corner	1.30	
D-5-34	R6	RIVERINE	0.006181	207.1	MRPW	34.793550	-117.117709	Town of Johnstons Corner	1.30	
D-5-36	R6	RIVERINE	0.008849	296.5	MRPW	34.792888	-117.118420	Town of Johnstons Corner	1.30	5D5A
D-5-38	R6	RIVERINE	0.007022	235.3	MRPW	34.791988	-117.119612	Town of Johnstons Corner	1.30	
D-5-45	R6	RIVERINE	0.007291	244.3	MRPW	34.791189	-117.120588	Town of Johnstons Corner	1.30	
D-5-48	R6	RIVERINE	0.002764	92.6	MRPW	34.790496	-117.121789	Town of Johnstons Corner	1.30	
D-5-51	R6	RIVERINE	0.005879	256.1	MRPW	34.789816	-117.122284	Town of Johnstons Corner	1.00	5D6
D-5-53	R6	RIVERINE	0.006879	230.5	MRPW	34.788778	-117.123629	Town of Johnstons Corner	1.30	
D-5-54	R6	RIVERINE	0.007237	242.5	MRPW	34.788018	-117.124521	Town of Johnstons Corner	1.30	
D-5-57	R6	RIVERINE	0.010281	248.8	MRPW	34.786227	-117.126791	Town of Johnstons Corner	1.80	5D7
D-5-66	R6	RIVERINE	0.007371	247.0	MRPW	34.784502	-117.128837	Town of Johnstons Corner	1.30	
D-5-69	R6	RIVERINE	0.008824	320.3	MRPW	34.783321	-117.130240	Town of Johnstons Corner	1.20	5D8
D-5-72	R6	RIVERINE	0.008037	269.3	MRPW	34.782479	-117.131393	Town of Johnstons Corner	1.30	
D-5-76	R6	RIVERINE	0.009007	301.8	MRPW	34.781764	-117.132306	Town of Johnstons Corner	1.30	
D-5-77	R6	RIVERINE	0.008828	295.8	MRPW	34.780919	-117.133275	Town of Johnstons Corner	1.30	
D-5-79	R6	RIVERINE	0.008258	276.7	MRPW	34.779343	-117.135225	Town of Johnstons Corner	1.30	
D-5-81	R6	RIVERINE	0.007977	267.3	MRPW	34.778138	-117.136661	Town of Johnstons Corner	1.30	
D-5-83	R6	RIVERINE	0.004432	148.5	MRPW	34.774432	-117.141591	Town of Johnstons Corner	1.30	
D-5-84	R6	RIVERINE	0.007127	238.8	MRPW	34.774400	-117.141420	Town of Johnstons Corner	1.30	
D-5-89	R6	RIVERINE	0.006769	226.8	MRPW	34.773132	-117.143029	Town of Johnstons Corner	1.30	
D-5-90	R6	RIVERINE	0.008252	276.5	MRPW	34.772169	-117.144123	Town of Johnstons Corner	1.30	
D-5-91	R6	RIVERINE	0.007762	260.1	MRPW	34.770834	-117.145855	Town of Johnstons Corner	1.30	
D-5-94	R6	RIVERINE	0.005924	198.5	MRPW	34.768412	-117.148947	Town of Johnstons Corner	1.30	
D-5-95	R6	RIVERINE	0.008124	272.2	MRPW	34.768980	-117.148245	Town of Johnstons Corner	1.30	
D-5-96	R6	RIVERINE	0.012749	427.2	MRPW	34.767857	-117.149660	Town of Johnstons Corner	1.30	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-5-97	R6	RIVERINE	0.007186	240.8	MRPW	34.767600	-117.150069	Town of Johnstons Corner	1.30	
D-5-99	R6	RIVERINE	0.010924	432.6	MRPW	34.764776	-117.153288	Town of Johnstons Corner	1.10	5D9
D-5-101	R6	RIVERINE	0.011758	243.9	MRPW	34.762682	-117.155990	Town of Johnstons Corner	2.10	5D10
D-5-103	R6	RIVERINE	0.008132	272.5	MRPW	34.761834	-117.157100	Town of Johnstons Corner	1.30	
D-5-105	R6	RIVERINE	0.007497	251.2	MRPW	34.760003	-117.159221	Town of Johnstons Corner	1.30	
D-5-108	R6	RIVERINE	0.007160	239.9	MRPW	34.759159	-117.160379	Town of Johnstons Corner	1.30	
D-5-110	R6	RIVERINE	0.002164	72.5	MRPW	34.752788	-117.168162	Town of Johnstons Corner	1.30	
D-5-114	R6	RIVERINE	0.006876	230.4	MRPW	34.751092	-117.169455	Town of Johnstons Corner	1.30	
D-5-116	R6	RIVERINE	0.007055	236.4	MRPW	34.749847	-117.170592	Town of Johnstons Corner	1.30	
D-5-118	R6	RIVERINE	0.017856	598.3	MRPW	34.749352	-117.170827	Town of Johnstons Corner	1.30	
D-5-120	R6	RIVERINE	0.009326	312.5	MRPW	34.748546	-117.171717	Town of Johnstons Corner	1.30	
D-5-121	R6	RIVERINE	0.012250	266.8	MRPW	34.747993	-117.172162	Town of Johnstons Corner	2.00	
D-5-125	R6	RIVERINE	0.013605	395.1	MRPW	34.802774	-117.105912	Town of Johnstons Corner	1.50	5D1
D-5-126	R6	RIVERINE	0.005317	154.4	MRPW	34.802552	-117.106190	Town of Johnstons Corner	1.50	
D-5-127	R6	RIVERINE	0.005339	193.8	MRPW	34.802377	-117.106572	Town of Johnstons Corner	1.20	5D2
D-5-131	R6	RIVERINE	0.002593	86.9	MRPW	34.793700	-117.117829	Town of Johnstons Corner	1.30	
D-5-150	R6	RIVERINE	0.009141	306.3	MRPW	34.775356	-117.140186	Town of Johnstons Corner	1.30	
D-5-151	R6	RIVERINE	0.008879	297.5	MRPW	34.776119	-117.139284	Town of Johnstons Corner	1.30	
D-5-152	R6	RIVERINE	0.005891	197.4	MRPW	34.774271	-117.141715	Town of Johnstons Corner	1.30	
D-5-155	R6	RIVERINE	0.002355	85.5	MRPW	34.802729	-117.106625	Town of Johnstons Corner	1.20	
D-5-158	R6	RIVERINE	0.006724	225.3	MRPW	34.794308	-117.116742	Town of Johnstons Corner	1.30	
D-5-159	R6	RIVERINE	0.007034	235.7	MRPW	34.790381	-117.121617	Town of Johnstons Corner	1.30	
D-5-160	R6	RIVERINE	0.007586	254.2	MRPW	34.785584	-117.127557	Town of Johnstons Corner	1.30	
D-5-161	R6	RIVERINE	0.007073	237.0	MRPW	34.783746	-117.129817	Town of Johnstons Corner	1.30	
D-5-162	R6	RIVERINE	0.007834	262.5	MRPW	34.779948	-117.134570	Town of Johnstons Corner	1.30	
D-5-165	R6	RIVERINE	0.009242	366.0	MRPW	34.765068	-117.152908	Town of Johnstons Corner	1.10	
D-5-166	R6	RIVERINE	0.002671	89.5	MRPW	34.759295	-117.160504	Town of Johnstons Corner	1.30	
D-5-167	R6	RIVERINE	0.005276	176.8	MRPW	34.758395	-117.161436	Town of Johnstons Corner	1.30	
D-5-168	R6	RIVERINE	0.020088	673.1	MRPW	34.757746	-117.162096	Town of Johnstons Corner	1.30	
D-5-169	R6	RIVERINE	0.011290	378.3	MRPW	34.755992	-117.164255	Town of Johnstons Corner	1.30	
D-5-172	R6	RIVERINE	0.008726	292.4	MRPW	34.755220	-117.165186	Town of Johnstons Corner	1.30	
D-5-174	R6	RIVERINE	0.006730	225.5	MRPW	34.750983	-117.169505	Town of Johnstons Corner	1.30	
D-5-175	R6	RIVERINE	0.007348	246.2	MRPW	34.750895	-117.169641	Town of Johnstons Corner	1.30	
D-5-179	R6	RIVERINE	0.006208	208.0	MRPW	34.768596	-117.148755	Town of Johnstons Corner	1.30	
D-5-180	R6	RIVERINE	0.003154	105.7	MRPW	34.771911	-117.144226	Town of Johnstons Corner	1.30	
D-5-181	R6	RIVERINE	0.003235	108.4	MRPW	34.769992	-117.146613	Town of Johnstons Corner	1.30	
D-5-182	R6	RIVERINE	0.002826	94.7	MRPW	34.775333	-117.140062	Town of Johnstons Corner	1.30	
D-5-183	R6	RIVERINE	0.007697	257.9	MRPW	34.799235	-117.110590	Town of Johnstons Corner	1.30	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point		
D-5-184	R6	RIVERINE	0.007622	255.4	MRPW	34.786727	-117.126136	Town of Johnstons Corner	1.30			
D-5-190	R6	RIVERINE	0.003577	155.8	MRPW	34.792522	-117.119073	Town of Johnstons Corner	1.00	5D11		
D-6-1	R6	RIVERINE	0.054806	277.6	MRPW	34.861020	-117.083709	180902081004	8.60	6MD2		
D-6-3	R6	RIVERINE	0.011630	298.0	MRPW	34.859062	-117.084216	180902081004	1.70			
D-6-4	R6	RIVERINE	0.049373	321.0	MRPW	34.857745	-117.084538	180902081004	6.70	6MD3		
D-6-8	R6	RIVERINE	0.018378	470.9	MRPW	34.841834	-117.089399	180902081004	1.70			
D-6-10	R6	RIVERINE	0.006361	163.0	MRPW	34.834595	-117.091353	180902081004	1.70			
D-6-12	R6	RIVERINE	0.006798	174.2	MRPW	34.833797	-117.091546	180902081004	1.70			
D-6-13	R6	RIVERINE	0.007169	183.7	MRPW	34.833653	-117.091566	180902081004	1.70			
D-6-14	R6	RIVERINE	0.008336	213.6	MRPW	34.832104	-117.092025	180902081004	1.70			
D-6-15	R6	RIVERINE	0.006869	176.0	MRPW	34.831968	-117.092025	180902081004	1.70			
D-6-16	R6	RIVERINE	0.002342	60.0	MRPW	34.832067	-117.091971	180902081004	1.70			
D-6-17	R6	RIVERINE	0.007091	181.7	MRPW	34.831916	-117.092014	180902081004	1.70			
D-6-18	R6	RIVERINE	0.004621	118.4	MRPW	34.831885	-117.091965	180902081004	1.70			
D-6-19	R6	RIVERINE	0.008484	217.4	MRPW	34.831719	-117.092187	180902081004	1.70			
D-6-20	R6	RIVERINE	0.008910	228.3	MRPW	34.831583	-117.092185	180902081004	1.70			
D-6-21	R6	RIVERINE	0.009023	231.2	MRPW	34.831509	-117.092216	180902081004	1.70			
D-6-22	R6	RIVERINE	0.002728	69.9	MRPW	34.831819	-117.092290	180902081004	1.70			
D-6-23	R6	RIVERINE	0.000937	24.0	MRPW	34.831846	-117.092313	180902081004	1.70			
D-6-25	R6	RIVERINE	0.010377	265.9	MRPW	34.859870	-117.083988	180902081004	1.70			
D-6-26	R6	RIVERINE	0.013025	515.8	MRPW	34.861470	-117.083442	180902081004	1.10	6D1		
D-6-27	R6	RIVERINE	0.010377	265.9	MRPW	34.860196	-117.083951	180902081004	1.70			
D-6-28	R6	RIVERINE	0.315806	305.7	MRPW	34.845398	-117.088078	180902081004	45.00	6D8		
D-6-29	R6	RIVERINE	0.020364	521.8	MRPW	34.839554	-117.089798	180902081004	1.70			
D-6-30	R6	RIVERINE	0.009163	234.8	MRPW	34.839749	-117.089978	180902081004	1.70			
D-6-31	R6	RIVERINE	0.007454	191.0	MRPW	34.839050	-117.090026	180902081004	1.70			
D-6-32	R6	RIVERINE	0.006318	161.9	MRPW	34.833375	-117.091663	180902081004	1.70			
D-6-33	R6	RIVERINE	0.003512	90.0	MRPW	34.831678	-117.092142	180902081004	1.70			
D-6-34	R6	RIVERINE	0.465441	13516.4	MRPW	34.833500	-117.091267	180902081004	1.50	6MD4		
D-6-36	R6	RIVERINE	0.037122	951.2	MRPW	34.823801	-117.094338	180902081004	1.70	6M6		
D-6-37	R6	RIVERINE	1.500620	242.1	MRPW	34.849755	-117.086833	180902081004	270.00	6M9		
D-7-1	R6	RIVERINE	0.015500	337.6	MRPW	34.904695	-116.940675	City of Barstow-Mojave River	2.00			
D-7-2	R6	RIVERINE	0.009977	217.3	MRPW	34.904797	-116.940186	City of Barstow-Mojave River	2.00			
D-7-4	R6	RIVERINE	0.010817	235.6	MRPW	34.904875	-116.941243	City of Barstow-Mojave River	2.00			
D-7-5	R6	RIVERINE	0.006970	151.8	MRPW	34.904870	-116.942343	City of Barstow-Mojave River	2.00			
D-7-6	R6	RIVERINE	0.005073	110.5	MRPW	34.905137	-116.942102	City of Barstow-Mojave River	2.00			
D-7-7	R6	RIVERINE	0.014054	306.1	MRPW	34.905006	-116.942555	City of Barstow-Mojave River	2.00			
D-7-8	R6	RIVERINE	0.036124	145.7	MRPW	34.905164	-116.942638	City of Barstow-Mojave River	10.80			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point
D-7-10	R6	RIVERINE	0.003792	82.6	MRPW	34.905054	-116.944497	City of Barstow-Mojave River	2.00	
D-7-12	R6	RIVERINE	0.006846	149.1	MRPW	34.905538	-116.944374	City of Barstow-Mojave River	2.00	
D-7-13	R6	RIVERINE	0.014227	281.7	MRPW	34.905347	-116.944759	City of Barstow-Mojave River	2.20	7D1
D-7-15	R6	RIVERINE	0.007089	154.4	MRPW	34.905445	-116.944934	City of Barstow-Mojave River	2.00	
D-7-17	R6	RIVERINE	0.009017	196.4	MRPW	34.905330	-116.945076	City of Barstow-Mojave River	2.00	
D-7-19	R6	RIVERINE	0.003788	82.5	MRPW	34.905745	-116.945786	City of Barstow-Mojave River	2.00	
D-7-20	R6	RIVERINE	0.000895	19.5	MRPW	34.905786	-116.945890	City of Barstow-Mojave River	2.00	
D-7-21	R6	RIVERINE	0.003315	72.2	MRPW	34.905453	-116.945852	City of Barstow-Mojave River	2.00	
D-7-23	R6	RIVERINE	0.006589	143.5	MRPW	34.905658	-116.946223	City of Barstow-Mojave River	2.00	
D-7-24	R6	RIVERINE	0.004151	90.4	MRPW	34.905547	-116.946575	City of Barstow-Mojave River	2.00	
D-7-25	R6	RIVERINE	0.002328	50.7	MRPW	34.905490	-116.946603	City of Barstow-Mojave River	2.00	
D-7-27	R6	RIVERINE	0.021364	465.3	MRPW	34.905465	-116.947446	City of Barstow-Mojave River	2.00	
D-7-28	R6	RIVERINE	0.004091	89.1	MRPW	34.905496	-116.947100	City of Barstow-Mojave River	2.00	
D-7-29	R6	RIVERINE	0.006465	140.8	MRPW	34.905606	-116.947110	City of Barstow-Mojave River	2.00	
D-7-30	R6	RIVERINE	0.003062	66.7	MRPW	34.905728	-116.947069	City of Barstow-Mojave River	2.00	
D-7-33	R6	RIVERINE	0.016612	361.8	MRPW	34.905966	-116.947654	City of Barstow-Mojave River	2.00	
D-7-34	R6	RIVERINE	0.209125	607.3	MRPW	34.905484	-116.946634	City of Barstow-Mojave River	15.00	
D-7-36	R6	RIVERINE	0.111952	478.1	MRPW	34.905921	-116.949530	City of Barstow-Mojave River	10.20	7MD2
D-7-39	R6	RIVERINE	0.012415	270.4	MRPW	34.906214	-116.950423	City of Barstow-Mojave River	2.00	
D-7-40	R6	RIVERINE	0.003072	66.9	MRPW	34.906028	-116.950116	City of Barstow-Mojave River	2.00	
D-7-41	R6	RIVERINE	0.005482	119.4	MRPW	34.906411	-116.950448	City of Barstow-Mojave River	2.00	
D-7-42	R6	RIVERINE	0.003347	72.9	MRPW	34.906354	-116.950087	City of Barstow-Mojave River	2.00	
D-7-47	R6	RIVERINE	0.015500	337.6	MRPW	34.908026	-116.959922	City of Barstow-Mojave River	2.00	
D-7-48	R6	RIVERINE	0.021529	468.9	MRPW	34.907711	-116.960267	City of Barstow-Mojave River	2.00	
D-7-49	R6	RIVERINE	0.006056	131.9	MRPW	34.907656	-116.959903	City of Barstow-Mojave River	2.00	
D-7-51	R6	RIVERINE	0.012309	268.1	MRPW	34.908156	-116.961466	City of Barstow-Mojave River	2.00	
D-7-52	R6	RIVERINE	0.004927	107.3	MRPW	34.908011	-116.961207	City of Barstow-Mojave River	2.00	
D-7-53	R6	RIVERINE	0.007764	169.1	MRPW	34.908024	-116.961451	City of Barstow-Mojave River	2.00	
D-7-54	R6	RIVERINE	0.022282	485.3	MRPW	34.907704	-116.961500	City of Barstow-Mojave River	2.00	
D-7-55	R6	RIVERINE	0.375248	1513.5	MRPW	34.908215	-116.963820	City of Barstow-Mojave River	10.80	
D-7-56	R6	RIVERINE	0.006708	146.1	MRPW	34.908373	-116.962156	City of Barstow-Mojave River	2.00	
D-7-58	R6	RIVERINE	0.034660	754.9	MRPW	34.908523	-116.964653	City of Barstow-Mojave River	2.00	
D-7-59	R6	RIVERINE	0.011630	253.3	MRPW	34.908799	-116.964455	City of Barstow-Mojave River	2.00	
D-7-64	R6	RIVERINE	0.292406	1117.3	MRPW	34.908874	-116.968268	City of Barstow-Mojave River	11.40	7M3
D-7-65	R6	RIVERINE	0.121668	464.9	MRPW	34.909006	-116.970601	City of Barstow-Mojave River	11.40	
D-7-66	R6	RIVERINE	0.068829	263.0	MRPW	34.908426	-116.973238	City of Barstow-Mojave River	11.40	
D-7-67	R6	RIVERINE	0.012585	274.1	MRPW	34.907958	-116.974972	City of Barstow-Mojave River	2.00	
D-7-68	R6	RIVERINE	0.013049	284.2	MRPW	34.907621	-116.975924	City of Barstow-Mojave River	2.00	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point		
D-7-70	R6	RIVERINE	0.009495	206.8	MRPW	34.907156	-116.977760	City of Barstow-Mojave River	2.00			
D-7-76	R6	RIVERINE	0.012983	314.2	MRPW	34.906622	-116.979061	City of Barstow-Mojave River	1.80	7D4		
D-7-79	R6	RIVERINE	0.014665	304.2	MRPW	34.906322	-116.980039	City of Barstow-Mojave River	2.10	7D6		
D-7-81	R6	RIVERINE	0.011689	363.7	MRPW	34.906142	-116.980493	City of Barstow-Mojave River	1.40	7D5		
D-7-83	R6	RIVERINE	0.024096	524.8	MRPW	34.905911	-116.981501	City of Barstow-Mojave River	2.00			
D-7-84	R6	RIVERINE	0.010386	226.2	MRPW	34.905839	-116.981214	City of Barstow-Mojave River	2.00			
D-7-85	R6	RIVERINE	0.003232	70.4	MRPW	34.905717	-116.981233	City of Barstow-Mojave River	2.00			
D-7-86	R6	RIVERINE	0.004320	94.1	MRPW	34.905816	-116.981055	City of Barstow-Mojave River	2.00			
D-7-87	R6	RIVERINE	0.002048	44.6	MRPW	34.905742	-116.981062	City of Barstow-Mojave River	2.00			
D-7-92	R6	RIVERINE	0.010822	235.7	MRPW	34.886734	-117.042530	City of Barstow-Mojave River	2.00			
D-7-96	R6	RIVERINE	0.023635	367.7	MRPW	34.886597	-117.033567	City of Barstow-Mojave River	2.80	7D7		
D-7-97	R6	RIVERINE	0.009215	200.7	MRPW	34.886697	-117.034137	City of Barstow-Mojave River	2.00	7D8		
D-7-98	R6	RIVERINE	0.010955	238.6	MRPW	34.886683	-117.035749	City of Barstow-Mojave River	2.00			
D-7-99	R6	RIVERINE	0.021873	476.4	MRPW	34.886481	-117.035478	City of Barstow-Mojave River	2.00			
D-7-100	R6	RIVERINE	0.010427	227.1	MRPW	34.886624	-117.037912	City of Barstow-Mojave River	2.00			
D-7-101	R6	RIVERINE	0.018928	329.8	MRPW	34.886634	-117.040059	City of Barstow-Mojave River	2.50	7D9		
D-7-102	R6	RIVERINE	0.014522	316.3	MRPW	34.886613	-117.043695	City of Barstow-Mojave River	2.00			
D-7-103	R6	RIVERINE	0.244261	532.0	MRPW	34.886430	-117.048763	City of Barstow-Mojave River	20.00			
D-7-104	R6	RIVERINE	0.061662	134.3	MRPW	34.886340	-117.048974	City of Barstow-Mojave River	20.00			
D-7-105	R6	RIVERINE	0.026699	232.6	MRPW	34.904980	-116.942030	City of Barstow-Mojave River	5.00			
D-7-106	R6	RIVERINE	6.407948	266.6	MRPW	34.896718	-116.994790	City of Barstow-Mojave River	1047.00			
D-7-107	R6	RIVERINE	0.000847	46.1	MRPW	34.885757	-117.052368	City of Barstow-Mojave River	0.80	7D10		
D-7-108	R6	RIVERINE	0.014412	313.9	MRPW	34.907886	-116.962334	City of Barstow-Mojave River	2.00			
D-8-30	R6	RIVERINE	0.005208	119.4	MRPW	34.914440	-116.803686	Odessa Canyon	1.90			
D-8-33	R6	RIVERINE	0.016623	381.1	MRPW	34.915090	-116.804039	Odessa Canyon	1.90			
D-8-65	R6	RIVERINE	0.012776	292.9	MRPW	34.914972	-116.805975	Odessa Canyon	1.90			
D-8-68	R6	RIVERINE	0.037511	408.5	MRPW	34.915205	-116.806339	Odessa Canyon	4.00			
D-8-69	R6	RIVERINE	0.034509	375.8	MRPW	34.915248	-116.806093	Odessa Canyon	4.00			
D-8-127	R6	RIVERINE	0.005513	126.4	MRPW	34.916089	-116.808738	Odessa Canyon	1.90			
D-8-129	R6	RIVERINE	0.004257	97.6	MRPW	34.916271	-116.809279	Odessa Canyon	1.90			
D-8-130	R6	RIVERINE	0.008719	199.9	MRPW	34.916203	-116.809605	Odessa Canyon	1.90			
D-8-131	R6	RIVERINE	0.005701	130.7	MRPW	34.915667	-116.809795	Odessa Canyon	1.90			
D-8-132	R6	RIVERINE	0.030248	439.2	MRPW	34.915797	-116.809386	Odessa Canyon	3.00			
D-8-133	R6	RIVERINE	0.006325	145.0	MRPW	34.916114	-116.809821	Odessa Canyon	1.90			
D-8-136	R6	RIVERINE	0.018740	272.1	MRPW	34.916279	-116.810332	Odessa Canyon	3.00			
D-8-137	R6	RIVERINE	0.005193	75.4	MRPW	34.916534	-116.810267	Odessa Canyon	3.00			
D-8-138	R6	RIVERINE	0.009008	130.8	MRPW	34.915704	-116.810402	Odessa Canyon	3.00			
D-8-139	R6	RIVERINE	0.009932	227.7	MRPW	34.916385	-116.810533	Odessa Canyon	1.90			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-140	R6	RIVERINE	0.025840	375.2	MRPW	34.916284	-116.810852	Odessa Canyon	3.00			
D-8-141	R6	RIVERINE	0.009243	211.9	MRPW	34.916465	-116.810830	Odessa Canyon	1.90			
D-8-142	R6	RIVERINE	0.016858	386.5	MRPW	34.916425	-116.811410	Odessa Canyon	1.90			
D-8-148	R6	RIVERINE	0.017661	404.9	MRPW	34.916434	-116.811737	Odessa Canyon	1.90			
D-8-154	R6	RIVERINE	0.018254	418.5	MRPW	34.916590	-116.812411	Odessa Canyon	1.90			
D-8-157	R6	RIVERINE	0.018760	430.1	MRPW	34.916672	-116.812792	Odessa Canyon	1.90			
D-8-158	R6	RIVERINE	0.018921	433.8	MRPW	34.916661	-116.812652	Odessa Canyon	1.90			
D-8-161	R6	RIVERINE	0.019074	437.3	MRPW	34.916799	-116.813240	Odessa Canyon	1.90			
D-8-174	R6	RIVERINE	0.019467	446.3	MRPW	34.916997	-116.813973	Odessa Canyon	1.90			
D-8-177	R6	RIVERINE	0.012222	280.2	MRPW	34.917229	-116.814124	Odessa Canyon	1.90			
D-8-185	R6	RIVERINE	0.018433	422.6	MRPW	34.917154	-116.814685	Odessa Canyon	1.90			
D-8-188	R6	RIVERINE	0.009448	216.6	MRPW	34.916985	-116.815126	Odessa Canyon	1.90			
D-8-189	R6	RIVERINE	0.018930	434.0	MRPW	34.917282	-116.815194	Odessa Canyon	1.90			
D-8-191	R6	RIVERINE	0.011930	273.5	MRPW	34.917487	-116.815163	Odessa Canyon	1.90			
D-8-192	R6	RIVERINE	0.007454	170.9	MRPW	34.917266	-116.815405	Odessa Canyon	1.90			
D-8-195	R6	RIVERINE	0.018184	416.9	MRPW	34.917383	-116.815527	Odessa Canyon	1.90			
D-8-197	R6	RIVERINE	0.020361	466.8	MRPW	34.917437	-116.815819	Odessa Canyon	1.90			
D-8-199	R6	RIVERINE	0.008527	195.5	MRPW	34.917705	-116.815650	Odessa Canyon	1.90			
D-8-200	R6	RIVERINE	0.001845	42.3	MRPW	34.917892	-116.815583	Odessa Canyon	1.90			
D-8-204	R6	RIVERINE	0.009339	214.1	MRPW	34.917805	-116.815995	Odessa Canyon	1.90			
D-8-205	R6	RIVERINE	0.005653	129.6	MRPW	34.917890	-116.816064	Odessa Canyon	1.90			
D-8-209	R6	RIVERINE	0.017914	410.7	MRPW	34.917599	-116.816498	Odessa Canyon	1.90			
D-8-210	R6	RIVERINE	0.005718	131.1	MRPW	34.917979	-116.816219	Odessa Canyon	1.90			
D-8-212	R6	RIVERINE	0.008929	204.7	MRPW	34.917896	-116.816455	Odessa Canyon	1.90			
D-8-213	R6	RIVERINE	0.018520	424.6	MRPW	34.917648	-116.816663	Odessa Canyon	1.90			
D-8-214	R6	RIVERINE	0.014821	339.8	MRPW	34.917777	-116.816748	Odessa Canyon	1.90			
D-8-218	R6	RIVERINE	0.018546	425.2	MRPW	34.917718	-116.817173	Odessa Canyon	1.90			
D-8-222	R6	RIVERINE	0.020583	471.9	MRPW	34.918014	-116.817957	Odessa Canyon	1.90			
D-8-223	R6	RIVERINE	0.015140	347.1	MRPW	34.917835	-116.817979	Odessa Canyon	1.90			
D-8-225	R6	RIVERINE	0.011057	253.5	MRPW	34.918142	-116.817956	Odessa Canyon	1.90			
D-8-227	R6	RIVERINE	0.007123	163.3	MRPW	34.917680	-116.818390	Odessa Canyon	1.90			
D-8-228	R6	RIVERINE	0.017521	401.7	MRPW	34.918123	-116.818356	Odessa Canyon	1.90			
D-8-229	R6	RIVERINE	0.010503	240.8	MRPW	34.918283	-116.818331	Odessa Canyon	1.90			
D-8-231	R6	RIVERINE	0.019074	437.3	MRPW	34.918060	-116.818658	Odessa Canyon	1.90			
D-8-232	R6	RIVERINE	0.019144	438.9	MRPW	34.918126	-116.818844	Odessa Canyon	1.90			
D-8-233	R6	RIVERINE	0.008649	198.3	MRPW	34.918403	-116.818681	Odessa Canyon	1.90			
D-8-235	R6	RIVERINE	0.019947	457.3	MRPW	34.918215	-116.819291	Odessa Canyon	1.90			
D-8-238	R6	RIVERINE	0.007289	167.1	MRPW	34.918560	-116.819264	Odessa Canyon	1.90			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-240	R6	RIVERINE	0.005758	132.0	MRPW	34.918615	-116.819341	Odessa Canyon	1.90			
D-8-241	R6	RIVERINE	0.011498	263.6	MRPW	34.917997	-116.819497	Odessa Canyon	1.90			
D-8-242	R6	RIVERINE	0.018669	428.0	MRPW	34.918296	-116.819714	Odessa Canyon	1.90			
D-8-243	R6	RIVERINE	0.010084	231.2	MRPW	34.918063	-116.819953	Odessa Canyon	1.90			
D-8-248	R6	RIVERINE	0.018965	434.8	MRPW	34.918357	-116.820162	Odessa Canyon	1.90			
D-8-254	R6	RIVERINE	0.018817	431.4	MRPW	34.918423	-116.820408	Odessa Canyon	1.90			
D-8-255	R6	RIVERINE	0.006922	158.7	MRPW	34.918514	-116.820530	Odessa Canyon	1.90			
D-8-262	R6	RIVERINE	0.018751	429.9	MRPW	34.918505	-116.820838	Odessa Canyon	1.90			
D-8-268	R6	RIVERINE	0.011777	270.0	MRPW	34.918709	-116.820940	Odessa Canyon	1.90			
D-8-270	R6	RIVERINE	0.018315	419.9	MRPW	34.918582	-116.821245	Odessa Canyon	1.90			
D-8-271	R6	RIVERINE	0.007729	177.2	MRPW	34.918891	-116.821238	Odessa Canyon	1.90			
D-8-278	R6	RIVERINE	0.020038	459.4	MRPW	34.918550	-116.821727	Odessa Canyon	1.90			
D-8-283	R6	RIVERINE	0.018455	423.1	MRPW	34.918734	-116.822131	Odessa Canyon	1.90			
D-8-286	R6	RIVERINE	0.012584	288.5	MRPW	34.918922	-116.822307	Odessa Canyon	1.90			
D-8-288	R6	RIVERINE	0.006948	159.3	MRPW	34.919108	-116.822359	Odessa Canyon	1.90			
D-8-291	R6	RIVERINE	0.018258	418.6	MRPW	34.918801	-116.822784	Odessa Canyon	1.90			
D-8-294	R6	RIVERINE	0.019489	446.8	MRPW	34.918866	-116.823313	Odessa Canyon	1.90			
D-8-295	R6	RIVERINE	0.010634	243.8	MRPW	34.918944	-116.823012	Odessa Canyon	1.90			
D-8-297	R6	RIVERINE	0.007786	178.5	MRPW	34.919140	-116.823004	Odessa Canyon	1.90			
D-8-303	R6	RIVERINE	0.018516	424.5	MRPW	34.918964	-116.823989	Odessa Canyon	1.90			
D-8-304	R6	RIVERINE	0.003590	82.3	MRPW	34.919423	-116.823962	Odessa Canyon	1.90			
D-8-306	R6	RIVERINE	0.007363	168.8	MRPW	34.918600	-116.823791	Odessa Canyon	1.90			
D-8-307	R6	RIVERINE	0.018001	412.7	MRPW	34.919013	-116.824398	Odessa Canyon	1.90			
D-8-316	R6	RIVERINE	0.010128	232.2	MRPW	34.918801	-116.824728	Odessa Canyon	1.90			
D-8-317	R6	RIVERINE	0.002931	67.2	MRPW	34.918572	-116.824568	Odessa Canyon	1.90			
D-8-319	R6	RIVERINE	0.019013	435.9	MRPW	34.919069	-116.824835	Odessa Canyon	1.90			
D-8-320	R6	RIVERINE	0.009574	219.5	MRPW	34.919031	-116.824915	Odessa Canyon	1.90			
D-8-325	R6	RIVERINE	0.018716	429.1	MRPW	34.919082	-116.825182	Odessa Canyon	1.90			
D-8-330	R6	RIVERINE	0.012972	297.4	MRPW	34.918964	-116.825433	Odessa Canyon	1.90			
D-8-333	R6	RIVERINE	0.018577	425.9	MRPW	34.919132	-116.825867	Odessa Canyon	1.90			
D-8-334	R6	RIVERINE	0.006905	158.3	MRPW	34.918919	-116.825679	Odessa Canyon	1.90			
D-8-335	R6	RIVERINE	0.008889	203.8	MRPW	34.919092	-116.825737	Odessa Canyon	1.90			
D-8-338	R6	RIVERINE	0.009666	221.6	MRPW	34.919340	-116.826308	Odessa Canyon	1.90			
D-8-339	R6	RIVERINE	0.016627	381.2	MRPW	34.919252	-116.826044	Odessa Canyon	1.90			
D-8-340	R6	RIVERINE	0.003106	71.2	MRPW	34.919633	-116.826026	Odessa Canyon	1.90			
D-8-341	R6	RIVERINE	0.019231	440.9	MRPW	34.919181	-116.826391	Odessa Canyon	1.90			
D-8-344	R6	RIVERINE	0.006080	139.4	MRPW	34.918857	-116.826586	Odessa Canyon	1.90			
D-8-345	R6	RIVERINE	0.015114	346.5	MRPW	34.919155	-116.826722	Odessa Canyon	1.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point		
D-8-347	R6	RIVERINE	0.012824	294.0	MRPW	34.919087	-116.826881	Odessa Canyon	1.90			
D-8-348	R6	RIVERINE	0.007890	180.9	MRPW	34.919328	-116.826965	Odessa Canyon	1.90			
D-8-350	R6	RIVERINE	0.018019	413.1	MRPW	34.919252	-116.827080	Odessa Canyon	1.90			
D-8-352	R6	RIVERINE	0.019419	445.2	MRPW	34.919270	-116.827262	Odessa Canyon	1.90			
D-8-360	R6	RIVERINE	0.018350	420.7	MRPW	34.919324	-116.827638	Odessa Canyon	1.90			
D-8-361	R6	RIVERINE	0.010442	239.4	MRPW	34.919091	-116.827904	Odessa Canyon	1.90			
D-8-363	R6	RIVERINE	0.022180	508.5	MRPW	34.919323	-116.828000	Odessa Canyon	1.90			
D-8-364	R6	RIVERINE	0.005758	132.0	MRPW	34.919694	-116.827781	Odessa Canyon	1.90			
D-8-367	R6	RIVERINE	0.018634	427.2	MRPW	34.919346	-116.828300	Odessa Canyon	1.90			
D-8-368	R6	RIVERINE	0.005095	116.8	MRPW	34.919738	-116.828107	Odessa Canyon	1.90			
D-8-374	R6	RIVERINE	0.007140	163.7	MRPW	34.919016	-116.828456	Odessa Canyon	1.90			
D-8-375	R6	RIVERINE	0.005287	121.2	MRPW	34.918940	-116.828574	Odessa Canyon	1.90			
D-8-376	R6	RIVERINE	0.011467	262.9	MRPW	34.919042	-116.828719	Odessa Canyon	1.90			
D-8-379	R6	RIVERINE	0.022577	517.6	MRPW	34.919374	-116.829178	Odessa Canyon	1.90			
D-8-380	R6	RIVERINE	0.001906	43.7	MRPW	34.919868	-116.828805	Odessa Canyon	1.90			
D-8-381	R6	RIVERINE	0.003140	72.0	MRPW	34.919829	-116.829100	Odessa Canyon	1.90			
D-8-393	R6	RIVERINE	0.022428	514.2	MRPW	34.919382	-116.830394	Odessa Canyon	1.90			
D-8-395	R6	RIVERINE	0.020169	462.4	MRPW	34.919469	-116.829926	Odessa Canyon	1.90			
D-8-396	R6	RIVERINE	0.021059	482.8	MRPW	34.919485	-116.829552	Odessa Canyon	1.90			
D-8-400	R6	RIVERINE	0.010604	243.1	MRPW	34.919509	-116.830730	Odessa Canyon	1.90			
D-8-401	R6	RIVERINE	0.012802	293.5	MRPW	34.919582	-116.830579	Odessa Canyon	1.90			
D-8-404	R6	RIVERINE	0.020090	460.6	MRPW	34.919381	-116.831117	Odessa Canyon	1.90			
D-8-413	R6	RIVERINE	0.018708	428.9	MRPW	34.919432	-116.832029	Odessa Canyon	1.90			
D-8-416	R6	RIVERINE	0.018625	427.0	MRPW	34.919388	-116.832564	Odessa Canyon	1.90			
D-8-422	R6	RIVERINE	0.013452	308.4	MRPW	34.919561	-116.832864	Odessa Canyon	1.90			
D-8-425	R6	RIVERINE	0.011022	252.7	MRPW	34.919621	-116.833149	Odessa Canyon	1.90			
D-8-427	R6	RIVERINE	0.009343	214.2	MRPW	34.919169	-116.833189	Odessa Canyon	1.90			
D-8-438	R6	RIVERINE	0.016191	371.2	MRPW	34.919565	-116.833217	Odessa Canyon	1.90			
D-8-439	R6	RIVERINE	0.020876	478.6	MRPW	34.919556	-116.833774	Odessa Canyon	1.90			
D-8-442	R6	RIVERINE	0.005448	124.9	MRPW	34.919771	-116.834062	Odessa Canyon	1.90			
D-8-450	R6	RIVERINE	0.020797	476.8	MRPW	34.919199	-116.835151	Odessa Canyon	1.90			
D-8-451	R6	RIVERINE	0.014882	341.2	MRPW	34.919454	-116.834764	Odessa Canyon	1.90			
D-8-454	R6	RIVERINE	0.008693	199.3	MRPW	34.919614	-116.835458	Odessa Canyon	1.90			
D-8-457	R6	RIVERINE	0.018311	419.8	MRPW	34.919298	-116.835825	Odessa Canyon	1.90			
D-8-458	R6	RIVERINE	0.011934	273.6	MRPW	34.919522	-116.835735	Odessa Canyon	1.90			
D-8-466	R6	RIVERINE	0.019619	449.8	MRPW	34.919266	-116.836569	Odessa Canyon	1.90			
D-8-474	R6	RIVERINE	0.020775	476.3	MRPW	34.919232	-116.836842	Odessa Canyon	1.90	8D30		
D-8-477	R6	RIVERINE	0.020426	468.3	MRPW	34.919081	-116.838440	Odessa Canyon	1.90	8D23		

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-8-480	R6	RIVERINE	0.006900	158.2	MRPW	34.919434	-116.838443	Odessa Canyon	1.90	
D-8-481	R6	RIVERINE	0.006839	156.8	MRPW	34.919451	-116.838668	Odessa Canyon	1.90	
D-8-484	R6	RIVERINE	0.015310	351.0	MRPW	34.919169	-116.839072	Odessa Canyon	1.90	
D-8-486	R6	RIVERINE	0.019358	443.8	MRPW	34.919145	-116.839141	Odessa Canyon	1.90	
D-8-498	R6	RIVERINE	0.019427	445.4	MRPW	34.918920	-116.840314	Odessa Canyon	1.90	
D-8-501	R6	RIVERINE	0.012872	295.1	MRPW	34.919050	-116.840883	Odessa Canyon	1.90	
D-8-503	R6	RIVERINE	0.003263	74.8	MRPW	34.919315	-116.841341	Odessa Canyon	1.90	
D-8-504	R6	RIVERINE	0.017447	400.0	MRPW	34.918753	-116.841865	Odessa Canyon	1.90	
D-8-516	R6	RIVERINE	0.018067	414.2	MRPW	34.918791	-116.842334	Odessa Canyon	1.90	
D-8-528	R6	RIVERINE	0.019288	442.2	MRPW	34.918692	-116.843427	Odessa Canyon	1.90	
D-8-532	R6	RIVERINE	0.018712	429.0	MRPW	34.918601	-116.844118	Odessa Canyon	1.90	
D-8-534	R6	RIVERINE	0.014387	417.8	MRPW	34.918589	-116.844391	Odessa Canyon	1.50	
D-8-542	R6	RIVERINE	0.020583	471.9	MRPW	34.918410	-116.845436	Odessa Canyon	1.90	
D-8-552	R6	RIVERINE	0.009980	228.8	MRPW	34.918759	-116.845311	Odessa Canyon	1.90	
D-8-555	R6	RIVERINE	0.016278	373.2	MRPW	34.918582	-116.845892	Odessa Canyon	1.90	
D-8-557	R6	RIVERINE	0.003127	71.7	MRPW	34.918684	-116.845897	Odessa Canyon	1.90	
D-8-563	R6	RIVERINE	0.005143	117.9	MRPW	34.918818	-116.846662	Odessa Canyon	1.90	
D-8-573	R6	RIVERINE	0.010337	237.0	MRPW	34.916371	-116.865531	Odessa Canyon	1.90	
D-8-574	R6	RIVERINE	0.015244	349.5	MRPW	34.916230	-116.866881	Odessa Canyon	1.90	
D-8-575	R6	RIVERINE	0.006822	156.4	MRPW	34.916322	-116.866991	Odessa Canyon	1.90	
D-8-582	R6	RIVERINE	0.021752	498.7	MRPW	34.914105	-116.892659	Odessa Canyon	1.90	
D-8-583	R6	RIVERINE	0.008039	184.3	MRPW	34.913862	-116.892052	Odessa Canyon	1.90	
D-8-584	R6	RIVERINE	0.008440	193.5	MRPW	34.913783	-116.892546	Odessa Canyon	1.90	
D-8-585	R6	RIVERINE	0.002168	49.7	MRPW	34.913619	-116.892534	Odessa Canyon	1.90	
D-8-586	R6	RIVERINE	0.018734	429.5	MRPW	34.913999	-116.893120	Odessa Canyon	1.90	
D-8-587	R6	RIVERINE	0.022982	526.9	MRPW	34.913976	-116.893290	Odessa Canyon	1.90	
D-8-588	R6	RIVERINE	0.012453	285.5	MRPW	34.913877	-116.892908	Odessa Canyon	1.90	
D-8-589	R6	RIVERINE	0.021456	491.9	MRPW	34.913744	-116.894692	Odessa Canyon	1.90	
D-8-590	R6	RIVERINE	0.016387	375.7	MRPW	34.913686	-116.894135	Odessa Canyon	1.90	
D-8-591	R6	RIVERINE	0.005382	123.4	MRPW	34.913999	-116.894718	Odessa Canyon	1.90	
D-8-592	R6	RIVERINE	0.021683	497.1	MRPW	34.913817	-116.893721	Odessa Canyon	1.90	
D-8-593	R6	RIVERINE	0.005234	120.0	MRPW	34.914038	-116.894284	Odessa Canyon	1.90	
D-8-594	R6	RIVERINE	0.007642	175.2	MRPW	34.913541	-116.893618	Odessa Canyon	1.90	
D-8-595	R6	RIVERINE	0.022969	526.6	MRPW	34.913735	-116.894869	Odessa Canyon	1.90	
D-8-596	R6	RIVERINE	0.010909	250.1	MRPW	34.913820	-116.895252	Odessa Canyon	1.90	
D-8-597	R6	RIVERINE	0.003455	79.2	MRPW	34.914090	-116.894657	Odessa Canyon	1.90	
D-8-598	R6	RIVERINE	0.008750	200.6	MRPW	34.913176	-116.894990	Odessa Canyon	1.90	
D-8-599	R6	RIVERINE	0.018520	424.6	MRPW	34.912144	-116.898922	Odessa Canyon	1.90	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-600	R6	RIVERINE	0.001801	41.3	MRPW	34.912578	-116.899220	Odessa Canyon	1.90			
D-8-601	R6	RIVERINE	0.015358	352.1	MRPW	34.912260	-116.898716	Odessa Canyon	1.90			
D-8-602	R6	RIVERINE	0.020644	473.3	MRPW	34.911964	-116.899407	Odessa Canyon	1.90			
D-8-603	R6	RIVERINE	0.004785	109.7	MRPW	34.912184	-116.899604	Odessa Canyon	1.90			
D-8-604	R6	RIVERINE	0.017944	411.4	MRPW	34.911794	-116.899857	Odessa Canyon	1.90			
D-8-605	R6	RIVERINE	0.013491	309.3	MRPW	34.911725	-116.900406	Odessa Canyon	1.90			
D-8-606	R6	RIVERINE	0.018189	417.0	MRPW	34.911369	-116.900831	Odessa Canyon	1.90			
D-8-607	R6	RIVERINE	0.005160	118.3	MRPW	34.911749	-116.901014	Odessa Canyon	1.90			
D-8-608	R6	RIVERINE	0.017495	401.1	MRPW	34.911098	-116.901583	Odessa Canyon	1.90			
D-8-609	R6	RIVERINE	0.023541	539.7	MRPW	34.910370	-116.903381	Odessa Canyon	1.90			
D-8-610	R6	RIVERINE	0.011367	260.6	MRPW	34.910617	-116.903584	Odessa Canyon	1.90			
D-8-611	R6	RIVERINE	0.006551	150.2	MRPW	34.910613	-116.903748	Odessa Canyon	1.90			
D-8-612	R6	RIVERINE	0.013085	300.0	MRPW	34.910403	-116.903693	Odessa Canyon	1.90			
D-8-613	R6	RIVERINE	0.009544	218.8	MRPW	34.909909	-116.903768	Odessa Canyon	1.90			
D-8-614	R6	RIVERINE	0.006839	156.8	MRPW	34.909985	-116.903430	Odessa Canyon	1.90			
D-8-615	R6	RIVERINE	0.008039	184.3	MRPW	34.910077	-116.903270	Odessa Canyon	1.90			
D-8-616	R6	RIVERINE	0.017748	406.9	MRPW	34.909771	-116.904872	Odessa Canyon	1.90			
D-8-617	R6	RIVERINE	0.018442	422.8	MRPW	34.909675	-116.905130	Odessa Canyon	1.90			
D-8-618	R6	RIVERINE	0.044139	1479.0	MRPW	34.906472	-116.912709	Odessa Canyon	1.30			
D-8-620	R6	RIVERINE	0.018023	413.2	MRPW	34.908633	-116.907693	Odessa Canyon	1.90			
D-8-621	R6	RIVERINE	0.007603	174.3	MRPW	34.908976	-116.907742	Odessa Canyon	1.90			
D-8-622	R6	RIVERINE	0.012139	278.3	MRPW	34.906322	-116.912555	Odessa Canyon	1.90			
D-8-623	R6	RIVERINE	0.234246	816.3	MRPW	34.904328	-116.920090	Odessa Canyon	12.50	8MD10		
D-8-624	R6	RIVERINE	0.021935	502.9	MRPW	34.904784	-116.919534	Odessa Canyon	1.90			
D-8-625	R6	RIVERINE	0.008462	194.0	MRPW	34.904628	-116.920116	Odessa Canyon	1.90			
D-8-626	R6	RIVERINE	0.039121	896.9	MRPW	34.904620	-116.918284	Odessa Canyon	1.90			
D-8-627	R6	RIVERINE	0.020535	470.8	MRPW	34.903760	-116.921937	Odessa Canyon	1.90			
D-8-628	R6	RIVERINE	0.046036	589.8	MRPW	34.903584	-116.922332	Odessa Canyon	3.40	8MD9		
D-8-629	R6	RIVERINE	0.012741	292.1	MRPW	34.903933	-116.922220	Odessa Canyon	1.90			
D-8-630	R6	RIVERINE	0.009727	223.0	MRPW	34.903702	-116.922282	Odessa Canyon	1.90			
D-8-631	R6	RIVERINE	0.019087	437.6	MRPW	34.903243	-116.922420	Odessa Canyon	1.90			
D-8-632	R6	RIVERINE	0.012957	68.0	MRPW	34.903060	-116.923068	Odessa Canyon	8.30			
D-8-633	R6	RIVERINE	0.005771	132.3	MRPW	34.903128	-116.922775	Odessa Canyon	1.90			
D-8-634	R6	RIVERINE	0.020343	466.4	MRPW	34.903818	-116.923183	Odessa Canyon	1.90			
D-8-635	R6	RIVERINE	0.012614	289.2	MRPW	34.903621	-116.922660	Odessa Canyon	1.90			
D-8-636	R6	RIVERINE	0.014869	340.9	MRPW	34.903621	-116.925650	Odessa Canyon	1.90			
D-8-637	R6	RIVERINE	0.030428	697.6	MRPW	34.903120	-116.926013	Odessa Canyon	1.90			
D-8-638	R6	RIVERINE	0.007463	171.1	MRPW	34.903528	-116.927077	Odessa Canyon	1.90			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-639	R6	RIVERINE	0.021395	490.5	MRPW	34.903205	-116.927249	Odessa Canyon	1.90			
D-8-640	R6	RIVERINE	0.004876	111.8	MRPW	34.902786	-116.926911	Odessa Canyon	1.90			
D-8-641	R6	RIVERINE	0.014486	332.1	MRPW	34.902896	-116.928480	Odessa Canyon	1.90			
D-8-642	R6	RIVERINE	0.004955	113.6	MRPW	34.903171	-116.927503	Odessa Canyon	1.90			
D-8-643	R6	RIVERINE	0.005095	116.8	MRPW	34.903412	-116.927761	Odessa Canyon	1.90			
D-8-644	R6	RIVERINE	0.005522	126.6	MRPW	34.903592	-116.927779	Odessa Canyon	1.90			
D-8-645	R6	RIVERINE	0.029355	673.0	MRPW	34.903039	-116.928164	Odessa Canyon	1.90			
D-8-647	R6	RIVERINE	0.019824	454.5	MRPW	34.903197	-116.929174	Odessa Canyon	1.90			
D-8-648	R6	RIVERINE	0.013020	298.5	MRPW	34.903370	-116.929547	Odessa Canyon	1.90			
D-8-649	R6	RIVERINE	0.003559	81.6	MRPW	34.903204	-116.929598	Odessa Canyon	1.90			
D-8-650	R6	RIVERINE	0.002774	63.6	MRPW	34.902751	-116.929225	Odessa Canyon	1.90			
D-8-651	R6	RIVERINE	0.013068	299.6	MRPW	34.903210	-116.929959	Odessa Canyon	1.90			
D-8-652	R6	RIVERINE	0.007092	162.6	MRPW	34.903279	-116.930105	Odessa Canyon	1.90			
D-8-653	R6	RIVERINE	0.008257	189.3	MRPW	34.903093	-116.930193	Odessa Canyon	1.90			
D-8-655	R6	RIVERINE	0.012575	288.3	MRPW	34.903665	-116.931374	Odessa Canyon	1.90			
D-8-656	R6	RIVERINE	0.008806	201.9	MRPW	34.903383	-116.932119	Odessa Canyon	1.90			
D-8-657	R6	RIVERINE	0.003481	79.8	MRPW	34.903398	-116.931747	Odessa Canyon	1.90			
D-8-660	R6	RIVERINE	0.304236	1472.5	MRPW	34.903245	-116.932953	Odessa Canyon	9.00	8MD11		
D-8-670	R6	RIVERINE	0.006272	143.8	MRPW	34.904272	-116.935716	Odessa Canyon	1.90			
D-8-671	R6	RIVERINE	0.008305	190.4	MRPW	34.904027	-116.935862	Odessa Canyon	1.90			
D-8-672	R6	RIVERINE	0.014939	342.5	MRPW	34.904288	-116.936274	Odessa Canyon	1.90			
D-8-678	R6	RIVERINE	0.014289	327.6	MRPW	34.904390	-116.938120	Odessa Canyon	1.90			
D-8-679	R6	RIVERINE	0.004309	98.8	MRPW	34.904596	-116.937941	Odessa Canyon	1.90			
D-8-680	R6	RIVERINE	0.001217	27.9	MRPW	34.904672	-116.937909	Odessa Canyon	1.90			
D-8-681	R6	RIVERINE	0.003319	76.1	MRPW	34.904484	-116.938119	Odessa Canyon	1.90			
D-8-682	R6	RIVERINE	0.001950	44.7	MRPW	34.904296	-116.938289	Odessa Canyon	1.90			
D-8-684	R6	RIVERINE	0.016653	381.8	MRPW	34.904439	-116.938701	Odessa Canyon	1.90			
D-8-685	R6	RIVERINE	0.006983	160.1	MRPW	34.904614	-116.938988	Odessa Canyon	1.90			
D-8-686	R6	RIVERINE	0.005321	122.0	MRPW	34.904623	-116.938460	Odessa Canyon	1.90			
D-8-687	R6	RIVERINE	0.004497	103.1	MRPW	34.904665	-116.938590	Odessa Canyon	1.90			
D-8-688	R6	RIVERINE	0.003162	72.5	MRPW	34.904715	-116.938485	Odessa Canyon	1.90			
D-8-690	R6	RIVERINE	0.070768	460.1	MRPW	34.918407	-116.846484	Odessa Canyon	6.70	8M1		
D-8-691	R6	RIVERINE	0.001383	31.7	MRPW	34.916391	-116.867250	Odessa Canyon	1.90			
D-8-692	R6	RIVERINE	0.005984	137.2	MRPW	34.916348	-116.867240	Odessa Canyon	1.90			
D-8-693	R6	RIVERINE	0.003673	84.2	MRPW	34.916343	-116.867409	Odessa Canyon	1.90			
D-8-694	R6	RIVERINE	0.003590	82.3	MRPW	34.916387	-116.867049	Odessa Canyon	1.90			
D-8-695	R6	RIVERINE	0.002853	65.4	MRPW	34.916349	-116.866949	Odessa Canyon	1.90			
D-8-696	R6	RIVERINE	0.007559	173.3	MRPW	34.916481	-116.866428	Odessa Canyon	1.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-697	R6	RIVERINE	0.008475	194.3	MRPW	34.916329	-116.866594	Odessa Canyon	1.90			
D-8-698	R6	RIVERINE	0.011070	253.8	MRPW	34.916339	-116.866514	Odessa Canyon	1.90			
D-8-699	R6	RIVERINE	0.004083	93.6	MRPW	34.916481	-116.865589	Odessa Canyon	1.90			
D-8-700	R6	RIVERINE	0.004318	99.0	MRPW	34.916306	-116.865323	Odessa Canyon	1.90			
D-8-701	R6	RIVERINE	0.006063	139.0	MRPW	34.916369	-116.864994	Odessa Canyon	1.90			
D-8-702	R6	RIVERINE	0.003223	73.9	MRPW	34.916377	-116.864886	Odessa Canyon	1.90			
D-8-703	R6	RIVERINE	0.007616	150.8	MRPW	34.917961	-116.847576	Odessa Canyon	2.20	8D3		
D-8-704	R6	RIVERINE	0.018682	428.3	MRPW	34.918637	-116.843907	Odessa Canyon	1.90			
D-8-706	R6	RIVERINE	0.023004	527.4	MRPW	34.919421	-116.834047	Odessa Canyon	1.90			
D-8-707	R6	RIVERINE	0.017691	405.6	MRPW	34.919418	-116.832850	Odessa Canyon	1.90			
D-8-708	R6	RIVERINE	0.018019	413.1	MRPW	34.919429	-116.831671	Odessa Canyon	1.90			
D-8-709	R6	RIVERINE	0.011986	274.8	MRPW	34.919251	-116.824604	Odessa Canyon	1.90			
D-8-710	R6	RIVERINE	0.004244	97.3	MRPW	34.919088	-116.821764	Odessa Canyon	1.90			
D-8-712	R6	RIVERINE	0.017709	406.0	MRPW	34.917830	-116.817459	Odessa Canyon	1.90			
D-8-713	R6	RIVERINE	0.084481	460.0	MRPW	34.915475	-116.807828	Odessa Canyon	8.00			
D-8-714	R6	RIVERINE	0.005936	136.1	MRPW	34.915964	-116.807998	Odessa Canyon	1.90			
D-8-715	R6	RIVERINE	0.003721	85.3	MRPW	34.915928	-116.807830	Odessa Canyon	1.90			
D-8-716	R6	RIVERINE	0.052966	576.8	MRPW	34.914867	-116.803278	Odessa Canyon	4.00			
D-8-717	R6	RIVERINE	0.014708	337.2	MRPW	34.908598	-116.908037	Odessa Canyon	1.90			
D-8-718	R6	RIVERINE	0.016905	409.1	MRPW	34.908464	-116.908102	Odessa Canyon	1.80	8D4		
D-8-720	R6	RIVERINE	0.010618	355.8	MRPW	34.906669	-116.913175	Odessa Canyon	1.30	8D7		
D-8-721	R6	RIVERINE	0.020315	421.4	MRPW	34.906835	-116.912620	Odessa Canyon	2.10	8D6		
D-8-722	R6	RIVERINE	0.178080	934.6	MRPW	34.905908	-116.914342	Odessa Canyon	8.30			
D-8-723	R6	RIVERINE	0.008628	289.1	MRPW	34.906107	-116.913828	Odessa Canyon	1.30	8D8		
D-8-724	R6	RIVERINE	0.019441	445.7	MRPW	34.904393	-116.918073	Odessa Canyon	1.90			
D-8-725	R6	RIVERINE	0.004388	100.6	MRPW	34.903232	-116.931728	Odessa Canyon	1.90			
D-8-726	R6	RIVERINE	0.002722	62.4	MRPW	34.903152	-116.931433	Odessa Canyon	1.90			
D-8-727	R6	RIVERINE	0.005151	118.1	MRPW	34.903271	-116.931556	Odessa Canyon	1.90			
D-8-728	R6	RIVERINE	0.164133	861.4	MRPW	34.902839	-116.930112	Odessa Canyon	8.30			
D-8-729	R6	RIVERINE	0.007800	135.9	MRPW	34.903697	-116.934945	Odessa Canyon	2.50	8D12		
D-8-730	R6	RIVERINE	0.019109	438.1	MRPW	34.904146	-116.935589	Odessa Canyon	1.90			
D-8-731	R6	RIVERINE	0.019885	433.1	MRPW	34.916970	-116.813919	Odessa Canyon	2.00			
D-8-732	R6	RIVERINE	0.014518	316.2	MRPW	34.916922	-116.813549	Odessa Canyon	2.00			
D-8-733	R6	RIVERINE	0.007389	169.4	MRPW	34.919777	-116.833899	Odessa Canyon	1.90			
D-8-734	R6	RIVERINE	0.021883	501.7	MRPW	34.919170	-116.837375	Odessa Canyon	1.90	8D27		
D-8-735	R6	RIVERINE	0.007729	177.2	MRPW	34.919519	-116.837609	Odessa Canyon	1.90			
D-8-736	R6	RIVERINE	0.004554	104.4	MRPW	34.903247	-116.929044	Odessa Canyon	1.90			
D-8-737	R6	RIVERINE	0.001230	28.2	MRPW	34.904374	-116.935785	Odessa Canyon	1.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-8-738	R6	RIVERINE	0.025934	418.4	MRPW	34.918500	-116.844785	Odessa Canyon	2.70	8D2		
D-8-739	R6	RIVERINE	0.045840	499.2	MRPW	34.913489	-116.806003	Odessa Canyon	4.00			
D-8-740	R6	RIVERINE	0.002498	40.3	MRPW	34.918555	-116.844794	Odessa Canyon	2.70			
D-8-750	R6	RIVERINE	0.009564	416.6	MRPW	34.909119	-116.906472	Odessa Canyon	1.00			
D-8-751	R6	RIVERINE	0.004254	185.3	MRPW	34.909501	-116.906436	Odessa Canyon	1.00			
D-8-752	R6	RIVERINE	0.003538	154.1	MRPW	34.909218	-116.906565	Odessa Canyon	1.00	8D5		
D-8-753	R6	RIVERINE	0.007819	340.6	MRPW	34.919066	-116.837566	Odessa Canyon	1.00	8D26		
D-8-754	R6	RIVERINE	0.030200	438.5	MRPW	34.919145	-116.838100	Odessa Canyon	3.00	8D25		
D-8-755	R6	RIVERINE	0.009619	209.5	MRPW	34.919030	-116.838326	Odessa Canyon	2.00	8MD24		
D-8-756	R6	RIVERINE	0.001594	173.6	MRPW	34.919390	-116.837437	Odessa Canyon	0.40	8D28		
D-8-757	R6	RIVERINE	0.004154	452.4	MRPW	34.919232	-116.837155	Odessa Canyon	0.40	8D29		
D-8-758	R6	RIVERINE	0.001260	54.9	MRPW	34.918876	-116.846816	Odessa Canyon	1.00			
D-8-759	R6	RIVERINE	0.019444	338.8	MRPW	34.918249	-116.847012	Odessa Canyon	2.50	8D20		
D-8-760	R6	RIVERINE	0.006226	180.8	MRPW	34.917934	-116.847263	Odessa Canyon	1.50	8D19		
D-8-761	R6	RIVERINE	0.004604	133.7	MRPW	34.918213	-116.846828	Odessa Canyon	1.50			
D-9-1	R6	RIVERINE	0.028334	649.9	MRPW	34.915029	-116.790740	Sunrise Canyon-Mojave River	1.90			
D-9-4	R6	RIVERINE	0.022677	519.6	MRPW	34.915090	-116.790415	Sunrise Canyon-Mojave River	1.90			
D-9-7	R6	RIVERINE	0.017910	410.6	MRPW	34.915189	-116.789908	Sunrise Canyon-Mojave River	1.90			
D-9-11	R6	RIVERINE	0.005810	133.2	MRPW	34.915559	-116.789854	Sunrise Canyon-Mojave River	1.90			
D-9-13	R6	RIVERINE	0.009504	217.9	MRPW	34.915496	-116.789754	Sunrise Canyon-Mojave River	1.90			
D-9-22	R6	RIVERINE	0.015053	345.1	MRPW	34.915325	-116.789013	Sunrise Canyon-Mojave River	1.90			
D-9-33	R6	RIVERINE	0.014782	338.9	MRPW	34.915435	-116.788438	Sunrise Canyon-Mojave River	1.90			
D-9-39	R6	RIVERINE	0.013456	308.5	MRPW	34.915476	-116.787918	Sunrise Canyon-Mojave River	1.90			
D-9-45	R6	RIVERINE	0.014110	323.5	MRPW	34.915543	-116.787647	Sunrise Canyon-Mojave River	1.90			
D-9-48	R6	RIVERINE	0.012802	293.5	MRPW	34.915643	-116.787034	Sunrise Canyon-Mojave River	1.90			
D-9-52	R6	RIVERINE	0.012763	292.6	MRPW	34.915685	-116.786616	Sunrise Canyon-Mojave River	1.90			
D-9-55	R6	RIVERINE	0.011162	255.9	MRPW	34.915758	-116.786276	Sunrise Canyon-Mojave River	1.90			
D-9-56	R6	RIVERINE	0.012915	296.1	MRPW	34.915784	-116.785940	Sunrise Canyon-Mojave River	1.90			
D-9-57	R6	RIVERINE	0.006966	159.7	MRPW	34.915941	-116.785930	Sunrise Canyon-Mojave River	1.90			
D-9-58	R6	RIVERINE	0.012422	284.8	MRPW	34.915870	-116.785559	Sunrise Canyon-Mojave River	1.90			
D-9-61	R6	RIVERINE	0.012174	279.1	MRPW	34.915935	-116.785286	Sunrise Canyon-Mojave River	1.90			
D-9-68	R6	RIVERINE	0.011454	262.6	MRPW	34.916149	-116.784264	Sunrise Canyon-Mojave River	1.90			
D-9-71	R6	RIVERINE	0.011467	262.9	MRPW	34.916216	-116.783931	Sunrise Canyon-Mojave River	1.90			
D-9-80	R6	RIVERINE	0.011280	258.6	MRPW	34.916410	-116.783071	Sunrise Canyon-Mojave River	1.90			
D-9-83	R6	RIVERINE	0.006377	146.2	MRPW	34.916570	-116.782924	Sunrise Canyon-Mojave River	1.90			
D-9-87	R6	RIVERINE	0.011214	257.1	MRPW	34.916482	-116.782602	Sunrise Canyon-Mojave River	1.90			
D-9-92	R6	RIVERINE	0.011114	254.8	MRPW	34.916591	-116.782037	Sunrise Canyon-Mojave River	1.90			
D-9-100	R6	RIVERINE	0.011240	257.7	MRPW	34.916681	-116.781711	Sunrise Canyon-Mojave River	1.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-9-101	R6	RIVERINE	0.005544	127.1	MRPW	34.916524	-116.781630	Sunrise Canyon-Mojave River	1.90	
D-9-103	R6	RIVERINE	0.010010	229.5	MRPW	34.916801	-116.781270	Sunrise Canyon-Mojave River	1.90	
D-9-106	R6	RIVERINE	0.011615	266.3	MRPW	34.916733	-116.781424	Sunrise Canyon-Mojave River	1.90	
D-9-107	R6	RIVERINE	0.011611	266.2	MRPW	34.916785	-116.781017	Sunrise Canyon-Mojave River	1.90	
D-9-110	R6	RIVERINE	0.011227	257.4	MRPW	34.916861	-116.780830	Sunrise Canyon-Mojave River	1.90	
D-9-114	R6	RIVERINE	0.011620	266.4	MRPW	34.916910	-116.780663	Sunrise Canyon-Mojave River	1.90	
D-9-131	R6	RIVERINE	0.010857	248.9	MRPW	34.917095	-116.779682	Sunrise Canyon-Mojave River	1.90	
D-9-132	R6	RIVERINE	0.004048	92.8	MRPW	34.917307	-116.779699	Sunrise Canyon-Mojave River	1.90	
D-9-133	R6	RIVERINE	0.006608	151.5	MRPW	34.917265	-116.779599	Sunrise Canyon-Mojave River	1.90	
D-9-134	R6	RIVERINE	0.011088	254.2	MRPW	34.917133	-116.779570	Sunrise Canyon-Mojave River	1.90	
D-9-145	R6	RIVERINE	0.011424	261.9	MRPW	34.917305	-116.778713	Sunrise Canyon-Mojave River	1.90	
D-9-149	R6	RIVERINE	0.010813	247.9	MRPW	34.917433	-116.778049	Sunrise Canyon-Mojave River	1.90	
D-9-152	R6	RIVERINE	0.012065	276.6	MRPW	34.917485	-116.777745	Sunrise Canyon-Mojave River	1.90	
D-9-154	R6	RIVERINE	0.011057	253.5	MRPW	34.917606	-116.777276	Sunrise Canyon-Mojave River	1.90	
D-9-155	R6	RIVERINE	0.011210	257.0	MRPW	34.917588	-116.777328	Sunrise Canyon-Mojave River	1.90	
D-9-156	R6	RIVERINE	0.001705	39.1	MRPW	34.917884	-116.777328	Sunrise Canyon-Mojave River	1.90	
D-9-158	R6	RIVERINE	0.011223	257.3	MRPW	34.917682	-116.776992	Sunrise Canyon-Mojave River	1.90	
D-9-159	R6	RIVERINE	0.018258	265.1	MRPW	34.917710	-116.776890	Sunrise Canyon-Mojave River	3.00	9MD6
D-9-160	R6	RIVERINE	0.002303	143.3	MRPW	34.917602	-116.776236	Sunrise Canyon-Mojave River	0.70	9D4
D-9-161	R6	RIVERINE	0.002394	208.6	MRPW	34.917931	-116.776009	Sunrise Canyon-Mojave River	0.50	
D-9-162	R6	RIVERINE	0.012902	295.8	MRPW	34.917941	-116.775599	Sunrise Canyon-Mojave River	1.90	
D-9-164	R6	RIVERINE	0.009273	212.6	MRPW	34.918314	-116.774390	Sunrise Canyon-Mojave River	1.90	
D-9-165	R6	RIVERINE	0.007502	172.0	MRPW	34.918419	-116.773921	Sunrise Canyon-Mojave River	1.90	
D-9-166	R6	RIVERINE	0.009395	215.4	MRPW	34.918317	-116.774215	Sunrise Canyon-Mojave River	1.90	
D-9-190	R6	RIVERINE	1.309819	4388.9	MRPW	34.916224	-116.782223	Sunrise Canyon-Mojave River	13.00	9M2
D-9-193	R6	RIVERINE	0.096224	625.6	MRPW	34.914967	-116.793280	Sunrise Canyon-Mojave River	6.70	
D-9-199	R6	RIVERINE	0.002730	62.6	MRPW	34.915520	-116.792104	Sunrise Canyon-Mojave River	1.90	
D-9-210	R6	RIVERINE	0.012540	287.5	MRPW	34.915141	-116.793640	Sunrise Canyon-Mojave River	1.90	
D-9-232	R6	RIVERINE	0.002246	51.5	MRPW	34.915508	-116.792662	Sunrise Canyon-Mojave River	1.90	
D-9-233	R6	RIVERINE	0.011188	256.5	MRPW	34.915163	-116.793810	Sunrise Canyon-Mojave River	1.90	
D-9-234	R6	RIVERINE	0.016605	380.7	MRPW	34.914962	-116.794222	Sunrise Canyon-Mojave River	1.90	
D-9-242	R6	RIVERINE	0.005679	130.2	MRPW	34.914557	-116.794136	Sunrise Canyon-Mojave River	1.90	
D-9-265	R6	RIVERINE	0.092927	487.7	MRPW	34.914824	-116.797184	Sunrise Canyon-Mojave River	8.30	
D-9-266	R6	RIVERINE	0.004567	104.7	MRPW	34.915182	-116.796708	Sunrise Canyon-Mojave River	1.90	
D-9-269	R6	RIVERINE	0.013509	70.9	MRPW	34.915244	-116.797374	Sunrise Canyon-Mojave River	8.30	
D-9-276	R6	RIVERINE	0.019288	442.2	MRPW	34.914755	-116.799543	Sunrise Canyon-Mojave River	1.90	
D-9-282	R6	RIVERINE	0.004855	111.3	MRPW	34.915101	-116.799938	Sunrise Canyon-Mojave River	1.90	
D-9-288	R6	RIVERINE	0.011554	264.9	MRPW	34.914886	-116.800800	Sunrise Canyon-Mojave River	1.90	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-9-301	R6	RIVERINE	0.005531	126.8	MRPW	34.914314	-116.800749	Sunrise Canyon-Mojave River	1.90	
D-9-303	R6	RIVERINE	0.012388	284.0	MRPW	34.914919	-116.801761	Sunrise Canyon-Mojave River	1.90	
D-9-309	R6	RIVERINE	0.023157	530.9	MRPW	34.914762	-116.801897	Sunrise Canyon-Mojave River	1.90	
D-9-316	R6	RIVERINE	0.020147	461.9	MRPW	34.914695	-116.799236	Sunrise Canyon-Mojave River	1.90	
D-9-317	R6	RIVERINE	0.063430	460.5	MRPW	34.914737	-116.801449	Sunrise Canyon-Mojave River	6.00	
D-9-318	R6	RIVERINE	0.005618	128.8	MRPW	34.915462	-116.791602	Sunrise Canyon-Mojave River	1.90	
D-9-319	R6	RIVERINE	0.011890	272.6	MRPW	34.915551	-116.787305	Sunrise Canyon-Mojave River	1.90	
D-9-320	R6	RIVERINE	0.011598	265.9	MRPW	34.917381	-116.778388	Sunrise Canyon-Mojave River	1.90	
D-9-321	R6	RIVERINE	0.007463	171.1	MRPW	34.917541	-116.778334	Sunrise Canyon-Mojave River	1.90	
D-9-322	R6	RIVERINE	0.002264	51.9	MRPW	34.915253	-116.797247	Sunrise Canyon-Mojave River	1.90	
D-9-323	R6	RIVERINE	0.010948	251.0	MRPW	34.916000	-116.785067	Sunrise Canyon-Mojave River	1.90	
D-9-324	R6	RIVERINE	0.012296	281.9	MRPW	34.916268	-116.783699	Sunrise Canyon-Mojave River	1.90	
D-9-325	R6	RIVERINE	0.011642	266.9	MRPW	34.916118	-116.784542	Sunrise Canyon-Mojave River	1.90	
D-9-326	R6	RIVERINE	0.002299	52.7	MRPW	34.917090	-116.781030	Sunrise Canyon-Mojave River	1.90	
D-9-327	R6	RIVERINE	0.011476	263.1	MRPW	34.916976	-116.780241	Sunrise Canyon-Mojave River	1.90	
D-9-328	R6	RIVERINE	0.010233	234.6	MRPW	34.918270	-116.774676	Sunrise Canyon-Mojave River	1.90	
D-9-329	R6	RIVERINE	0.012348	283.1	MRPW	34.917976	-116.775343	Sunrise Canyon-Mojave River	1.90	
D-9-330	R6	RIVERINE	0.000599	52.2	MRPW	34.917591	-116.775964	Sunrise Canyon-Mojave River	0.50	9D3
D-9-331	R6	RIVERINE	0.005426	124.4	MRPW	34.918645	-116.773350	Sunrise Canyon-Mojave River	1.90	
D-9-335	R6	RIVERINE	0.004148	95.1	MRPW	34.918447	-116.774452	Sunrise Canyon-Mojave River	1.90	
D-9-336	R6	RIVERINE	0.005313	121.8	MRPW	34.917142	-116.780393	Sunrise Canyon-Mojave River	1.90	
D-9-337	R6	RIVERINE	0.014381	329.7	MRPW	34.916388	-116.782860	Sunrise Canyon-Mojave River	1.90	
D-9-338	R6	RIVERINE	0.012165	278.9	MRPW	34.916353	-116.783301	Sunrise Canyon-Mojave River	1.90	
D-9-339	R6	RIVERINE	0.012292	281.8	MRPW	34.916059	-116.784700	Sunrise Canyon-Mojave River	1.90	
D-9-340	R6	RIVERINE	0.009326	213.8	MRPW	34.915709	-116.786418	Sunrise Canyon-Mojave River	1.90	
D-9-341	R6	RIVERINE	0.012889	295.5	MRPW	34.915554	-116.787468	Sunrise Canyon-Mojave River	1.90	
D-9-342	R6	RIVERINE	0.005121	117.4	MRPW	34.915837	-116.787245	Sunrise Canyon-Mojave River	1.90	
D-9-343	R6	RIVERINE	0.006695	153.5	MRPW	34.915644	-116.788653	Sunrise Canyon-Mojave River	1.90	
D-9-344	R6	RIVERINE	0.001810	41.5	MRPW	34.915666	-116.790121	Sunrise Canyon-Mojave River	1.90	
D-9-345	R6	RIVERINE	0.015306	350.9	MRPW	34.915324	-116.791686	Sunrise Canyon-Mojave River	1.90	
D-9-346	R6	RIVERINE	0.010259	235.2	MRPW	34.916636	-116.781898	Sunrise Canyon-Mojave River	1.90	
D-9-347	R6	RIVERINE	0.006181	141.7	MRPW	34.916634	-116.782769	Sunrise Canyon-Mojave River	1.90	
D-9-348	R6	RIVERINE	0.007319	167.8	MRPW	34.916453	-116.783263	Sunrise Canyon-Mojave River	1.90	
D-9-349	R6	RIVERINE	0.005339	122.4	MRPW	34.916559	-116.783266	Sunrise Canyon-Mojave River	1.90	
D-9-350	R6	RIVERINE	0.011249	257.9	MRPW	34.916307	-116.783498	Sunrise Canyon-Mojave River	1.90	
D-9-351	R6	RIVERINE	0.006534	149.8	MRPW	34.916432	-116.783635	Sunrise Canyon-Mojave River	1.90	
D-9-352	R6	RIVERINE	0.011847	271.6	MRPW	34.916093	-116.784486	Sunrise Canyon-Mojave River	1.90	
D-9-353	R6	RIVERINE	0.012135	278.2	MRPW	34.916121	-116.784404	Sunrise Canyon-Mojave River	1.90	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-9-354	R6	RIVERINE	0.012383	283.9	MRPW	34.916181	-116.784067	Sunrise Canyon-Mojave River	1.90	
D-9-355	R6	RIVERINE	0.006050	138.7	MRPW	34.915806	-116.787074	Sunrise Canyon-Mojave River	1.90	
D-9-356	R6	RIVERINE	0.013727	314.7	MRPW	34.915635	-116.787241	Sunrise Canyon-Mojave River	1.90	
D-9-357	R6	RIVERINE	0.012898	295.7	MRPW	34.915614	-116.786816	Sunrise Canyon-Mojave River	1.90	
D-9-358	R6	RIVERINE	0.003673	16.0	MRPW	34.917588	-116.775419	Sunrise Canyon-Mojave River	10.00	
D-9-359	R6	RIVERINE	0.001033	22.5	MRPW	34.921408	-116.756551	Sunrise Canyon-Mojave River	2.00	
D-9-360	R6	RIVERINE	0.001208	26.3	MRPW	34.920831	-116.759389	Sunrise Canyon-Mojave River	2.00	
D-9-361	R6	RIVERINE	0.001143	24.9	MRPW	34.920928	-116.758899	Sunrise Canyon-Mojave River	2.00	
D-9-362	R6	RIVERINE	0.000863	18.8	MRPW	34.919887	-116.763917	Sunrise Canyon-Mojave River	2.00	
D-9-363	R6	RIVERINE	0.001116	24.3	MRPW	34.919434	-116.766182	Sunrise Canyon-Mojave River	2.00	
D-9-364	R6	RIVERINE	0.002016	43.9	MRPW	34.923719	-116.745270	Sunrise Canyon-Mojave River	2.00	
D-9-365	R6	RIVERINE	0.000724	16.6	MRPW	34.916568	-116.781869	Sunrise Canyon-Mojave River	1.90	
D-9-370	R6	RIVERINE	0.001782	110.9	MRPW	34.917171	-116.778271	Sunrise Canyon-Mojave River	0.70	9D9
D-10-1	R6	RIVERINE	0.014132	307.8	MRPW	34.926687	-116.733118	Lake Jodie-Mojave River	2.00	
D-10-2	R6	RIVERINE	0.006244	136.0	MRPW	34.926508	-116.732917	Lake Jodie-Mojave River	2.00	
D-10-4	R6	RIVERINE	0.013209	287.7	MRPW	34.926645	-116.733312	Lake Jodie-Mojave River	2.00	
D-10-5	R6	RIVERINE	0.014091	306.9	MRPW	34.926772	-116.732643	Lake Jodie-Mojave River	2.00	
D-10-6	R6	RIVERINE	0.015230	331.7	MRPW	34.926777	-116.732418	Lake Jodie-Mojave River	2.00	
D-10-7	R6	RIVERINE	0.019114	416.3	MRPW	34.926808	-116.732039	Lake Jodie-Mojave River	2.00	
D-10-8	R6	RIVERINE	0.011786	256.7	MRPW	34.927081	-116.731216	Lake Jodie-Mojave River	2.00	
D-10-9	R6	RIVERINE	0.011511	250.7	MRPW	34.927465	-116.729437	Lake Jodie-Mojave River	2.00	10D4
D-10-10	R6	RIVERINE	0.012185	265.4	MRPW	34.927646	-116.728709	Lake Jodie-Mojave River	2.00	
D-10-11	R6	RIVERINE	0.012355	269.1	MRPW	34.927673	-116.728340	Lake Jodie-Mojave River	2.00	
D-10-12	R6	RIVERINE	0.011965	260.6	MRPW	34.927661	-116.728462	Lake Jodie-Mojave River	2.00	10D3
D-10-13	R6	RIVERINE	0.011391	248.1	MRPW	34.927930	-116.727214	Lake Jodie-Mojave River	2.00	
D-10-14	R6	RIVERINE	0.087431	253.9	MRPW	34.927828	-116.727669	Lake Jodie-Mojave River	15.00	10MD2
D-10-15	R6	RIVERINE	0.088283	349.6	MRPW	34.928603	-116.724166	Lake Jodie-Mojave River	11.00	10MD5
D-10-16	R6	RIVERINE	0.012713	276.9	MRPW	34.928971	-116.723371	Lake Jodie-Mojave River	2.00	
D-10-17	R6	RIVERINE	0.104444	413.6	MRPW	34.929040	-116.722951	Lake Jodie-Mojave River	11.00	10MD6
D-10-18	R6	RIVERINE	0.009706	211.4	MRPW	34.929660	-116.721842	Lake Jodie-Mojave River	2.00	
D-10-19	R6	RIVERINE	0.010441	227.4	MRPW	34.930339	-116.720685	Lake Jodie-Mojave River	2.00	
D-10-20	R6	RIVERINE	0.013128	357.4	MRPW	34.930224	-116.719997	Lake Jodie-Mojave River	1.60	
D-10-21	R6	RIVERINE	0.009594	261.2	MRPW	34.928263	-116.725724	Lake Jodie-Mojave River	1.60	
D-10-22	R6	RIVERINE	1.088939	4312.2	MRPW	34.927593	-116.727120	Lake Jodie-Mojave River	11.00	
D-10-24	R6	RIVERINE	0.011749	255.9	MRPW	34.927738	-116.727987	Lake Jodie-Mojave River	2.00	
D-10-25	R6	RIVERINE	0.006061	132.0	MRPW	34.927943	-116.727928	Lake Jodie-Mojave River	2.00	
D-10-26	R6	RIVERINE	0.005496	119.7	MRPW	34.928008	-116.727676	Lake Jodie-Mojave River	2.00	
D-10-27	R6	RIVERINE	0.013448	292.9	MRPW	34.926926	-116.731847	Lake Jodie-Mojave River	2.00	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-10-28	R6	RIVERINE	0.003581	78.0	MRPW	34.926479	-116.732771	Lake Jodie-Mojave River	2.00	
D-10-29	R6	RIVERINE	0.014773	58.5	MRPW	34.927723	-116.726075	Lake Jodie-Mojave River	11.00	10M1
D-10-30	R6	RIVERINE	0.001956	42.6	MRPW	34.926309	-116.732810	Lake Jodie-Mojave River	2.00	
D-11-1	R6	RIVERINE	0.012654	344.5	MRPW	34.931105	-116.718852	Dolores Lake	1.60	
D-11-2	R6	RIVERINE	0.011802	321.3	MRPW	34.931316	-116.718335	Dolores Lake	1.60	
D-11-3	R6	RIVERINE	0.010590	288.3	MRPW	34.931339	-116.718119	Dolores Lake	1.60	
D-11-4	R6	RIVERINE	0.009271	252.4	MRPW	34.931690	-116.717335	Dolores Lake	1.60	
D-11-5	R6	RIVERINE	0.009528	259.4	MRPW	34.931840	-116.717049	Dolores Lake	1.60	
D-11-7	R6	RIVERINE	0.010770	293.2	MRPW	34.932280	-116.716309	Dolores Lake	1.60	
D-11-8	R6	RIVERINE	0.003401	92.6	MRPW	34.932046	-116.716097	Dolores Lake	1.60	
D-11-9	R6	RIVERINE	0.010424	283.8	MRPW	34.931927	-116.716841	Dolores Lake	1.60	
D-11-10	R6	RIVERINE	0.010112	275.3	MRPW	34.932070	-116.716576	Dolores Lake	1.60	
D-11-11	R6	RIVERINE	0.005862	159.6	MRPW	34.931926	-116.716564	Dolores Lake	1.60	
D-11-12	R6	RIVERINE	0.043548	1185.6	MRPW	34.931139	-116.717677	Dolores Lake	1.60	
D-11-13	R6	RIVERINE	0.003232	88.0	MRPW	34.931020	-116.718227	Dolores Lake	1.60	
D-11-14	R6	RIVERINE	0.174470	690.9	MRPW	34.932619	-116.714524	Dolores Lake	11.00	
D-11-15	R6	RIVERINE	0.596648	1299.5	MRPW	34.945954	-116.687666	Dolores Lake	20.00	
D-12-2	R6	RIVERINE	0.008198	223.2	MRPW	34.993364	-116.578771	Manix Wash	1.60	
D-12-4	R6	RIVERINE	0.011769	320.4	MRPW	34.997246	-116.569646	Manix Wash	1.60	
D-12-5	R6	RIVERINE	0.007971	217.0	MRPW	34.997210	-116.568824	Manix Wash	1.60	
D-12-6	R6	RIVERINE	0.011519	313.6	MRPW	34.997453	-116.568355	Manix Wash	1.60	
D-12-12	R6	RIVERINE	0.006450	175.6	MRPW	35.003190	-116.554756	Manix Wash	1.60	
D-12-13	R6	RIVERINE	0.014703	400.3	MRPW	35.003294	-116.554760	Manix Wash	1.60	
D-12-16	R6	RIVERINE	0.016415	446.9	MRPW	35.004045	-116.553002	Manix Wash	1.60	
D-12-17	R6	RIVERINE	0.036226	315.6	MRPW	35.004359	-116.551520	Manix Wash	5.00	
D-12-19	R6	RIVERINE	0.011254	306.4	MRPW	35.005614	-116.548267	Manix Wash	1.60	
D-12-20	R6	RIVERINE	0.006714	182.8	MRPW	35.005828	-116.548198	Manix Wash	1.60	
D-12-21	R6	RIVERINE	0.014299	389.3	MRPW	35.005780	-116.547812	Manix Wash	1.60	
D-12-22	R6	RIVERINE	0.012562	342.0	MRPW	35.006087	-116.547151	Manix Wash	1.60	
D-12-23	R6	RIVERINE	0.010274	279.7	MRPW	35.006175	-116.547037	Manix Wash	1.60	
D-12-27	R6	RIVERINE	0.016501	359.4	MRPW	34.998984	-116.565588	Manix Wash	2.00	
D-12-28	R6	RIVERINE	0.044203	1925.5	MRPW	34.999836	-116.562826	Manix Wash	1.00	12D11
D-12-29	R6	RIVERINE	0.185204	645.4	MRPW	35.001672	-116.559371	Manix Wash	12.50	
D-12-30	R6	RIVERINE	0.257392	3866.2	MRPW	35.003072	-116.554211	Manix Wash	2.90	12M10
D-12-31	R6	RIVERINE	0.008915	242.7	MRPW	35.005525	-116.547619	Manix Wash	1.60	
D-12-33	R6	RIVERINE	0.067059	1718.3	MRPW	35.007519	-116.542059	Manix Wash	1.70	12M7
D-12-34	R6	RIVERINE	0.003254	88.6	MRPW	35.006119	-116.547701	Manix Wash	1.60	
D-12-35	R6	RIVERINE	0.007691	209.4	MRPW	35.004133	-116.552128	Manix Wash	1.60	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-12-37	R6	RIVERINE	0.011027	300.2	MRPW	35.004892	-116.550379	Manix Wash	1.60			
D-12-38	R6	RIVERINE	0.013444	366.0	MRPW	35.004985	-116.549800	Manix Wash	1.60			
D-12-39	R6	RIVERINE	0.010171	276.9	MRPW	35.002208	-116.557851	Manix Wash	1.60			
D-12-40	R6	RIVERINE	0.009822	267.4	MRPW	35.002236	-116.557794	Manix Wash	1.60			
D-12-41	R6	RIVERINE	0.011254	306.4	MRPW	35.002568	-116.556797	Manix Wash	1.60			
D-12-42	R6	RIVERINE	0.010961	298.4	MRPW	35.002540	-116.556884	Manix Wash	1.60			
D-12-43	R6	RIVERINE	0.005179	188.0	MRPW	35.002770	-116.556006	Manix Wash	1.20	12D9		
D-12-44	R6	RIVERINE	0.006174	168.1	MRPW	35.002824	-116.555743	Manix Wash	1.60			
D-12-45	R6	RIVERINE	0.002601	70.8	MRPW	34.997184	-116.569044	Manix Wash	1.60			
D-12-46	R6	RIVERINE	0.000768	20.9	MRPW	34.997068	-116.569075	Manix Wash	1.60			
D-12-47	R6	RIVERINE	0.012191	331.9	MRPW	34.996781	-116.570369	Manix Wash	1.60			
D-12-48	R6	RIVERINE	0.103802	565.2	MRPW	34.996857	-116.569704	Manix Wash	8.00			
D-12-49	R6	RIVERINE	0.070854	385.8	MRPW	34.993327	-116.578374	Manix Wash	8.00			
D-12-50	R6	RIVERINE	0.005943	161.8	MRPW	34.993646	-116.578212	Manix Wash	1.60			
D-12-51	R6	RIVERINE	0.068999	375.7	MRPW	34.990197	-116.585802	Manix Wash	8.00			
D-12-52	R6	RIVERINE	0.147309	1604.2	MRPW	34.990950	-116.583195	Manix Wash	4.00			
D-12-53	R6	RIVERINE	0.027704	301.7	MRPW	34.990564	-116.584789	Manix Wash	4.00			
D-12-58	R6	RIVERINE	0.001726	47.0	MRPW	34.973570	-116.622834	Manix Wash	1.60			
D-12-59	R6	RIVERINE	0.012342	336.0	MRPW	34.971049	-116.629775	Manix Wash	1.60			
D-12-61	R6	RIVERINE	0.000382	10.4	MRPW	34.970232	-116.630407	Manix Wash	1.60			
D-12-62	R6	RIVERINE	0.000345	9.4	MRPW	34.970412	-116.629994	Manix Wash	1.60			
D-12-69	R6	RIVERINE	0.005640	189.0	MRPW	35.006984	-116.536465	Manix Wash	1.30			
D-12-80	R6	RIVERINE	0.002449	213.4	MRPW	35.007732	-116.536818	Manix Wash	0.50	12D6		
D-12-81	R6	RIVERINE	0.000744	64.8	MRPW	35.007838	-116.536449	Manix Wash	0.50			
D-13-3	R6	RIVERINE	0.005171	250.3	MRPW	35.018641	-116.512675	Wilhelm Wash-Mojave River	0.90			
D-13-4	R6	RIVERINE	0.007209	348.9	MRPW	35.019088	-116.511198	Wilhelm Wash-Mojave River	0.90			
D-13-5	R6	RIVERINE	0.005810	281.2	MRPW	35.019138	-116.511180	Wilhelm Wash-Mojave River	0.90			
D-13-6	R6	RIVERINE	0.002424	117.3	MRPW	35.019225	-116.511363	Wilhelm Wash-Mojave River	0.90			
D-13-7	R6	RIVERINE	0.002258	109.3	MRPW	35.019244	-116.511291	Wilhelm Wash-Mojave River	0.90			
D-13-8	R6	RIVERINE	0.002390	115.7	MRPW	35.019627	-116.510373	Wilhelm Wash-Mojave River	0.90			
D-13-9	R6	RIVERINE	0.009418	273.5	MRPW	35.019506	-116.510331	Wilhelm Wash-Mojave River	1.50	13D17		
D-13-10	R6	RIVERINE	0.003750	326.7	MRPW	35.020069	-116.508542	Wilhelm Wash-Mojave River	0.50	13D12		
D-13-11	R6	RIVERINE	0.005446	263.6	MRPW	35.020161	-116.508565	Wilhelm Wash-Mojave River	0.90			
D-13-12	R6	RIVERINE	0.015358	267.6	MRPW	35.021528	-116.504531	Wilhelm Wash-Mojave River	2.50	D 19		
D-13-13	R6	RIVERINE	0.006822	330.2	MRPW	35.022095	-116.502869	Wilhelm Wash-Mojave River	0.90			
D-13-16	R6	RIVERINE	0.006649	321.8	MRPW	35.021801	-116.503620	Wilhelm Wash-Mojave River	0.90			
D-13-17	R6	RIVERINE	0.004081	197.5	MRPW	35.023112	-116.500124	Wilhelm Wash-Mojave River	0.90			
D-13-18	R6	RIVERINE	0.004225	204.5	MRPW	35.023355	-116.499434	Wilhelm Wash-Mojave River	0.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-13-19	R6	RIVERINE	0.001882	91.1	MRPW	35.023524	-116.499441	Wilhelm Wash-Mojave River	0.90	
D-13-20	R6	RIVERINE	0.003481	168.5	MRPW	35.023421	-116.499375	Wilhelm Wash-Mojave River	0.90	
D-13-21	R6	RIVERINE	0.004004	193.8	MRPW	35.023587	-116.498795	Wilhelm Wash-Mojave River	0.90	
D-13-22	R6	RIVERINE	0.002543	123.1	MRPW	35.023657	-116.498892	Wilhelm Wash-Mojave River	0.90	
D-13-23	R6	RIVERINE	0.004626	223.9	MRPW	35.023702	-116.498477	Wilhelm Wash-Mojave River	0.90	
D-13-24	R6	RIVERINE	0.003006	145.5	MRPW	35.023739	-116.498631	Wilhelm Wash-Mojave River	0.90	
D-13-25	R6	RIVERINE	0.004762	230.5	MRPW	35.023945	-116.497766	Wilhelm Wash-Mojave River	0.90	
D-13-26	R6	RIVERINE	0.004554	220.4	MRPW	35.024012	-116.497657	Wilhelm Wash-Mojave River	0.90	
D-13-27	R6	RIVERINE	0.004103	198.6	MRPW	35.023877	-116.498040	Wilhelm Wash-Mojave River	0.90	
D-13-28	R6	RIVERINE	0.003800	183.9	MRPW	35.024078	-116.497643	Wilhelm Wash-Mojave River	0.90	
D-13-29	R6	RIVERINE	0.004585	221.9	MRPW	35.024192	-116.497205	Wilhelm Wash-Mojave River	0.90	
D-13-30	R6	RIVERINE	0.004283	207.3	MRPW	35.024442	-116.496573	Wilhelm Wash-Mojave River	0.90	
D-13-31	R6	RIVERINE	0.004151	200.9	MRPW	35.024443	-116.496506	Wilhelm Wash-Mojave River	0.90	
D-13-32	R6	RIVERINE	0.005355	259.2	MRPW	35.025153	-116.494556	Wilhelm Wash-Mojave River	0.90	
D-13-34	R6	RIVERINE	0.006267	303.3	MRPW	35.025751	-116.492712	Wilhelm Wash-Mojave River	0.90	
D-13-35	R6	RIVERINE	0.007223	349.6	MRPW	35.025993	-116.492172	Wilhelm Wash-Mojave River	0.90	
D-13-36	R6	RIVERINE	0.003725	180.3	MRPW	35.026044	-116.492444	Wilhelm Wash-Mojave River	0.90	
D-13-37	R6	RIVERINE	0.007087	343.0	MRPW	35.026155	-116.491573	Wilhelm Wash-Mojave River	0.90	
D-13-38	R6	RIVERINE	0.008502	411.5	MRPW	35.026670	-116.490136	Wilhelm Wash-Mojave River	0.90	
D-13-39	R6	RIVERINE	0.009194	445.0	MRPW	35.026842	-116.489574	Wilhelm Wash-Mojave River	0.90	
D-13-42	R6	RIVERINE	0.041713	386.6	MRPW	35.027717	-116.487654	Wilhelm Wash-Mojave River	4.70	
D-13-43	R6	RIVERINE	0.004037	195.4	MRPW	35.027911	-116.487768	Wilhelm Wash-Mojave River	0.90	
D-13-44	R6	RIVERINE	0.005616	271.8	MRPW	35.027796	-116.486928	Wilhelm Wash-Mojave River	0.90	
D-13-45	R6	RIVERINE	0.012851	622.0	MRPW	35.028311	-116.486227	Wilhelm Wash-Mojave River	0.90	
D-13-47	R6	RIVERINE	0.004762	230.5	MRPW	35.028437	-116.486505	Wilhelm Wash-Mojave River	0.90	
D-13-48	R6	RIVERINE	0.009322	451.2	MRPW	35.028527	-116.485525	Wilhelm Wash-Mojave River	0.90	
D-13-49	R6	RIVERINE	0.009124	441.6	MRPW	35.028751	-116.485205	Wilhelm Wash-Mojave River	0.90	
D-13-50	R6	RIVERINE	0.009917	480.0	MRPW	35.029034	-116.484427	Wilhelm Wash-Mojave River	0.90	
D-13-51	R6	RIVERINE	0.010572	511.7	MRPW	35.029391	-116.483663	Wilhelm Wash-Mojave River	0.90	
D-13-52	R6	RIVERINE	0.005932	287.1	MRPW	35.029546	-116.482536	Wilhelm Wash-Mojave River	0.90	
D-13-54	R6	RIVERINE	0.017872	865.0	MRPW	35.030582	-116.480967	Wilhelm Wash-Mojave River	0.90	
D-13-55	R6	RIVERINE	0.004835	234.0	MRPW	35.030701	-116.481394	Wilhelm Wash-Mojave River	0.90	
D-13-56	R6	RIVERINE	0.005884	284.8	MRPW	35.030779	-116.481076	Wilhelm Wash-Mojave River	0.90	
D-13-57	R6	RIVERINE	0.007725	373.9	MRPW	35.030823	-116.480887	Wilhelm Wash-Mojave River	0.90	
D-13-58	R6	RIVERINE	0.008789	425.4	MRPW	35.030652	-116.479645	Wilhelm Wash-Mojave River	0.90	
D-13-59	R6	RIVERINE	0.003231	156.4	MRPW	35.031021	-116.480808	Wilhelm Wash-Mojave River	0.90	
D-13-60	R6	RIVERINE	0.011824	572.3	MRPW	35.031100	-116.479290	Wilhelm Wash-Mojave River	0.90	
D-13-61	R6	RIVERINE	0.005308	256.9	MRPW	35.030822	-116.479230	Wilhelm Wash-Mojave River	0.90	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-13-62	R6	RIVERINE	0.003983	192.8	MRPW	35.031422	-116.479727	Wilhelm Wash-Mojave River	0.90	
D-13-63	R6	RIVERINE	0.004711	228.0	MRPW	35.031471	-116.479527	Wilhelm Wash-Mojave River	0.90	
D-13-64	R6	RIVERINE	0.004496	217.6	MRPW	35.031181	-116.479120	Wilhelm Wash-Mojave River	0.90	
D-13-65	R6	RIVERINE	0.012021	581.8	MRPW	35.031252	-116.478648	Wilhelm Wash-Mojave River	0.90	
D-13-66	R6	RIVERINE	0.005570	269.6	MRPW	35.031522	-116.478525	Wilhelm Wash-Mojave River	0.90	
D-13-67	R6	RIVERINE	0.008455	409.2	MRPW	35.031676	-116.478498	Wilhelm Wash-Mojave River	0.90	
D-13-68	R6	RIVERINE	0.003682	178.2	MRPW	35.031865	-116.478467	Wilhelm Wash-Mojave River	0.90	
D-13-69	R6	RIVERINE	0.003273	158.4	MRPW	35.031697	-116.478544	Wilhelm Wash-Mojave River	0.90	
D-13-70	R6	RIVERINE	0.001068	51.7	MRPW	35.032149	-116.478626	Wilhelm Wash-Mojave River	0.90	
D-13-71	R6	RIVERINE	0.007777	376.4	MRPW	35.031286	-116.477647	Wilhelm Wash-Mojave River	0.90	
D-13-72	R6	RIVERINE	0.011992	580.4	MRPW	35.031904	-116.477454	Wilhelm Wash-Mojave River	0.90	
D-13-73	R6	RIVERINE	0.002917	141.2	MRPW	35.032447	-116.477669	Wilhelm Wash-Mojave River	0.90	
D-13-74	R6	RIVERINE	0.002165	104.8	MRPW	35.032482	-116.477725	Wilhelm Wash-Mojave River	0.90	
D-13-75	R6	RIVERINE	0.006919	334.9	MRPW	35.031688	-116.476984	Wilhelm Wash-Mojave River	0.90	
D-13-76	R6	RIVERINE	0.004062	196.6	MRPW	35.031559	-116.476710	Wilhelm Wash-Mojave River	0.90	
D-13-77	R6	RIVERINE	0.015138	732.7	MRPW	35.032189	-116.476729	Wilhelm Wash-Mojave River	0.90	
D-13-78	R6	RIVERINE	0.001870	90.5	MRPW	35.032119	-116.476248	Wilhelm Wash-Mojave River	0.90	
D-13-79	R6	RIVERINE	0.016198	784.0	MRPW	35.032473	-116.475960	Wilhelm Wash-Mojave River	0.90	
D-13-80	R6	RIVERINE	0.013651	660.7	MRPW	35.032368	-116.475428	Wilhelm Wash-Mojave River	0.90	
D-13-81	R6	RIVERINE	0.007457	360.9	MRPW	35.032538	-116.475341	Wilhelm Wash-Mojave River	0.90	
D-13-88	R6	RIVERINE	0.017994	870.9	MRPW	35.036164	-116.468498	Wilhelm Wash-Mojave River	0.90	
D-13-89	R6	RIVERINE	0.004849	234.7	MRPW	35.036515	-116.469132	Wilhelm Wash-Mojave River	0.90	
D-13-90	R6	RIVERINE	0.018847	541.5	MRPW	35.036611	-116.468213	Wilhelm Wash-Mojave River	1.50	
D-13-91	R6	RIVERINE	0.004198	203.2	MRPW	35.013532	-116.526796	Wilhelm Wash-Mojave River	0.90	
D-13-94	R6	RIVERINE	0.004293	207.8	MRPW	35.014703	-116.523559	Wilhelm Wash-Mojave River	0.90	
D-13-95	R6	RIVERINE	0.004221	204.3	MRPW	35.015443	-116.521485	Wilhelm Wash-Mojave River	0.90	
D-13-96	R6	RIVERINE	0.004467	216.2	MRPW	35.016293	-116.519092	Wilhelm Wash-Mojave River	0.90	
D-13-97	R6	RIVERINE	0.254649	443.7	MRPW	35.018105	-116.513559	Wilhelm Wash-Mojave River	25.00	M 4
D-13-98	R6	RIVERINE	0.084386	2625.6	MRPW	35.019844	-116.508405	Wilhelm Wash-Mojave River	1.40	13M11
D-13-101	R6	RIVERINE	0.030372	882.0	MRPW	35.021090	-116.505963	Wilhelm Wash-Mojave River	1.50	
D-13-103	R6	RIVERINE	0.368609	3416.3	MRPW	35.023268	-116.498930	Wilhelm Wash-Mojave River	4.70	
D-13-104	R6	RIVERINE	0.162121	353.1	MRPW	35.025239	-116.493820	Wilhelm Wash-Mojave River	20.00	
D-13-105	R6	RIVERINE	0.045843	1996.9	MRPW	35.026396	-116.489588	Wilhelm Wash-Mojave River	1.00	
D-13-107	R6	RIVERINE	0.028930	1400.2	MRPW	35.032491	-116.472671	Wilhelm Wash-Mojave River	0.90	
D-13-111	R6	RIVERINE	0.012191	123.5	MRPW	35.036050	-116.466510	Wilhelm Wash-Mojave River	4.30	
D-13-112	R6	RIVERINE	0.095859	3796.0	MRPW	35.029796	-116.480709	Wilhelm Wash-Mojave River	1.10	13D22
D-13-113	R6	RIVERINE	0.005012	242.6	MRPW	35.013407	-116.526987	Wilhelm Wash-Mojave River	0.90	
D-13-114	R6	RIVERINE	0.000540	58.8	MRPW	35.016080	-116.519211	Wilhelm Wash-Mojave River	0.40	13D15

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-13-115	R6	RIVERINE	0.000412	59.8	MRPW	35.016289	-116.518606	Wilhelm Wash-Mojave River	0.30	13D14
D-13-116	R6	RIVERINE	0.188405	4559.4	MRPW	35.015595	-116.520253	Wilhelm Wash-Mojave River	1.80	13M13
D-13-117	R6	RIVERINE	0.001836	133.3	MRPW	35.026878	-116.488028	Wilhelm Wash-Mojave River	0.60	13D5
D-13-118	R6	RIVERINE	0.057394	543.5	MRPW	35.027529	-116.487931	Wilhelm Wash-Mojave River	4.60	13MD7
D-13-119	R6	RIVERINE	0.001056	51.1	MRPW	35.027320	-116.486877	Wilhelm Wash-Mojave River	0.90	13D8
D-13-120	R6	RIVERINE	0.008124	393.2	MRPW	35.035484	-116.467367	Wilhelm Wash-Mojave River	0.90	
D-13-130	R6	RIVERINE	0.006607	479.7	MRPW	35.027106	-116.488838	Wilhelm Wash-Mojave River	0.60	13D10
D-13-131	R6	RIVERINE	0.003919	113.8	MRPW	35.021108	-116.504454	Wilhelm Wash-Mojave River	1.50	M 4A
D-13-132	R6	RIVERINE	0.002470	179.3	MRPW	35.018031	-116.512981	Wilhelm Wash-Mojave River	0.60	
D-13-133	R6	RIVERINE	0.003309	288.3	MRPW	35.018482	-116.512799	Wilhelm Wash-Mojave River	0.50	
D-14-1	R6	RIVERINE	0.016736	486.0	MRPW	35.036489	-116.466513	Afton Canyon-Mojave River	1.50	
D-14-2	R6	RIVERINE	0.027559	800.3	MRPW	35.036887	-116.466926	Afton Canyon-Mojave River	1.50	
D-14-3	R6	RIVERINE	0.022713	659.6	MRPW	35.037167	-116.466641	Afton Canyon-Mojave River	1.50	
D-14-4	R6	RIVERINE	0.010110	293.6	MRPW	35.037099	-116.465679	Afton Canyon-Mojave River	1.50	
D-14-5	R6	RIVERINE	0.003557	103.3	MRPW	35.036697	-116.465707	Afton Canyon-Mojave River	1.50	
D-14-6	R6	RIVERINE	0.014972	434.8	MRPW	35.037541	-116.465401	Afton Canyon-Mojave River	1.50	
D-14-7	R6	RIVERINE	0.016278	472.7	MRPW	35.037816	-116.465929	Afton Canyon-Mojave River	1.50	
D-14-8	R6	RIVERINE	0.006777	196.8	MRPW	35.038344	-116.465655	Afton Canyon-Mojave River	1.50	
D-14-9	R6	RIVERINE	0.025878	751.5	MRPW	35.038087	-116.465201	Afton Canyon-Mojave River	1.50	
D-14-10	R6	RIVERINE	0.017039	494.8	MRPW	35.038006	-116.464666	Afton Canyon-Mojave River	1.50	
D-14-11	R6	RIVERINE	0.011116	322.8	MRPW	35.038385	-116.464689	Afton Canyon-Mojave River	1.50	
D-14-12	R6	RIVERINE	0.014232	413.3	MRPW	35.038853	-116.464058	Afton Canyon-Mojave River	1.50	
D-14-13	R6	RIVERINE	0.009766	283.6	MRPW	35.039054	-116.464133	Afton Canyon-Mojave River	1.50	
D-14-14	R6	RIVERINE	0.008891	258.2	MRPW	35.039288	-116.463726	Afton Canyon-Mojave River	1.50	
D-14-20	R6	RIVERINE	0.014001	406.6	MRPW	35.041579	-116.459082	Afton Canyon-Mojave River	1.50	
D-14-21	R6	RIVERINE	0.013702	397.9	MRPW	35.042639	-116.457381	Afton Canyon-Mojave River	1.50	
D-14-24	R6	RIVERINE	0.003843	111.6	MRPW	35.047482	-116.450020	Afton Canyon-Mojave River	1.50	
D-14-25	R6	RIVERINE	0.002280	66.2	MRPW	35.047435	-116.450184	Afton Canyon-Mojave River	1.50	
D-14-26	R6	RIVERINE	0.004659	135.3	MRPW	35.047699	-116.449594	Afton Canyon-Mojave River	1.50	
D-14-28	R6	RIVERINE	0.007972	231.5	MRPW	35.048257	-116.448476	Afton Canyon-Mojave River	1.50	
D-14-29	R6	RIVERINE	0.007968	231.4	MRPW	35.049034	-116.447280	Afton Canyon-Mojave River	1.50	
D-14-30	R6	RIVERINE	0.008933	259.4	MRPW	35.049277	-116.446898	Afton Canyon-Mojave River	1.50	
D-14-31	R6	RIVERINE	0.008388	243.6	MRPW	35.049818	-116.446116	Afton Canyon-Mojave River	1.50	
D-14-32	R6	RIVERINE	0.004563	132.5	MRPW	35.049963	-116.446142	Afton Canyon-Mojave River	1.50	
D-14-33	R6	RIVERINE	0.009067	263.3	MRPW	35.050532	-116.444981	Afton Canyon-Mojave River	1.50	
D-14-34	R6	RIVERINE	0.007982	231.8	MRPW	35.050359	-116.445265	Afton Canyon-Mojave River	1.50	
D-14-36	R6	RIVERINE	0.050275	1095.0	MRPW	35.051123	-116.443471	Afton Canyon-Mojave River	2.00	
D-14-38	R6	RIVERINE	0.008006	232.5	MRPW	35.051287	-116.443837	Afton Canyon-Mojave River	1.50	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-14-39	R6	RIVERINE	0.008871	257.6	MRPW	35.051236	-116.443949	Afton Canyon-Mojave River	1.50			
D-14-45	R6	RIVERINE	0.008275	240.3	MRPW	35.054139	-116.439482	Afton Canyon-Mojave River	1.50			
D-14-46	R6	RIVERINE	0.008595	249.6	MRPW	35.054351	-116.439161	Afton Canyon-Mojave River	1.50			
D-14-47	R6	RIVERINE	0.004823	210.1	MRPW	35.054381	-116.438906	Afton Canyon-Mojave River	1.00	14D9		
D-14-48	R6	RIVERINE	0.008437	245.0	MRPW	35.054933	-116.438265	Afton Canyon-Mojave River	1.50			
D-14-49	R6	RIVERINE	0.005425	236.3	MRPW	35.055183	-116.437890	Afton Canyon-Mojave River	1.00	14D8		
D-14-50	R6	RIVERINE	0.008261	239.9	MRPW	35.055496	-116.437401	Afton Canyon-Mojave River	1.50			
D-14-51	R6	RIVERINE	0.009291	269.8	MRPW	35.055706	-116.437099	Afton Canyon-Mojave River	1.50			
D-14-54	R6	RIVERINE	0.011443	332.3	MRPW	35.056538	-116.435681	Afton Canyon-Mojave River	1.50			
D-14-55	R6	RIVERINE	0.010258	297.9	MRPW	35.056746	-116.435291	Afton Canyon-Mojave River	1.50			
D-14-68	R6	RIVERINE	0.007658	222.4	MRPW	35.060638	-116.429362	Afton Canyon-Mojave River	1.50			
D-14-69	R6	RIVERINE	0.003774	109.6	MRPW	35.060820	-116.428943	Afton Canyon-Mojave River	1.50			
D-14-70	R6	RIVERINE	0.003337	96.9	MRPW	35.061188	-116.428336	Afton Canyon-Mojave River	1.50			
D-14-71	R6	RIVERINE	0.006391	139.2	MRPW	35.062250	-116.426769	Afton Canyon-Mojave River	2.00	14D6		
D-14-72	R6	RIVERINE	0.001095	31.8	MRPW	35.062137	-116.426690	Afton Canyon-Mojave River	1.50			
D-14-73	R6	RIVERINE	0.005671	164.7	MRPW	35.063033	-116.425559	Afton Canyon-Mojave River	1.50			
D-14-74	R6	RIVERINE	0.006061	176.0	MRPW	35.063592	-116.424822	Afton Canyon-Mojave River	1.50			
D-14-75	R6	RIVERINE	0.199463	1930.8	MRPW	35.062171	-116.426548	Afton Canyon-Mojave River	4.50			
D-14-76	R6	RIVERINE	0.002066	60.0	MRPW	35.063590	-116.424273	Afton Canyon-Mojave River	1.50			
D-14-77	R6	RIVERINE	0.002565	74.5	MRPW	35.064045	-116.423877	Afton Canyon-Mojave River	1.50			
D-14-78	R6	RIVERINE	0.006632	192.6	MRPW	35.064249	-116.423650	Afton Canyon-Mojave River	1.50			
D-14-79	R6	RIVERINE	0.003647	105.9	MRPW	35.064818	-116.422813	Afton Canyon-Mojave River	1.50			
D-14-80	R6	RIVERINE	0.006019	131.1	MRPW	35.065750	-116.421464	Afton Canyon-Mojave River	2.00	14D24		
D-14-81	R6	RIVERINE	0.214874	2282.9	MRPW	35.065724	-116.421150	Afton Canyon-Mojave River	4.10	14D22		
D-14-82	R6	RIVERINE	0.006584	191.2	MRPW	35.066281	-116.420597	Afton Canyon-Mojave River	1.50			
D-14-83	R6	RIVERINE	0.005320	154.5	MRPW	35.066168	-116.420843	Afton Canyon-Mojave River	1.50			
D-14-84	R6	RIVERINE	0.006365	110.9	MRPW	35.065983	-116.421044	Afton Canyon-Mojave River	2.50	14D27		
D-14-85	R6	RIVERINE	0.001791	52.0	MRPW	35.065764	-116.421224	Afton Canyon-Mojave River	1.50			
D-14-86	R6	RIVERINE	0.003547	103.0	MRPW	35.066427	-116.420319	Afton Canyon-Mojave River	1.50			
D-14-87	R6	RIVERINE	0.002194	63.7	MRPW	35.066430	-116.420211	Afton Canyon-Mojave River	1.50			
D-14-88	R6	RIVERINE	0.004900	142.3	MRPW	35.067233	-116.419072	Afton Canyon-Mojave River	1.50			
D-14-89	R6	RIVERINE	0.001877	54.5	MRPW	35.067276	-116.418883	Afton Canyon-Mojave River	1.50			
D-14-90	R6	RIVERINE	0.003902	113.3	MRPW	35.067431	-116.418742	Afton Canyon-Mojave River	1.50			
D-14-91	R6	RIVERINE	0.015248	332.1	MRPW	35.068033	-116.417579	Afton Canyon-Mojave River	2.00			
D-14-92	R6	RIVERINE	0.007562	164.7	MRPW	35.067858	-116.417661	Afton Canyon-Mojave River	2.00			
D-14-93	R6	RIVERINE	0.000926	26.9	MRPW	35.069003	-116.417220	Afton Canyon-Mojave River	1.50			
D-14-94	R6	RIVERINE	0.001309	38.0	MRPW	35.069177	-116.416240	Afton Canyon-Mojave River	1.50			
D-14-100	R6	RIVERINE	0.009528	276.7	MRPW	35.072948	-116.411034	Afton Canyon-Mojave River	1.50			

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-14-102	R6	RIVERINE	0.011849	344.1	MRPW	35.075646	-116.406951	Afton Canyon-Mojave River	1.50			
D-14-103	R6	RIVERINE	0.008413	244.3	MRPW	35.075968	-116.406396	Afton Canyon-Mojave River	1.50			
D-14-104	R6	RIVERINE	0.009828	285.4	MRPW	35.076044	-116.406238	Afton Canyon-Mojave River	1.50			
D-14-105	R6	RIVERINE	0.009673	280.9	MRPW	35.076086	-116.406183	Afton Canyon-Mojave River	1.50			
D-14-106	R6	RIVERINE	0.012555	364.6	MRPW	35.076686	-116.405342	Afton Canyon-Mojave River	1.50			
D-14-107	R6	RIVERINE	0.0351058	3556.3	MRPW	35.074830	-116.407544	Afton Canyon-Mojave River	4.30			
D-14-108	R6	RIVERINE	0.010010	290.7	MRPW	35.057426	-116.434334	Afton Canyon-Mojave River	1.50			
D-14-109	R6	RIVERINE	0.101626	1029.5	MRPW	35.037034	-116.465001	Afton Canyon-Mojave River	4.30			
D-14-110	R6	RIVERINE	0.088476	963.5	MRPW	35.039032	-116.463450	Afton Canyon-Mojave River	4.00			
D-14-111	R6	RIVERINE	0.107342	1087.4	MRPW	35.038828	-116.462216	Afton Canyon-Mojave River	4.30	14M11		
D-14-112	R6	RIVERINE	0.097521	472.0	MRPW	35.044422	-116.454655	Afton Canyon-Mojave River	9.00			
D-14-113	R6	RIVERINE	0.074855	362.3	MRPW	35.044866	-116.454089	Afton Canyon-Mojave River	9.00			
D-14-114	R6	RIVERINE	0.039557	1723.1	MRPW	35.042683	-116.456327	Afton Canyon-Mojave River	1.00			
D-14-115	R6	RIVERINE	0.042562	1854.0	MRPW	35.045747	-116.451660	Afton Canyon-Mojave River	1.00	14D12		
D-14-116	R6	RIVERINE	0.071012	343.7	MRPW	35.047356	-116.449861	Afton Canyon-Mojave River	9.00			
D-14-117	R6	RIVERINE	0.061818	299.2	MRPW	35.047773	-116.449236	Afton Canyon-Mojave River	9.00			
D-14-118	R6	RIVERINE	0.040826	1616.7	MRPW	35.048837	-116.446963	Afton Canyon-Mojave River	1.10	14D13		
D-14-121	R6	RIVERINE	0.008757	254.3	MRPW	35.049248	-116.446939	Afton Canyon-Mojave River	1.50			
D-14-123	R6	RIVERINE	0.006897	200.3	MRPW	35.049327	-116.446949	Afton Canyon-Mojave River	1.50			
D-14-124	R6	RIVERINE	0.005186	150.6	MRPW	35.052548	-116.442237	Afton Canyon-Mojave River	1.50			
D-14-125	R6	RIVERINE	0.033483	291.7	MRPW	35.052282	-116.442174	Afton Canyon-Mojave River	5.00			
D-14-126	R6	RIVERINE	0.030073	262.0	MRPW	35.052238	-116.442420	Afton Canyon-Mojave River	5.00			
D-14-127	R6	RIVERINE	0.053180	463.3	MRPW	35.052701	-116.441705	Afton Canyon-Mojave River	5.00			
D-14-128	R6	RIVERINE	0.006322	183.6	MRPW	35.052555	-116.442102	Afton Canyon-Mojave River	1.50			
D-14-129	R6	RIVERINE	0.003678	106.8	MRPW	35.052836	-116.441832	Afton Canyon-Mojave River	1.50			
D-14-130	R6	RIVERINE	0.002986	86.7	MRPW	35.052887	-116.441803	Afton Canyon-Mojave River	1.50			
D-14-134	R6	RIVERINE	0.005410	157.1	MRPW	35.053867	-116.439613	Afton Canyon-Mojave River	1.50			
D-14-135	R6	RIVERINE	0.007469	216.9	MRPW	35.055076	-116.438003	Afton Canyon-Mojave River	1.50			
D-14-136	R6	RIVERINE	0.004098	178.5	MRPW	35.055286	-116.437914	Afton Canyon-Mojave River	1.00			
D-14-137	R6	RIVERINE	0.002103	91.6	MRPW	35.055286	-116.437825	Afton Canyon-Mojave River	1.00			
D-14-138	R6	RIVERINE	0.006243	181.3	MRPW	35.055179	-116.438076	Afton Canyon-Mojave River	1.50			
D-14-139	R6	RIVERINE	0.030682	297.0	MRPW	35.060292	-116.429901	Afton Canyon-Mojave River	4.50			
D-14-140	R6	RIVERINE	0.025723	249.0	MRPW	35.060279	-116.430409	Afton Canyon-Mojave River	4.50			
D-14-141	R6	RIVERINE	0.005375	156.1	MRPW	35.063002	-116.425692	Afton Canyon-Mojave River	1.50			
D-14-142	R6	RIVERINE	0.001942	56.4	MRPW	35.063047	-116.425343	Afton Canyon-Mojave River	1.50			
D-14-143	R6	RIVERINE	0.008037	233.4	MRPW	35.063353	-116.425106	Afton Canyon-Mojave River	1.50			
D-14-144	R6	RIVERINE	0.003712	107.8	MRPW	35.063765	-116.425279	Afton Canyon-Mojave River	1.50			
D-14-145	R6	RIVERINE	0.003254	94.5	MRPW	35.063673	-116.425491	Afton Canyon-Mojave River	1.50			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-14-146	R6	RIVERINE	0.003843	111.6	MRPW	35.063569	-116.425608	Afton Canyon-Mojave River	1.50	
D-14-147	R6	RIVERINE	0.004573	132.8	MRPW	35.064576	-116.424134	Afton Canyon-Mojave River	1.50	
D-14-148	R6	RIVERINE	0.003171	92.1	MRPW	35.064506	-116.424083	Afton Canyon-Mojave River	1.50	
D-14-149	R6	RIVERINE	0.001061	30.8	MRPW	35.064488	-116.424183	Afton Canyon-Mojave River	1.50	
D-14-150	R6	RIVERINE	0.002559	74.3	MRPW	35.064731	-116.422896	Afton Canyon-Mojave River	1.50	
D-14-151	R6	RIVERINE	0.007087	205.8	MRPW	35.065058	-116.422496	Afton Canyon-Mojave River	1.50	
D-14-154	R6	RIVERINE	0.000603	17.5	MRPW	35.066289	-116.420974	Afton Canyon-Mojave River	1.50	
D-14-155	R6	RIVERINE	0.001608	46.7	MRPW	35.066111	-116.421101	Afton Canyon-Mojave River	1.50	
D-14-156	R6	RIVERINE	0.003516	102.1	MRPW	35.066053	-116.421129	Afton Canyon-Mojave River	1.50	
D-14-157	R6	RIVERINE	0.012397	135.0	MRPW	35.066767	-116.419875	Afton Canyon-Mojave River	4.00	
D-14-158	R6	RIVERINE	0.010303	112.2	MRPW	35.066776	-116.419657	Afton Canyon-Mojave River	4.00	
D-14-159	R6	RIVERINE	0.005851	169.9	MRPW	35.066957	-116.419444	Afton Canyon-Mojave River	1.50	
D-14-160	R6	RIVERINE	0.003085	89.6	MRPW	35.067162	-116.419250	Afton Canyon-Mojave River	1.50	
D-14-161	R6	RIVERINE	0.007490	217.5	MRPW	35.067160	-116.419314	Afton Canyon-Mojave River	1.50	
D-14-162	R6	RIVERINE	0.002955	85.8	MRPW	35.067570	-116.419553	Afton Canyon-Mojave River	1.50	
D-14-166	R6	RIVERINE	0.003326	96.6	MRPW	35.067571	-116.418819	Afton Canyon-Mojave River	1.50	
D-14-167	R6	RIVERINE	0.002242	65.1	MRPW	35.067700	-116.418755	Afton Canyon-Mojave River	1.50	
D-14-168	R6	RIVERINE	0.009798	388.0	MRPW	35.068128	-116.418085	Afton Canyon-Mojave River	11.00	14M3
D-14-169	R6	RIVERINE	0.002397	69.6	MRPW	35.068464	-116.418216	Afton Canyon-Mojave River	1.50	
D-14-170	R6	RIVERINE	0.004904	142.4	MRPW	35.068364	-116.418313	Afton Canyon-Mojave River	1.50	
D-14-171	R6	RIVERINE	0.005826	169.2	MRPW	35.068583	-116.417993	Afton Canyon-Mojave River	1.50	
D-14-172	R6	RIVERINE	0.002679	77.8	MRPW	35.068575	-116.417926	Afton Canyon-Mojave River	1.50	
D-14-173	R6	RIVERINE	0.003123	90.7	MRPW	35.068898	-116.417488	Afton Canyon-Mojave River	1.50	14D2
D-14-174	R6	RIVERINE	0.002256	65.5	MRPW	35.068982	-116.417472	Afton Canyon-Mojave River	1.50	
D-14-175	R6	RIVERINE	0.004118	89.7	MRPW	35.068945	-116.416742	Afton Canyon-Mojave River	2.00	14D1
D-14-176	R6	RIVERINE	0.185158	1613.1	MRPW	35.069259	-116.416020	Afton Canyon-Mojave River	5.00	
D-14-178	R6	RIVERINE	0.002565	74.5	MRPW	35.072804	-116.410845	Afton Canyon-Mojave River	1.50	
D-14-179	R6	RIVERINE	0.002607	75.7	MRPW	35.073098	-116.410264	Afton Canyon-Mojave River	1.50	
D-14-180	R6	RIVERINE	0.004056	117.8	MRPW	35.073273	-116.410051	Afton Canyon-Mojave River	1.50	
D-14-181	R6	RIVERINE	0.002590	75.2	MRPW	35.073400	-116.409829	Afton Canyon-Mojave River	1.50	
D-14-182	R6	RIVERINE	0.002221	64.5	MRPW	35.073571	-116.409602	Afton Canyon-Mojave River	1.50	
D-14-183	R6	RIVERINE	0.002042	59.3	MRPW	35.073600	-116.409544	Afton Canyon-Mojave River	1.50	
D-14-184	R6	RIVERINE	0.002025	58.8	MRPW	35.073687	-116.409405	Afton Canyon-Mojave River	1.50	
D-14-186	R6	RIVERINE	0.011333	329.1	MRPW	35.076839	-116.405097	Afton Canyon-Mojave River	1.50	
D-14-188	R6	RIVERINE	0.016676	181.6	MRPW	35.067229	-116.420085	Afton Canyon-Mojave River	4.00	14MD4
D-14-189	R6	RIVERINE	0.005822	63.4	MRPW	35.067111	-116.420322	Afton Canyon-Mojave River	4.00	
D-14-190	R6	RIVERINE	0.002841	82.5	MRPW	35.066789	-116.420753	Afton Canyon-Mojave River	1.50	
D-14-191	R6	RIVERINE	0.003020	87.7	MRPW	35.066568	-116.421073	Afton Canyon-Mojave River	1.50	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-14-192	R6	RIVERINE	0.002920	84.8	MRPW	35.066354	-116.421402	Afton Canyon-Mojave River	1.50			
D-14-193	R6	RIVERINE	0.004239	123.1	MRPW	35.066061	-116.421834	Afton Canyon-Mojave River	1.50			
D-14-194	R6	RIVERINE	0.003302	95.9	MRPW	35.065975	-116.421952	Afton Canyon-Mojave River	1.50			
D-14-195	R6	RIVERINE	0.004514	131.1	MRPW	35.065665	-116.422414	Afton Canyon-Mojave River	1.50			
D-14-196	R6	RIVERINE	0.004074	118.3	MRPW	35.065388	-116.422925	Afton Canyon-Mojave River	1.50			
D-14-197	R6	RIVERINE	0.007738	224.7	MRPW	35.065015	-116.423432	Afton Canyon-Mojave River	1.50			
D-14-198	R6	RIVERINE	0.034339	332.4	MRPW	35.058508	-116.432627	Afton Canyon-Mojave River	4.50			
D-14-201	R6	RIVERINE	0.189403	1918.7	MRPW	35.053733	-116.439464	Afton Canyon-Mojave River	4.30			
D-14-202	R6	RIVERINE	0.025606	185.9	MRPW	35.063925	-116.424115	Afton Canyon-Mojave River	6.00			
D-14-203	R6	RIVERINE	0.010455	75.9	MRPW	35.064292	-116.424537	Afton Canyon-Mojave River	6.00			
D-14-204	R6	RIVERINE	0.010289	149.4	MRPW	35.065481	-116.421856	Afton Canyon-Mojave River	3.00	14MD5		
D-14-205	R6	RIVERINE	0.000720	20.9	MRPW	35.066054	-116.422034	Afton Canyon-Mojave River	1.50			
D-14-206	R6	RIVERINE	0.003196	92.8	MRPW	35.067889	-116.419042	Afton Canyon-Mojave River	1.50			
D-14-207	R6	RIVERINE	0.003623	105.2	MRPW	35.068002	-116.418808	Afton Canyon-Mojave River	1.50			
D-14-208	R6	RIVERINE	0.001508	43.8	MRPW	35.068129	-116.418569	Afton Canyon-Mojave River	1.50			
D-14-209	R6	RIVERINE	0.013660	396.7	MRPW	35.075299	-116.407486	Afton Canyon-Mojave River	1.50			
D-14-210	R6	RIVERINE	0.006112	177.5	MRPW	35.049075	-116.447506	Afton Canyon-Mojave River	1.50			
D-14-211	R6	RIVERINE	0.058822	284.7	MRPW	35.047529	-116.449467	Afton Canyon-Mojave River	9.00			
D-14-212	R6	RIVERINE	0.020138	438.6	MRPW	35.069541	-116.416427	Afton Canyon-Mojave River	2.00			
D-14-213	R6	RIVERINE	0.003113	90.4	MRPW	35.068505	-116.417409	Afton Canyon-Mojave River	1.50			
D-14-220	R6	RIVERINE	0.005865	255.5	MRPW	35.048541	-116.448018	Afton Canyon-Mojave River	1.00	14D16		
D-14-221	R6	RIVERINE	0.016116	117.0	MRPW	35.048901	-116.447160	Afton Canyon-Mojave River	6.00	14D19		
D-14-222	R6	RIVERINE	0.011368	247.6	MRPW	35.049108	-116.447230	Afton Canyon-Mojave River	2.00	14D20		
D-15-3	R6	RIVERINE	0.020560	447.8	MRPW	35.080055	-116.393740	West Cronise Lake	2.00	15D7		
D-15-4	R6	RIVERINE	0.005505	119.9	MRPW	35.082339	-116.381705	West Cronise Lake	2.00			
D-15-5	R6	RIVERINE	0.016579	361.1	MRPW	35.082677	-116.381500	West Cronise Lake	2.00			
D-15-6	R6	RIVERINE	0.012600	365.9	MRPW	35.084724	-116.373519	West Cronise Lake	1.50			
D-15-14	R6	RIVERINE	0.576540	2283.1	MRPW	35.079792	-116.389783	West Cronise Lake	11.00	15M6		
D-15-15	R6	RIVERINE	0.278813	1104.1	MRPW	35.081422	-116.384496	West Cronise Lake	11.00			
D-15-16	R6	RIVERINE	0.018785	190.3	MRPW	35.082702	-116.381960	West Cronise Lake	4.30			
D-15-17	R6	RIVERINE	0.029601	429.8	MRPW	35.085203	-116.369912	West Cronise Lake	3.00			
D-15-20	R6	RIVERINE	0.037163	539.6	MRPW	35.087487	-116.350494	West Cronise Lake	3.00			
D-15-25	R6	RIVERINE	0.046303	916.8	MRPW	35.087217	-116.353494	West Cronise Lake	2.20	15D2		
D-15-26	R6	RIVERINE	0.005199	323.5	MRPW	35.086869	-116.356335	West Cronise Lake	0.70	15D4		
D-15-27	R6	RIVERINE	0.032121	1399.2	MRPW	35.087137	-116.352864	West Cronise Lake	1.00	15D1		
D-15-30	R6	RIVERINE	0.013987	435.2	MRPW	35.086143	-116.360538	West Cronise Lake	1.40	15D9		
D-15-31	R6	RIVERINE	0.004464	388.9	MRPW	35.086037	-116.362012	West Cronise Lake	0.50	15D8		
D-15-32	R6	RIVERINE	0.014075	613.1	MRPW	35.086438	-116.358864	West Cronise Lake	1.00			

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D-16-3	R6	RIVERINE	0.308375	2238.8	MRPW	35.087308	-116.328954	East Cronise Lake	6.00	
D-16-8	R6	RIVERINE	0.031074	225.6	MRPW	35.088056	-116.323543	East Cronise Lake	6.00	
D-16-9	R6	RIVERINE	0.051791	376.0	MRPW	35.088594	-116.321697	East Cronise Lake	6.00	
D-16-10	R6	RIVERINE	0.004355	158.1	MRPW	35.088126	-116.321878	East Cronise Lake	1.20	
D-16-12	R6	RIVERINE	0.098650	716.2	MRPW	35.089099	-116.318764	East Cronise Lake	6.00	
D-16-26	R6	RIVERINE	0.005190	188.4	MRPW	35.120186	-116.233914	East Cronise Lake	1.20	
D-16-27	R6	RIVERINE	0.010614	385.3	MRPW	35.120874	-116.232192	East Cronise Lake	1.20	
D-16-29	R6	RIVERINE	0.010295	373.7	MRPW	35.121001	-116.231846	East Cronise Lake	1.20	
D-16-30	R6	RIVERINE	0.013036	473.2	MRPW	35.120887	-116.231600	East Cronise Lake	1.20	
D-16-34	R6	RIVERINE	0.007978	289.6	MRPW	35.122206	-116.229919	East Cronise Lake	1.20	
D-16-35	R6	RIVERINE	0.008890	322.7	MRPW	35.123113	-116.228288	East Cronise Lake	1.20	
D-16-36	R6	RIVERINE	0.008240	299.1	MRPW	35.123347	-116.227944	East Cronise Lake	1.20	
D-16-38	R6	RIVERINE	0.004135	150.1	MRPW	35.124007	-116.227366	East Cronise Lake	1.20	
D-16-39	R6	RIVERINE	0.005749	208.7	MRPW	35.124208	-116.226853	East Cronise Lake	1.20	
D-16-40	R6	RIVERINE	0.003639	132.1	MRPW	35.124288	-116.226811	East Cronise Lake	1.20	
D-16-41	R6	RIVERINE	0.011609	421.4	MRPW	35.124420	-116.226235	East Cronise Lake	1.20	
D-16-43	R6	RIVERINE	0.007094	257.5	MRPW	35.124500	-116.225879	East Cronise Lake	1.20	
D-16-44	R6	RIVERINE	0.011584	420.5	MRPW	35.124260	-116.225719	East Cronise Lake	1.20	
D-16-45	R6	RIVERINE	0.003003	109.0	MRPW	35.124715	-116.225750	East Cronise Lake	1.20	
D-16-46	R6	RIVERINE	0.006901	300.6	MRPW	35.124744	-116.225552	East Cronise Lake	1.00	16D5
D-16-47	R6	RIVERINE	0.006700	243.2	MRPW	35.124855	-116.225268	East Cronise Lake	1.20	
D-16-48	R6	RIVERINE	0.002410	87.5	MRPW	35.124899	-116.225306	East Cronise Lake	1.20	
D-16-49	R6	RIVERINE	0.008375	182.4	MRPW	35.127697	-116.220989	East Cronise Lake	2.00	16D4
D-16-50	R6	RIVERINE	0.022466	163.1	MRPW	35.130335	-116.216740	East Cronise Lake	6.00	16MD2
D-16-51	R6	RIVERINE	0.029697	215.6	MRPW	35.130699	-116.216277	East Cronise Lake	6.00	
D-16-52	R6	RIVERINE	0.007253	263.3	MRPW	35.130906	-116.216031	East Cronise Lake	1.20	
D-16-57	R6	RIVERINE	0.007642	277.4	MRPW	35.131563	-116.215094	East Cronise Lake	1.20	
D-16-60	R6	RIVERINE	0.005226	189.7	MRPW	35.132735	-116.213883	East Cronise Lake	1.20	
D-16-61	R6	RIVERINE	0.003515	127.6	MRPW	35.132458	-116.213976	East Cronise Lake	1.20	
D-16-62	R6	RIVERINE	0.001818	66.0	MRPW	35.136610	-116.210496	East Cronise Lake	1.20	
D-16-63	R6	RIVERINE	0.004201	152.5	MRPW	35.137105	-116.209893	East Cronise Lake	1.20	
D-16-64	R6	RIVERINE	0.004537	164.7	MRPW	35.137202	-116.209784	East Cronise Lake	1.20	
D-16-65	R6	RIVERINE	0.003700	134.3	MRPW	35.137659	-116.209481	East Cronise Lake	1.20	
D-16-73	R6	RIVERINE	0.266185	773.0	MRPW	35.088073	-116.324246	East Cronise Lake	15.00	
D-16-74	R6	RIVERINE	0.086515	628.1	MRPW	35.089766	-116.317350	East Cronise Lake	6.00	
D-16-75	R6	RIVERINE	0.011077	402.1	MRPW	35.089117	-116.317912	East Cronise Lake	1.20	
D-16-76	R6	RIVERINE	0.167507	1216.1	MRPW	35.089695	-116.316028	East Cronise Lake	6.00	
D-16-77	R6	RIVERINE	0.075399	547.4	MRPW	35.094614	-116.305372	East Cronise Lake	6.00	

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D-16-78	R6	RIVERINE	0.189187	1373.5	MRPW	35.096228	-116.301409	East Cronise Lake	6.00	
D-16-80	R6	RIVERINE	0.049187	357.1	MRPW	35.097241	-116.298068	East Cronise Lake	6.00	
D-16-83	R6	RIVERINE	0.425895	309.2	MRPW	35.100815	-116.271122	East Cronise Lake	60.00	
D-16-84	R6	RIVERINE	0.043581	316.4	MRPW	35.104924	-116.259906	East Cronise Lake	6.00	
D-16-85	R6	RIVERINE	0.060289	437.7	MRPW	35.105716	-116.258670	East Cronise Lake	6.00	
D-16-86	R6	RIVERINE	0.070468	383.7	MRPW	35.110021	-116.250986	East Cronise Lake	8.00	
D-16-87	R6	RIVERINE	0.105482	765.8	MRPW	35.119881	-116.233740	East Cronise Lake	6.00	
D-16-88	R6	RIVERINE	0.003840	139.4	MRPW	35.120302	-116.232358	East Cronise Lake	1.20	
D-16-89	R6	RIVERINE	0.070702	513.3	MRPW	35.123818	-116.227118	East Cronise Lake	6.00	
D-16-90	R6	RIVERINE	0.005950	216.0	MRPW	35.128086	-116.220242	East Cronise Lake	1.20	
D-16-91	R6	RIVERINE	0.003868	140.4	MRPW	35.128181	-116.220326	East Cronise Lake	1.20	
D-16-92	R6	RIVERINE	0.022300	161.9	MRPW	35.128520	-116.219613	East Cronise Lake	6.00	
D-16-93	R6	RIVERINE	0.009421	68.4	MRPW	35.128018	-116.219431	East Cronise Lake	6.00	
D-16-96	R6	RIVERINE	0.463813	1836.7	MRPW	35.131304	-116.214935	East Cronise Lake	11.00	16M3
D-16-97	R6	RIVERINE	0.009077	65.9	MRPW	35.133140	-116.213608	East Cronise Lake	6.00	
D-16-98	R6	RIVERINE	0.034256	248.7	MRPW	35.132005	-116.214561	East Cronise Lake	6.00	
D-16-99	R6	RIVERINE	0.036364	264.0	MRPW	35.131763	-116.214852	East Cronise Lake	6.00	
D-16-102	R6	RIVERINE	0.029284	212.6	MRPW	35.131145	-116.215601	East Cronise Lake	6.00	
D-16-104	R6	RIVERINE	0.003537	128.4	MRPW	35.136957	-116.210064	East Cronise Lake	1.20	
D-16-106	R6	RIVERINE	0.246389	975.7	MRPW	35.137069	-116.209543	East Cronise Lake	11.00	16M1
D-16-107	R6	RIVERINE	0.001901	13.8	MRPW	35.136380	-116.210813	East Cronise Lake	6.00	
D-16-110	R6	RIVERINE	0.005832	362.9	MRPW	35.109125	-116.252681	East Cronise Lake	0.70	16D7
D-16-111	R6	RIVERINE	0.004341	189.1	MRPW	35.110167	-116.250391	East Cronise Lake	1.00	16D9
D-16-113	R6	RIVERINE	0.006110	221.8	MRPW	35.137462	-116.209450	East Cronise Lake	1.20	
D-16-120	R6	RIVERINE	0.057796	314.7	MRPW	35.105814	-116.258345	East Cronise Lake	8.00	16MD11
D-16-121	R6	RIVERINE	0.004734	412.4	MRPW	35.105518	-116.258949	East Cronise Lake	0.50	16D10
D-17-1	R6	RIVERINE	0.006608	151.5	MRPW	35.138581	-116.208137	180902082502	1.90	
D-17-2	R6	RIVERINE	0.005461	125.2	MRPW	35.138711	-116.208154	180902082502	1.90	
D-17-3	R6	RIVERINE	0.005417	124.2	MRPW	35.138743	-116.207956	180902082502	1.90	
D-17-4	R6	RIVERINE	0.011524	264.2	MRPW	35.139092	-116.207857	180902082502	1.90	
D-17-5	R6	RIVERINE	0.009496	217.7	MRPW	35.139320	-116.207592	180902082502	1.90	
D-17-6	R6	RIVERINE	0.010569	242.3	MRPW	35.139458	-116.207741	180902082502	1.90	
D-17-7	R6	RIVERINE	0.001762	40.4	MRPW	35.139501	-116.207774	180902082502	1.90	
D-17-8	R6	RIVERINE	0.009526	218.4	MRPW	35.139650	-116.207273	180902082502	1.90	
D-17-9	R6	RIVERINE	0.010023	229.8	MRPW	35.139876	-116.207075	180902082502	1.90	
D-17-10	R6	RIVERINE	0.007781	178.4	MRPW	35.139997	-116.206945	180902082502	1.90	
D-17-11	R6	RIVERINE	0.004008	91.9	MRPW	35.140054	-116.207028	180902082502	1.90	
D-17-12	R6	RIVERINE	0.006704	153.7	MRPW	35.140380	-116.206499	180902082502	1.90	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-17-13	R6	RIVERINE	0.002831	64.9	MRPW	35.140769	-116.206574	180902082502	1.90	
D-17-14	R6	RIVERINE	0.010630	243.7	MRPW	35.140879	-116.206223	180902082502	1.90	
D-17-15	R6	RIVERINE	0.003974	91.1	MRPW	35.140973	-116.206319	180902082502	1.90	
D-17-16	R6	RIVERINE	0.008881	257.9	MRPW	35.141207	-116.205771	180902082502	1.50	17D2
D-17-17	R6	RIVERINE	0.010743	246.3	MRPW	35.141413	-116.205624	180902082502	1.90	
D-17-18	R6	RIVERINE	0.012039	276.0	MRPW	35.141750	-116.205364	180902082502	1.90	
D-17-19	R6	RIVERINE	0.006473	148.4	MRPW	35.141884	-116.205361	180902082502	1.90	
D-17-20	R6	RIVERINE	0.005090	116.7	MRPW	35.142002	-116.204833	180902082502	1.90	
D-17-21	R6	RIVERINE	0.012548	273.3	MRPW	35.142337	-116.204850	180902082502	2.00	17D3
D-17-22	R6	RIVERINE	0.009631	220.8	MRPW	35.142547	-116.204597	180902082502	1.90	
D-17-23	R6	RIVERINE	0.005551	120.9	MRPW	35.142483	-116.204863	180902082502	2.00	
D-17-24	R6	RIVERINE	0.013173	302.0	MRPW	35.142806	-116.204310	180902082502	1.90	
D-17-25	R6	RIVERINE	0.030644	242.7	MRPW	35.143183	-116.204035	180902082502	5.50	
D-17-26	R6	RIVERINE	0.023687	187.6	MRPW	35.143349	-116.203911	180902082502	5.50	17MD4
D-17-27	R6	RIVERINE	0.016048	127.1	MRPW	35.143563	-116.203894	180902082502	5.50	
D-17-28	R6	RIVERINE	0.017866	141.5	MRPW	35.143732	-116.203827	180902082502	5.50	
D-17-29	R6	RIVERINE	0.008972	205.7	MRPW	35.144014	-116.203218	180902082502	1.90	
D-17-30	R6	RIVERINE	0.010854	236.4	MRPW	35.144351	-116.202958	180902082502	2.00	17D22
D-17-31	R6	RIVERINE	0.004218	122.5	MRPW	35.144508	-116.202604	180902082502	1.50	17D24
D-17-32	R6	RIVERINE	0.007289	167.1	MRPW	35.144908	-116.202367	180902082502	1.90	
D-17-33	R6	RIVERINE	0.002290	52.5	MRPW	35.144892	-116.202776	180902082502	1.90	
D-17-34	R6	RIVERINE	0.007552	219.3	MRPW	35.145176	-116.202167	180902082502	1.50	17D7
D-17-35	R6	RIVERINE	0.009264	212.4	MRPW	35.145490	-116.201892	180902082502	1.90	
D-17-36	R6	RIVERINE	0.009369	214.8	MRPW	35.145618	-116.201786	180902082502	1.90	
D-17-37	R6	RIVERINE	0.009413	215.8	MRPW	35.145763	-116.201671	180902082502	1.90	
D-17-38	R6	RIVERINE	0.003865	88.6	MRPW	35.145757	-116.201792	180902082502	1.90	
D-17-39	R6	RIVERINE	0.007764	178.0	MRPW	35.146110	-116.201251	180902082502	1.90	
D-17-40	R6	RIVERINE	0.008758	200.8	MRPW	35.147123	-116.200337	180902082502	1.90	
D-17-41	R6	RIVERINE	0.008335	191.1	MRPW	35.147293	-116.200171	180902082502	1.90	
D-17-42	R6	RIVERINE	0.007764	178.0	MRPW	35.147983	-116.199528	180902082502	1.90	
D-17-43	R6	RIVERINE	0.006674	153.0	MRPW	35.148092	-116.199397	180902082502	1.90	
D-17-44	R6	RIVERINE	0.006953	159.4	MRPW	35.148141	-116.199336	180902082502	1.90	
D-17-45	R6	RIVERINE	0.010015	229.6	MRPW	35.148460	-116.199206	180902082502	1.90	
D-17-46	R6	RIVERINE	0.008711	199.7	MRPW	35.148621	-116.198979	180902082502	1.90	
D-17-47	R6	RIVERINE	0.005090	116.7	MRPW	35.148659	-116.198783	180902082502	1.90	
D-17-48	R6	RIVERINE	0.006918	158.6	MRPW	35.148969	-116.198608	180902082502	1.90	
D-17-49	R6	RIVERINE	0.006425	147.3	MRPW	35.149035	-116.198479	180902082502	1.90	
D-17-50	R6	RIVERINE	0.008649	198.3	MRPW	35.149450	-116.198238	180902082502	1.90	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-17-51	R6	RIVERINE	0.011114	254.8	MRPW	35.149813	-116.197938	180902082502	1.90			
D-17-52	R6	RIVERINE	0.009212	211.2	MRPW	35.150078	-116.197663	180902082502	1.90			
D-17-53	R6	RIVERINE	0.007546	173.0	MRPW	35.150167	-116.197610	180902082502	1.90			
D-17-54	R6	RIVERINE	0.006621	151.8	MRPW	35.150251	-116.197498	180902082502	1.90			
D-17-55	R6	RIVERINE	0.009212	211.2	MRPW	35.150333	-116.197374	180902082502	1.90			
D-17-56	R6	RIVERINE	0.009526	218.4	MRPW	35.150805	-116.197028	180902082502	1.90			
D-17-57	R6	RIVERINE	0.009609	220.3	MRPW	35.150950	-116.196875	180902082502	1.90			
D-17-58	R6	RIVERINE	0.001815	41.6	MRPW	35.150960	-116.196726	180902082502	1.90			
D-17-59	R6	RIVERINE	0.009452	216.7	MRPW	35.151307	-116.196554	180902082502	1.90			
D-17-60	R6	RIVERINE	0.010041	230.2	MRPW	35.151655	-116.196238	180902082502	1.90			
D-17-61	R6	RIVERINE	0.009430	216.2	MRPW	35.151817	-116.196050	180902082502	1.90			
D-17-62	R6	RIVERINE	0.011189	232.1	MRPW	35.153218	-116.194782	180902082502	2.10	17D14		
D-17-63	R6	RIVERINE	0.012545	287.6	MRPW	35.153370	-116.194605	180902082502	1.90			
D-17-64	R6	RIVERINE	0.013455	244.2	MRPW	35.153914	-116.194101	180902082502	2.40	17D13		
D-17-65	R6	RIVERINE	0.045238	226.5	MRPW	35.154402	-116.193696	180902082502	8.70			
D-17-66	R6	RIVERINE	0.036410	182.3	MRPW	35.154527	-116.193748	180902082502	8.70			
D-17-67	R6	RIVERINE	0.022669	113.5	MRPW	35.154603	-116.193695	180902082502	8.70			
D-17-68	R6	RIVERINE	0.013024	298.6	MRPW	35.154881	-116.193189	180902082502	1.90			
D-17-69	R6	RIVERINE	0.007406	169.8	MRPW	35.154950	-116.193265	180902082502	1.90			
D-17-70	R6	RIVERINE	0.007480	171.5	MRPW	35.155130	-116.193263	180902082502	1.90			
D-17-71	R6	RIVERINE	0.047714	238.9	MRPW	35.155587	-116.192557	180902082502	8.70			
D-17-72	R6	RIVERINE	0.037562	272.7	MRPW	35.155925	-116.192298	180902082502	6.00	17MD10		
D-17-73	R6	RIVERINE	0.013229	303.3	MRPW	35.156195	-116.191994	180902082502	1.90			
D-17-74	R6	RIVERINE	0.007459	171.0	MRPW	35.156407	-116.191904	180902082502	1.90			
D-17-75	R6	RIVERINE	0.007036	161.3	MRPW	35.156304	-116.192048	180902082502	1.90			
D-17-76	R6	RIVERINE	0.011441	262.3	MRPW	35.156606	-116.191538	180902082502	1.90			
D-17-77	R6	RIVERINE	0.093182	246.0	MRPW	35.157074	-116.191229	180902082502	16.50	17MD9		
D-17-78	R6	RIVERINE	0.041882	209.7	MRPW	35.157407	-116.190932	180902082502	8.70			
D-17-79	R6	RIVERINE	0.009278	212.7	MRPW	35.157533	-116.190795	180902082502	1.90			
D-17-80	R6	RIVERINE	0.015266	350.0	MRPW	35.157839	-116.190422	180902082502	1.90			
D-17-81	R6	RIVERINE	0.012239	280.6	MRPW	35.157937	-116.190509	180902082502	1.90			
D-17-82	R6	RIVERINE	0.009962	228.4	MRPW	35.158088	-116.190327	180902082502	1.90			
D-17-83	R6	RIVERINE	0.038787	194.2	MRPW	35.158180	-116.190227	180902082502	8.70			
D-17-84	R6	RIVERINE	0.009182	210.5	MRPW	35.159206	-116.189242	180902082502	1.90			
D-17-85	R6	RIVERINE	0.007773	178.2	MRPW	35.159667	-116.188944	180902082502	1.90			
D-17-86	R6	RIVERINE	0.012353	283.2	MRPW	35.160137	-116.188538	180902082502	1.90			
D-17-87	R6	RIVERINE	0.014481	332.0	MRPW	35.160974	-116.187798	180902082502	1.90			
D-17-88	R6	RIVERINE	0.003415	78.3	MRPW	35.161337	-116.186968	180902082502	1.90			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point
D-17-89	R6	RIVERINE	0.015066	345.4	MRPW	35.161951	-116.186672	180902082502	1.90	
D-17-90	R6	RIVERINE	0.016095	369.0	MRPW	35.163016	-116.185654	180902082502	1.90	
D-17-91	R6	RIVERINE	0.013391	307.0	MRPW	35.163717	-116.185157	180902082502	1.90	
D-17-93	R6	RIVERINE	0.013740	315.0	MRPW	35.164237	-116.184575	180902082502	1.90	
D-17-95	R6	RIVERINE	0.012562	288.0	MRPW	35.164851	-116.184109	180902082502	1.90	
D-17-96	R6	RIVERINE	0.000095	2.3	MRPW	35.165868	-116.182646	180902082502	1.80	
D-17-97	R6	RIVERINE	0.000058	1.4	MRPW	35.166016	-116.182508	180902082502	1.80	
D-17-98	R6	RIVERINE	0.211917	8391.9	MRPW	35.147355	-116.199699	180902082502	1.10	17M5
D-17-99	R6	RIVERINE	0.054365	272.2	MRPW	35.155154	-116.192876	180902082502	8.70	
D-17-100	R6	RIVERINE	0.041043	205.5	MRPW	35.147853	-116.199669	180902082502	8.70	
D-17-101	R6	RIVERINE	0.010028	218.4	MRPW	35.144775	-116.202584	180902082502	2.00	17MD6
D-17-102	R6	RIVERINE	0.013315	58.0	MRPW	35.143024	-116.203530	180902082502	10.00	17MD18
D-17-103	R6	RIVERINE	0.026107	874.8	MRPW	35.166247	-116.182281	180902082502	1.30	17D27
D-17-104	R6	RIVERINE	0.960581	3803.9	MRPW	35.160981	-116.187131	180902082502	11.00	
D-17-105	R6	RIVERINE	0.278861	233.6	MRPW	35.157208	-116.191002	180902082502	52.00	17MD8
D-17-106	R6	RIVERINE	0.051110	255.9	MRPW	35.158782	-116.189654	180902082502	8.70	
D-17-107	R6	RIVERINE	0.045577	228.2	MRPW	35.159719	-116.188770	180902082502	8.70	
D-17-108	R6	RIVERINE	0.043180	216.2	MRPW	35.161345	-116.187244	180902082502	8.70	
D-17-109	R6	RIVERINE	0.054025	270.5	MRPW	35.161171	-116.187495	180902082502	8.70	
D-17-110	R6	RIVERINE	0.052767	264.2	MRPW	35.165117	-116.183697	180902082502	8.70	
D-17-111	R6	RIVERINE	0.052707	263.9	MRPW	35.164720	-116.184234	180902082502	8.70	
D-17-112	R6	RIVERINE	0.073798	369.5	MRPW	35.163280	-116.185584	180902082502	8.70	
D-17-113	R6	RIVERINE	0.018354	266.5	MRPW	35.140668	-116.206320	180902082502	3.00	17MD1
D-17-114	R6	RIVERINE	0.020213	293.5	MRPW	35.140561	-116.206453	180902082502	3.00	
D-17-115	R6	RIVERINE	0.009936	227.8	MRPW	35.146660	-116.200651	180902082502	1.90	
D-17-116	R6	RIVERINE	0.009526	218.4	MRPW	35.152243	-116.195658	180902082502	1.90	
D-17-117	R6	RIVERINE	0.009245	236.9	MRPW	35.153023	-116.194965	180902082502	1.70	17D15
D-17-118	R6	RIVERINE	0.009775	224.1	MRPW	35.153646	-116.194393	180902082502	1.90	
D-17-119	R6	RIVERINE	0.007210	165.3	MRPW	35.153534	-116.194626	180902082502	1.90	
D-17-120	R6	RIVERINE	0.013670	258.9	MRPW	35.154044	-116.194006	180902082502	2.30	17D12
D-17-121	R6	RIVERINE	0.058636	232.2	MRPW	35.154620	-116.193460	180902082502	11.00	17MD11
D-17-122	R6	RIVERINE	0.012959	297.1	MRPW	35.162526	-116.186212	180902082502	1.90	
D-17-123	R6	RIVERINE	0.010447	239.5	MRPW	35.162355	-116.186468	180902082502	1.90	
D-17-124	R6	RIVERINE	0.014385	329.8	MRPW	35.162159	-116.186393	180902082502	1.90	
D-17-125	R6	RIVERINE	0.006216	142.5	MRPW	35.164879	-116.184186	180902082502	1.90	
D-17-130	R6	RIVERINE	0.018382	266.9	MRPW	35.152665	-116.195285	180902082502	3.00	17D17
D-18-2	R6	RIVERINE	0.012649	306.1	MRPW	35.165816	-116.183148	180902082504	1.80	
D-18-3	R6	RIVERINE	0.012227	266.3	MRPW	35.166010	-116.182952	180902082504	2.00	18D17

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project												
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-18-4	R6	RIVERINE	0.006474	282.0	MRPW	35.166337	-116.182677	180902082504	1.00	18D19		
D-18-5	R6	RIVERINE	0.004027	175.4	MRPW	35.166423	-116.182739	180902082504	1.00			
D-18-6	R6	RIVERINE	0.005611	244.4	MRPW	35.166631	-116.182437	180902082504	1.00			
D-18-7	R6	RIVERINE	0.012236	296.1	MRPW	35.167193	-116.181977	180902082504	1.80			
D-18-12	R6	RIVERINE	0.009831	225.4	MRPW	35.168523	-116.180626	180902082504	1.90			
D-18-13	R6	RIVERINE	0.010399	238.4	MRPW	35.168365	-116.180785	180902082504	1.90			
D-18-16	R6	RIVERINE	0.012376	299.5	MRPW	35.169210	-116.179998	180902082504	1.80			
D-18-17	R6	RIVERINE	0.014331	346.8	MRPW	35.169092	-116.180174	180902082504	1.80			
D-18-27	R6	RIVERINE	0.019986	290.2	MRPW	35.171052	-116.178373	180902082504	3.00	18MD13		
D-18-28	R6	RIVERINE	0.035014	254.2	MRPW	35.171385	-116.178103	180902082504	6.00	18MD15		
D-18-29	R6	RIVERINE	0.012884	311.8	MRPW	35.171466	-116.178039	180902082504	1.80			
D-18-30	R6	RIVERINE	0.033343	363.1	MRPW	35.171760	-116.177666	180902082504	4.00	18MD16		
D-18-32	R6	RIVERINE	0.004913	118.9	MRPW	35.172126	-116.177088	180902082504	1.80			
D-18-33	R6	RIVERINE	0.010273	248.6	MRPW	35.172154	-116.177277	180902082504	1.80			
D-18-34	R6	RIVERINE	0.010525	254.7	MRPW	35.172295	-116.177157	180902082504	1.80			
D-18-35	R6	RIVERINE	0.009293	224.9	MRPW	35.172435	-116.177068	180902082504	1.80			
D-18-36	R6	RIVERINE	0.014752	357.0	MRPW	35.172747	-116.176843	180902082504	1.80			
D-18-37	R6	RIVERINE	0.012723	307.9	MRPW	35.172977	-116.176513	180902082504	1.80			
D-18-38	R6	RIVERINE	0.009508	230.1	MRPW	35.173098	-116.176562	180902082504	1.80			
D-18-39	R6	RIVERINE	0.007161	173.3	MRPW	35.173245	-116.176240	180902082504	1.80			
D-18-44	R6	RIVERINE	0.060663	377.5	MRPW	35.173394	-116.176192	180902082504	7.00			
D-18-46	R6	RIVERINE	0.016777	406.0	MRPW	35.173492	-116.175997	180902082504	1.80			
D-18-47	R6	RIVERINE	0.005099	123.4	MRPW	35.173572	-116.175855	180902082504	1.80			
D-18-48	R6	RIVERINE	0.013471	326.0	MRPW	35.174119	-116.175507	180902082504	1.80			
D-18-49	R6	RIVERINE	0.050829	316.3	MRPW	35.174297	-116.175431	180902082504	7.00			
D-18-53	R6	RIVERINE	0.016819	385.6	MRPW	35.175056	-116.174661	180902082504	1.90			
D-18-54	R6	RIVERINE	0.007934	181.9	MRPW	35.175163	-116.174690	180902082504	1.90			
D-18-56	R6	RIVERINE	0.013508	309.7	MRPW	35.175337	-116.174314	180902082504	1.90			
D-18-59	R6	RIVERINE	0.012380	299.6	MRPW	35.175635	-116.174110	180902082504	1.80			
D-18-60	R6	RIVERINE	0.013628	329.8	MRPW	35.175739	-116.174012	180902082504	1.80			
D-18-61	R6	RIVERINE	0.008314	201.2	MRPW	35.175760	-116.174139	180902082504	1.80			
D-18-62	R6	RIVERINE	0.012521	303.0	MRPW	35.175897	-116.173933	180902082504	1.80			
D-18-64	R6	RIVERINE	0.014178	343.1	MRPW	35.176002	-116.173833	180902082504	1.80			
D-18-65	R6	RIVERINE	0.005120	123.9	MRPW	35.175935	-116.173568	180902082504	1.80			
D-18-66	R6	RIVERINE	0.021314	515.8	MRPW	35.176479	-116.173479	180902082504	1.80			
D-18-67	R6	RIVERINE	0.003650	85.9	MRPW	35.176341	-116.173794	180902082504	1.80			
D-18-69	R6	RIVERINE	0.014421	349.0	MRPW	35.176336	-116.173422	180902082504	1.80			
D-18-75	R6	RIVERINE	0.011000	266.2	MRPW	35.176887	-116.172745	180902082504	1.80			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point
D-18-77	R6	RIVERINE	0.012045	291.5	MRPW	35.176941	-116.172908	180902082504	1.80	
D-18-78	R6	RIVERINE	0.011924	259.7	MRPW	35.177434	-116.172495	180902082504	2.00	18D1
D-18-80	R6	RIVERINE	0.074869	465.9	MRPW	35.177822	-116.172216	180902082504	7.00	18MD3
D-18-81	R6	RIVERINE	0.072590	527.0	MRPW	35.178320	-116.171776	180902082504	6.00	18MD4
D-18-84	R6	RIVERINE	0.098604	613.6	MRPW	35.178908	-116.171141	180902082504	7.00	
D-18-85	R6	RIVERINE	0.005401	130.7	MRPW	35.178623	-116.171347	180902082504	1.80	
D-18-86	R6	RIVERINE	0.007686	186.0	MRPW	35.179803	-116.170564	180902082504	1.80	
D-18-101	R6	RIVERINE	0.012632	305.7	MRPW	35.190256	-116.159959	180902082504	1.80	
D-18-110	R6	RIVERINE	0.045445	282.8	MRPW	35.195079	-116.151034	180902082504	7.00	
D-18-119	R6	RIVERINE	0.002814	38.3	MRPW	35.196300	-116.144461	180902082504	3.20	
D-18-122	R6	RIVERINE	0.269192	820.0	MRPW	35.197056	-116.135841	180902082504	14.30	
D-18-135	R6	RIVERINE	0.035100	477.8	MRPW	35.197049	-116.134790	180902082504	3.20	
D-18-136	R6	RIVERINE	0.028165	383.4	MRPW	35.197076	-116.133837	180902082504	3.20	
D-18-137	R6	RIVERINE	0.044626	277.7	MRPW	35.194535	-116.152770	180902082504	7.00	
D-18-140	R6	RIVERINE	0.012719	307.8	MRPW	35.194114	-116.153748	180902082504	1.80	
D-18-141	R6	RIVERINE	0.084109	523.4	MRPW	35.191707	-116.157749	180902082504	7.00	
D-18-142	R6	RIVERINE	0.040335	251.0	MRPW	35.191580	-116.158521	180902082504	7.00	
D-18-143	R6	RIVERINE	0.081827	509.2	MRPW	35.191002	-116.158654	180902082504	7.00	
D-18-144	R6	RIVERINE	0.035193	219.0	MRPW	35.189443	-116.161003	180902082504	7.00	
D-18-145	R6	RIVERINE	0.022032	137.1	MRPW	35.189492	-116.161000	180902082504	7.00	
D-18-147	R6	RIVERINE	0.085413	286.2	MRPW	35.185572	-116.164738	180902082504	13.00	18MD8
D-18-156	R6	RIVERINE	0.182369	397.2	MRPW	35.179657	-116.170300	180902082504	20.00	18M5
D-18-157	R6	RIVERINE	0.045914	100.0	MRPW	35.179196	-116.170331	180902082504	20.00	
D-18-158	R6	RIVERINE	0.261667	5699.1	MRPW	35.173443	-116.175654	180902082504	2.00	17D30
D-18-159	R6	RIVERINE	0.046377	288.6	MRPW	35.167322	-116.181759	180902082504	7.00	18MD23
D-18-160	R6	RIVERINE	0.037266	231.9	MRPW	35.168692	-116.180470	180902082504	7.00	
D-18-161	R6	RIVERINE	0.043999	273.8	MRPW	35.169683	-116.179539	180902082504	7.00	
D-18-162	R6	RIVERINE	0.037137	231.1	MRPW	35.170743	-116.178579	180902082504	7.00	
D-18-163	R6	RIVERINE	0.038343	238.6	MRPW	35.170620	-116.178703	180902082504	7.00	
D-18-164	R6	RIVERINE	0.045028	280.2	MRPW	35.176578	-116.173189	180902082504	7.00	
D-18-165	R6	RIVERINE	0.058478	363.9	MRPW	35.173780	-116.175761	180902082504	7.00	
D-18-167	R6	RIVERINE	0.018066	437.2	MRPW	35.196753	-116.139541	180902082504	1.80	
D-18-168	R6	RIVERINE	0.046727	1130.8	MRPW	35.196634	-116.136321	180902082504	1.80	
D-18-169	R6	RIVERINE	0.014616	353.7	MRPW	35.196578	-116.138351	180902082504	1.80	
D-18-171	R6	RIVERINE	0.012867	295.0	MRPW	35.170033	-116.179152	180902082504	1.90	
D-18-172	R6	RIVERINE	0.008939	259.6	MRPW	35.171291	-116.178219	180902082504	1.50	18MD14
D-18-173	R6	RIVERINE	0.006001	130.7	MRPW	35.177619	-116.172109	180902082504	2.00	18D2
D-18-174	R6	RIVERINE	0.006115	140.2	MRPW	35.177860	-116.172300	180902082504	1.90	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-18-175	R6	RIVERINE	0.063030	915.2	MRPW	35.188247	-116.161344	180902082504	3.00	18MD10
D-18-176	R6	RIVERINE	0.625950	1298.4	MRPW	35.189793	-116.160046	180902082504	21.00	18MD11
D-18-177	R6	RIVERINE	0.088935	968.5	MRPW	35.190063	-116.158889	180902082504	4.00	18M12
D-18-178	R6	RIVERINE	0.677679	1405.7	MRPW	35.192487	-116.156388	180902082504	21.00	
D-18-179	R6	RIVERINE	0.020457	127.3	MRPW	35.193590	-116.155618	180902082504	7.00	
D-18-180	R6	RIVERINE	0.013632	329.9	MRPW	35.197391	-116.132566	180902082504	1.80	
D-18-181	R6	RIVERINE	0.013876	335.8	MRPW	35.197343	-116.132308	180902082504	1.80	
D-18-182	R6	RIVERINE	0.005653	136.8	MRPW	35.197585	-116.132218	180902082504	1.80	
D-18-190	R6	RIVERINE	0.010358	225.6	MRPW	35.167513	-116.181560	180902082504	2.00	18D24
D-18-191	R6	RIVERINE	0.008655	188.5	MRPW	35.167442	-116.181714	180902082504	2.00	18MD22
D-18-192	R6	RIVERINE	0.007989	87.0	MRPW	35.167450	-116.181623	180902082504	4.00	18D28
D-19-1	R6	RIVERINE	0.006736	163.0	MRPW	35.195145	-116.148787	Oasis of Mara-Soda Lake	1.80	
D-19-3	R6	RIVERINE	0.054898	747.3	MRPW	35.195502	-116.145269	Oasis of Mara-Soda Lake	3.20	
D-19-11	R6	RIVERINE	0.001744	42.2	MRPW	35.196245	-116.139020	Oasis of Mara-Soda Lake	1.80	
D-19-44	R6	RIVERINE	0.023339	317.7	MRPW	35.200246	-116.123280	Oasis of Mara-Soda Lake	3.20	
D-19-45	R6	RIVERINE	0.005355	129.6	MRPW	35.200468	-116.123386	Oasis of Mara-Soda Lake	1.80	
D-19-46	R6	RIVERINE	0.004971	120.3	MRPW	35.200171	-116.123179	Oasis of Mara-Soda Lake	1.80	
D-19-47	R6	RIVERINE	0.010430	252.4	MRPW	35.200697	-116.122804	Oasis of Mara-Soda Lake	1.80	
D-19-48	R6	RIVERINE	0.007806	188.9	MRPW	35.200510	-116.122848	Oasis of Mara-Soda Lake	1.80	
D-19-49	R6	RIVERINE	0.007273	176.0	MRPW	35.200818	-116.122774	Oasis of Mara-Soda Lake	1.80	
D-19-50	R6	RIVERINE	0.007921	191.7	MRPW	35.200881	-116.122676	Oasis of Mara-Soda Lake	1.80	
D-19-51	R6	RIVERINE	0.009215	223.0	MRPW	35.200870	-116.122459	Oasis of Mara-Soda Lake	1.80	
D-19-52	R6	RIVERINE	0.009293	224.9	MRPW	35.200984	-116.122410	Oasis of Mara-Soda Lake	1.80	
D-19-53	R6	RIVERINE	0.005930	143.5	MRPW	35.200952	-116.122218	Oasis of Mara-Soda Lake	1.80	
D-19-54	R6	RIVERINE	0.004351	105.3	MRPW	35.200996	-116.122092	Oasis of Mara-Soda Lake	1.80	
D-19-55	R6	RIVERINE	0.020092	273.5	MRPW	35.201140	-116.122151	Oasis of Mara-Soda Lake	3.20	
D-19-56	R6	RIVERINE	0.014097	191.9	MRPW	35.201237	-116.122183	Oasis of Mara-Soda Lake	3.20	
D-19-57	R6	RIVERINE	0.014157	342.6	MRPW	35.201404	-116.121800	Oasis of Mara-Soda Lake	1.80	
D-19-58	R6	RIVERINE	0.010269	248.5	MRPW	35.201529	-116.121746	Oasis of Mara-Soda Lake	1.80	
D-19-59	R6	RIVERINE	0.009335	225.9	MRPW	35.201660	-116.121604	Oasis of Mara-Soda Lake	1.80	
D-19-60	R6	RIVERINE	0.004426	107.1	MRPW	35.201652	-116.121885	Oasis of Mara-Soda Lake	1.80	
D-19-61	R6	RIVERINE	0.005128	124.1	MRPW	35.201528	-116.121983	Oasis of Mara-Soda Lake	1.80	
D-19-63	R6	RIVERINE	0.278763	1103.9	MRPW	35.202529	-116.120766	Oasis of Mara-Soda Lake	11.00	19M2
D-19-64	R6	RIVERINE	0.006289	152.2	MRPW	35.201840	-116.121567	Oasis of Mara-Soda Lake	1.80	
D-19-65	R6	RIVERINE	0.006248	151.2	MRPW	35.201707	-116.121486	Oasis of Mara-Soda Lake	1.80	
D-19-66	R6	RIVERINE	0.004988	120.7	MRPW	35.201943	-116.121511	Oasis of Mara-Soda Lake	1.80	
D-19-67	R6	RIVERINE	0.018641	203.0	MRPW	35.201919	-116.121402	Oasis of Mara-Soda Lake	4.00	19MD3
D-19-68	R6	RIVERINE	0.001864	45.1	MRPW	35.202160	-116.121476	Oasis of Mara-Soda Lake	1.80	

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D-19-69	R6	RIVERINE	0.006066	146.8	MRPW	35.202162	-116.121244	Oasis of Mara-Soda Lake	1.80	
D-19-70	R6	RIVERINE	0.004868	117.8	MRPW	35.202309	-116.121110	Oasis of Mara-Soda Lake	1.80	
D-19-71	R6	RIVERINE	0.004112	99.5	MRPW	35.202439	-116.120983	Oasis of Mara-Soda Lake	1.80	
D-19-72	R6	RIVERINE	0.003320	96.4	MRPW	35.202707	-116.120794	Oasis of Mara-Soda Lake	1.50	19D4
D-19-73	R6	RIVERINE	0.004657	63.4	MRPW	35.202974	-116.120631	Oasis of Mara-Soda Lake	3.20	
D-19-120	R6	RIVERINE	0.078248	2726.8	MRPW	35.210502	-116.115793	Oasis of Mara-Soda Lake	1.25	19D24
D-19-121	R6	RIVERINE	0.112043	341.3	MRPW	35.213960	-116.113535	Oasis of Mara-Soda Lake	14.30	
D-19-122	R6	RIVERINE	0.009277	224.5	MRPW	35.213917	-116.113854	Oasis of Mara-Soda Lake	1.80	
D-19-124	R6	RIVERINE	0.024930	201.1	MRPW	35.213523	-116.114128	Oasis of Mara-Soda Lake	5.40	
D-19-125	R6	RIVERINE	0.023045	185.9	MRPW	35.213371	-116.114250	Oasis of Mara-Soda Lake	5.40	
D-19-126	R6	RIVERINE	0.008012	193.9	MRPW	35.213177	-116.114344	Oasis of Mara-Soda Lake	1.80	
D-19-127	R6	RIVERINE	0.014296	194.6	MRPW	35.212904	-116.114509	Oasis of Mara-Soda Lake	3.20	
D-19-132	R6	RIVERINE	0.025847	208.5	MRPW	35.212204	-116.114991	Oasis of Mara-Soda Lake	5.40	
D-19-133	R6	RIVERINE	0.010091	81.4	MRPW	35.212220	-116.115112	Oasis of Mara-Soda Lake	5.40	
D-19-134	R6	RIVERINE	0.014727	118.8	MRPW	35.212321	-116.114978	Oasis of Mara-Soda Lake	5.40	
D-19-137	R6	RIVERINE	0.030955	249.7	MRPW	35.211850	-116.115161	Oasis of Mara-Soda Lake	5.40	
D-19-138	R6	RIVERINE	0.029566	238.5	MRPW	35.211778	-116.115178	Oasis of Mara-Soda Lake	5.40	
D-19-141	R6	RIVERINE	0.005562	134.6	MRPW	35.211128	-116.115622	Oasis of Mara-Soda Lake	1.80	
D-19-145	R6	RIVERINE	0.005636	136.4	MRPW	35.210918	-116.115749	Oasis of Mara-Soda Lake	1.80	
D-19-146	R6	RIVERINE	0.004347	105.2	MRPW	35.210943	-116.115789	Oasis of Mara-Soda Lake	1.80	
D-19-147	R6	RIVERINE	0.006231	150.8	MRPW	35.210797	-116.115826	Oasis of Mara-Soda Lake	1.80	
D-19-151	R6	RIVERINE	0.004880	118.1	MRPW	35.210591	-116.115956	Oasis of Mara-Soda Lake	1.80	
D-19-152	R6	RIVERINE	0.013822	111.5	MRPW	35.210483	-116.116016	Oasis of Mara-Soda Lake	5.40	
D-19-158	R6	RIVERINE	0.004409	106.7	MRPW	35.210408	-116.116069	Oasis of Mara-Soda Lake	1.80	
D-19-166	R6	RIVERINE	0.002740	66.3	MRPW	35.209427	-116.116705	Oasis of Mara-Soda Lake	1.80	
D-19-168	R6	RIVERINE	0.008702	70.2	MRPW	35.209263	-116.116781	Oasis of Mara-Soda Lake	5.40	
D-19-172	R6	RIVERINE	0.001868	45.2	MRPW	35.208751	-116.117084	Oasis of Mara-Soda Lake	1.80	
D-19-173	R6	RIVERINE	0.001752	42.4	MRPW	35.208637	-116.117153	Oasis of Mara-Soda Lake	1.80	
D-19-174	R6	RIVERINE	0.001405	34.0	MRPW	35.208414	-116.117296	Oasis of Mara-Soda Lake	1.80	
D-19-175	R6	RIVERINE	0.001285	31.1	MRPW	35.208270	-116.117382	Oasis of Mara-Soda Lake	1.80	
D-19-176	R6	RIVERINE	0.001128	27.3	MRPW	35.208196	-116.117424	Oasis of Mara-Soda Lake	1.80	
D-19-178	R6	RIVERINE	0.008500	205.7	MRPW	35.214541	-116.113517	Oasis of Mara-Soda Lake	1.80	
D-19-179	R6	RIVERINE	0.009029	218.5	MRPW	35.214843	-116.113315	Oasis of Mara-Soda Lake	1.80	
D-19-181	R6	RIVERINE	0.007702	186.4	MRPW	35.215031	-116.113133	Oasis of Mara-Soda Lake	1.80	
D-19-182	R6	RIVERINE	0.004636	112.2	MRPW	35.215100	-116.112948	Oasis of Mara-Soda Lake	1.80	
D-19-183	R6	RIVERINE	0.068205	297.1	MRPW	35.215205	-116.113003	Oasis of Mara-Soda Lake	10.00	
D-19-184	R6	RIVERINE	0.004450	107.7	MRPW	35.215156	-116.112909	Oasis of Mara-Soda Lake	1.80	
D-19-187	R6	RIVERINE	0.004773	115.5	MRPW	35.214935	-116.113444	Oasis of Mara-Soda Lake	1.80	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-188	R6	RIVERINE	0.821725	2503.1	MRPW	35.217179	-116.111510	Oasis of Mara-Soda Lake	14.30	19M16
D-19-189	R6	RIVERINE	0.070119	270.3	MRPW	35.220289	-116.110050	Oasis of Mara-Soda Lake	11.30	19MD18
D-19-190	R6	RIVERINE	0.016576	63.9	MRPW	35.220491	-116.110304	Oasis of Mara-Soda Lake	11.30	
D-19-191	R6	RIVERINE	0.002872	69.5	MRPW	35.220395	-116.110347	Oasis of Mara-Soda Lake	1.80	
D-19-192	R6	RIVERINE	0.009174	222.0	MRPW	35.220164	-116.110212	Oasis of Mara-Soda Lake	1.80	
D-19-193	R6	RIVERINE	0.003496	84.6	MRPW	35.220202	-116.110478	Oasis of Mara-Soda Lake	1.80	
D-19-194	R6	RIVERINE	0.001678	40.6	MRPW	35.220332	-116.110244	Oasis of Mara-Soda Lake	1.80	
D-19-195	R6	RIVERINE	0.003182	77.0	MRPW	35.220263	-116.110214	Oasis of Mara-Soda Lake	1.80	
D-19-196	R6	RIVERINE	0.018496	350.3	MRPW	35.220017	-116.110286	Oasis of Mara-Soda Lake	2.30	19D17
D-19-197	R6	RIVERINE	0.010277	248.7	MRPW	35.219888	-116.110448	Oasis of Mara-Soda Lake	1.80	
D-19-198	R6	RIVERINE	0.013326	322.5	MRPW	35.219842	-116.110423	Oasis of Mara-Soda Lake	1.80	
D-19-199	R6	RIVERINE	0.006645	160.8	MRPW	35.219796	-116.110418	Oasis of Mara-Soda Lake	1.80	
D-19-200	R6	RIVERINE	0.002702	65.4	MRPW	35.219835	-116.110196	Oasis of Mara-Soda Lake	1.80	
D-19-201	R6	RIVERINE	0.002719	65.8	MRPW	35.219880	-116.110071	Oasis of Mara-Soda Lake	1.80	
D-19-202	R6	RIVERINE	0.012149	294.0	MRPW	35.219718	-116.110530	Oasis of Mara-Soda Lake	1.80	
D-19-203	R6	RIVERINE	0.002992	72.4	MRPW	35.219682	-116.110591	Oasis of Mara-Soda Lake	1.80	
D-19-204	R6	RIVERINE	0.005380	130.2	MRPW	35.219667	-116.110373	Oasis of Mara-Soda Lake	1.80	
D-19-205	R6	RIVERINE	0.010661	258.0	MRPW	35.219568	-116.110657	Oasis of Mara-Soda Lake	1.80	
D-19-206	R6	RIVERINE	0.005657	136.9	MRPW	35.219592	-116.110298	Oasis of Mara-Soda Lake	1.80	
D-19-207	R6	RIVERINE	0.007620	184.4	MRPW	35.219347	-116.110790	Oasis of Mara-Soda Lake	1.80	
D-19-208	R6	RIVERINE	0.008793	212.8	MRPW	35.219278	-116.110771	Oasis of Mara-Soda Lake	1.80	
D-19-209	R6	RIVERINE	0.005521	133.6	MRPW	35.219229	-116.110690	Oasis of Mara-Soda Lake	1.80	
D-19-210	R6	RIVERINE	0.060376	263.0	MRPW	35.219133	-116.110743	Oasis of Mara-Soda Lake	10.00	
D-19-211	R6	RIVERINE	0.009240	223.6	MRPW	35.219391	-116.110671	Oasis of Mara-Soda Lake	1.80	
D-19-212	R6	RIVERINE	0.010368	250.9	MRPW	35.218588	-116.111089	Oasis of Mara-Soda Lake	1.80	
D-19-215	R6	RIVERINE	0.009335	225.9	MRPW	35.218423	-116.111228	Oasis of Mara-Soda Lake	1.80	
D-19-216	R6	RIVERINE	0.004773	115.5	MRPW	35.218392	-116.111485	Oasis of Mara-Soda Lake	1.80	
D-19-217	R6	RIVERINE	0.007851	190.0	MRPW	35.218330	-116.111377	Oasis of Mara-Soda Lake	1.80	
D-19-218	R6	RIVERINE	0.010384	251.3	MRPW	35.218163	-116.111303	Oasis of Mara-Soda Lake	1.80	
D-19-219	R6	RIVERINE	0.008326	201.5	MRPW	35.218051	-116.111553	Oasis of Mara-Soda Lake	1.80	
D-19-220	R6	RIVERINE	0.006281	152.0	MRPW	35.218152	-116.111554	Oasis of Mara-Soda Lake	1.80	
D-19-221	R6	RIVERINE	0.004847	117.3	MRPW	35.218124	-116.111110	Oasis of Mara-Soda Lake	1.80	
D-19-222	R6	RIVERINE	0.052824	230.1	MRPW	35.217809	-116.111566	Oasis of Mara-Soda Lake	10.00	
D-19-223	R6	RIVERINE	0.008752	211.8	MRPW	35.217970	-116.111426	Oasis of Mara-Soda Lake	1.80	
D-19-224	R6	RIVERINE	0.006322	153.0	MRPW	35.218073	-116.111568	Oasis of Mara-Soda Lake	1.80	
D-19-227	R6	RIVERINE	0.006169	149.3	MRPW	35.217768	-116.111772	Oasis of Mara-Soda Lake	1.80	
D-19-228	R6	RIVERINE	0.003917	94.8	MRPW	35.217672	-116.111967	Oasis of Mara-Soda Lake	1.80	
D-19-229	R6	RIVERINE	0.004302	104.1	MRPW	35.217722	-116.111747	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-230	R6	RIVERINE	0.010525	254.7	MRPW	35.217632	-116.111686	Oasis of Mara-Soda Lake	1.80	
D-19-231	R6	RIVERINE	0.006938	167.9	MRPW	35.217592	-116.111500	Oasis of Mara-Soda Lake	1.80	
D-19-232	R6	RIVERINE	0.010107	244.6	MRPW	35.217450	-116.111810	Oasis of Mara-Soda Lake	1.80	
D-19-234	R6	RIVERINE	0.012062	291.9	MRPW	35.217334	-116.111872	Oasis of Mara-Soda Lake	1.80	
D-19-241	R6	RIVERINE	0.010579	256.0	MRPW	35.217008	-116.112040	Oasis of Mara-Soda Lake	1.80	
D-19-242	R6	RIVERINE	0.010806	261.5	MRPW	35.216849	-116.112105	Oasis of Mara-Soda Lake	1.80	
D-19-246	R6	RIVERINE	0.010017	242.4	MRPW	35.216686	-116.112226	Oasis of Mara-Soda Lake	1.80	
D-19-247	R6	RIVERINE	0.009393	227.3	MRPW	35.216534	-116.112312	Oasis of Mara-Soda Lake	1.80	
D-19-250	R6	RIVERINE	0.010545	255.2	MRPW	35.216382	-116.112436	Oasis of Mara-Soda Lake	1.80	
D-19-252	R6	RIVERINE	0.004397	106.4	MRPW	35.216300	-116.112695	Oasis of Mara-Soda Lake	1.80	
D-19-253	R6	RIVERINE	0.010335	250.1	MRPW	35.216070	-116.112656	Oasis of Mara-Soda Lake	1.80	
D-19-254	R6	RIVERINE	0.008893	215.2	MRPW	35.215904	-116.112762	Oasis of Mara-Soda Lake	1.80	
D-19-255	R6	RIVERINE	0.007731	187.1	MRPW	35.215809	-116.112626	Oasis of Mara-Soda Lake	1.80	
D-19-256	R6	RIVERINE	0.016727	227.7	MRPW	35.215553	-116.112888	Oasis of Mara-Soda Lake	3.20	
D-19-258	R6	RIVERINE	0.008388	203.0	MRPW	35.215429	-116.113041	Oasis of Mara-Soda Lake	1.80	
D-19-260	R6	RIVERINE	0.006479	156.8	MRPW	35.215524	-116.113112	Oasis of Mara-Soda Lake	1.80	
D-19-261	R6	RIVERINE	0.005165	125.0	MRPW	35.215564	-116.113077	Oasis of Mara-Soda Lake	1.80	
D-19-262	R6	RIVERINE	0.003083	74.6	MRPW	35.215611	-116.113126	Oasis of Mara-Soda Lake	1.80	
D-19-263	R6	RIVERINE	0.001930	46.7	MRPW	35.215552	-116.113250	Oasis of Mara-Soda Lake	1.80	
D-19-264	R6	RIVERINE	0.003409	82.5	MRPW	35.215640	-116.113099	Oasis of Mara-Soda Lake	1.80	
D-19-273	R6	RIVERINE	0.002417	58.5	MRPW	35.217704	-116.111994	Oasis of Mara-Soda Lake	1.80	
D-19-283	R6	RIVERINE	0.003822	92.5	MRPW	35.219978	-116.110478	Oasis of Mara-Soda Lake	1.80	
D-19-284	R6	RIVERINE	0.007785	188.4	MRPW	35.220576	-116.109830	Oasis of Mara-Soda Lake	1.80	
D-19-285	R6	RIVERINE	0.001434	34.7	MRPW	35.220515	-116.109805	Oasis of Mara-Soda Lake	1.80	
D-19-286	R6	RIVERINE	0.001157	28.0	MRPW	35.220502	-116.109778	Oasis of Mara-Soda Lake	1.80	
D-19-287	R6	RIVERINE	0.010955	265.1	MRPW	35.220688	-116.109849	Oasis of Mara-Soda Lake	1.80	
D-19-288	R6	RIVERINE	0.005843	141.4	MRPW	35.220795	-116.109625	Oasis of Mara-Soda Lake	1.80	
D-19-289	R6	RIVERINE	0.018902	257.3	MRPW	35.220962	-116.109689	Oasis of Mara-Soda Lake	3.20	
D-19-290	R6	RIVERINE	0.010897	263.7	MRPW	35.221031	-116.109666	Oasis of Mara-Soda Lake	1.80	
D-19-291	R6	RIVERINE	0.011103	268.7	MRPW	35.221092	-116.109631	Oasis of Mara-Soda Lake	1.80	
D-19-292	R6	RIVERINE	0.011306	273.6	MRPW	35.221181	-116.109573	Oasis of Mara-Soda Lake	1.80	
D-19-293	R6	RIVERINE	0.005483	132.7	MRPW	35.221227	-116.109763	Oasis of Mara-Soda Lake	1.80	
D-19-294	R6	RIVERINE	0.010455	253.0	MRPW	35.221478	-116.109418	Oasis of Mara-Soda Lake	1.80	
D-19-295	R6	RIVERINE	0.010099	244.4	MRPW	35.221644	-116.109299	Oasis of Mara-Soda Lake	1.80	
D-19-296	R6	RIVERINE	0.003851	93.2	MRPW	35.221747	-116.109529	Oasis of Mara-Soda Lake	1.80	
D-19-297	R6	RIVERINE	0.002806	67.9	MRPW	35.221791	-116.109568	Oasis of Mara-Soda Lake	1.80	
D-19-298	R6	RIVERINE	0.134841	2259.1	MRPW	35.222990	-116.108085	Oasis of Mara-Soda Lake	2.60	19D28
D-19-299	R6	RIVERINE	0.012450	301.3	MRPW	35.221997	-116.109061	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-300	R6	RIVERINE	0.011376	275.3	MRPW	35.222164	-116.109022	Oasis of Mara-Soda Lake	1.80	
D-19-301	R6	RIVERINE	0.005285	127.9	MRPW	35.222058	-116.109133	Oasis of Mara-Soda Lake	1.80	
D-19-302	R6	RIVERINE	0.011921	288.5	MRPW	35.222419	-116.108857	Oasis of Mara-Soda Lake	1.80	
D-19-303	R6	RIVERINE	0.012496	302.4	MRPW	35.222436	-116.108841	Oasis of Mara-Soda Lake	1.80	
D-19-304	R6	RIVERINE	0.012421	300.6	MRPW	35.222609	-116.108786	Oasis of Mara-Soda Lake	1.80	
D-19-305	R6	RIVERINE	0.007959	192.6	MRPW	35.222818	-116.108705	Oasis of Mara-Soda Lake	1.80	
D-19-306	R6	RIVERINE	0.007331	177.4	MRPW	35.222940	-116.108387	Oasis of Mara-Soda Lake	1.80	
D-19-307	R6	RIVERINE	0.004099	99.2	MRPW	35.222897	-116.108299	Oasis of Mara-Soda Lake	1.80	
D-19-308	R6	RIVERINE	0.012785	309.4	MRPW	35.223123	-116.108516	Oasis of Mara-Soda Lake	1.80	
D-19-309	R6	RIVERINE	0.003760	91.0	MRPW	35.223084	-116.108746	Oasis of Mara-Soda Lake	1.80	
D-19-310	R6	RIVERINE	0.003017	73.0	MRPW	35.223053	-116.108796	Oasis of Mara-Soda Lake	1.80	
D-19-311	R6	RIVERINE	0.007521	182.0	MRPW	35.223198	-116.108305	Oasis of Mara-Soda Lake	1.80	
D-19-312	R6	RIVERINE	0.011157	270.0	MRPW	35.223326	-116.108419	Oasis of Mara-Soda Lake	1.80	
D-19-313	R6	RIVERINE	0.004876	118.0	MRPW	35.223253	-116.108334	Oasis of Mara-Soda Lake	1.80	
D-19-314	R6	RIVERINE	0.010988	265.9	MRPW	35.223501	-116.108289	Oasis of Mara-Soda Lake	1.80	
D-19-315	R6	RIVERINE	0.011401	275.9	MRPW	35.223650	-116.108140	Oasis of Mara-Soda Lake	1.80	
D-19-316	R6	RIVERINE	0.003744	90.6	MRPW	35.223614	-116.107936	Oasis of Mara-Soda Lake	1.80	
D-19-317	R6	RIVERINE	0.003463	83.8	MRPW	35.223657	-116.107864	Oasis of Mara-Soda Lake	1.80	
D-19-318	R6	RIVERINE	0.002616	63.3	MRPW	35.223507	-116.108548	Oasis of Mara-Soda Lake	1.80	
D-19-319	R6	RIVERINE	0.018402	250.5	MRPW	35.223841	-116.108059	Oasis of Mara-Soda Lake	3.20	
D-19-320	R6	RIVERINE	0.004942	119.6	MRPW	35.223812	-116.107957	Oasis of Mara-Soda Lake	1.80	
D-19-321	R6	RIVERINE	0.009430	228.2	MRPW	35.223965	-116.107968	Oasis of Mara-Soda Lake	1.80	
D-19-322	R6	RIVERINE	0.010033	242.8	MRPW	35.224152	-116.107842	Oasis of Mara-Soda Lake	1.80	
D-19-323	R6	RIVERINE	0.009955	240.9	MRPW	35.224132	-116.107890	Oasis of Mara-Soda Lake	1.80	
D-19-324	R6	RIVERINE	0.002769	67.0	MRPW	35.223992	-116.107626	Oasis of Mara-Soda Lake	1.80	
D-19-325	R6	RIVERINE	0.020437	278.2	MRPW	35.224312	-116.107726	Oasis of Mara-Soda Lake	3.20	
D-19-326	R6	RIVERINE	0.011347	274.6	MRPW	35.224362	-116.107723	Oasis of Mara-Soda Lake	1.80	
D-19-327	R6	RIVERINE	0.006264	151.6	MRPW	35.224571	-116.107767	Oasis of Mara-Soda Lake	1.80	
D-19-328	R6	RIVERINE	0.006756	163.5	MRPW	35.224699	-116.107722	Oasis of Mara-Soda Lake	1.80	
D-19-329	R6	RIVERINE	0.009517	230.3	MRPW	35.224766	-116.107483	Oasis of Mara-Soda Lake	1.80	
D-19-330	R6	RIVERINE	0.009368	226.7	MRPW	35.224897	-116.107421	Oasis of Mara-Soda Lake	1.80	
D-19-331	R6	RIVERINE	0.010269	248.5	MRPW	35.225270	-116.107214	Oasis of Mara-Soda Lake	1.80	
D-19-332	R6	RIVERINE	0.009409	227.7	MRPW	35.225091	-116.107306	Oasis of Mara-Soda Lake	1.80	
D-19-333	R6	RIVERINE	0.003364	81.4	MRPW	35.225328	-116.107159	Oasis of Mara-Soda Lake	1.80	
D-19-334	R6	RIVERINE	0.003843	93.0	MRPW	35.225413	-116.107436	Oasis of Mara-Soda Lake	1.80	
D-19-335	R6	RIVERINE	0.009302	225.1	MRPW	35.225432	-116.107126	Oasis of Mara-Soda Lake	1.80	
D-19-336	R6	RIVERINE	0.003017	73.0	MRPW	35.225360	-116.106931	Oasis of Mara-Soda Lake	1.80	
D-19-337	R6	RIVERINE	0.002574	62.3	MRPW	35.225321	-116.106898	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-338	R6	RIVERINE	0.002711	65.6	MRPW	35.225306	-116.107021	Oasis of Mara-Soda Lake	1.80	
D-19-339	R6	RIVERINE	0.012607	305.1	MRPW	35.225646	-116.106957	Oasis of Mara-Soda Lake	1.80	
D-19-340	R6	RIVERINE	0.012934	313.0	MRPW	35.225897	-116.106843	Oasis of Mara-Soda Lake	1.80	
D-19-341	R6	RIVERINE	0.011112	268.9	MRPW	35.226215	-116.106663	Oasis of Mara-Soda Lake	1.80	
D-19-342	R6	RIVERINE	0.005256	127.2	MRPW	35.226276	-116.106433	Oasis of Mara-Soda Lake	1.80	
D-19-343	R6	RIVERINE	0.011653	282.0	MRPW	35.226535	-116.106448	Oasis of Mara-Soda Lake	1.80	
D-19-344	R6	RIVERINE	0.010897	263.7	MRPW	35.226657	-116.106448	Oasis of Mara-Soda Lake	1.80	
D-19-345	R6	RIVERINE	0.012413	300.4	MRPW	35.226751	-116.106350	Oasis of Mara-Soda Lake	1.80	
D-19-346	R6	RIVERINE	0.010153	245.7	MRPW	35.226925	-116.106250	Oasis of Mara-Soda Lake	1.80	
D-19-347	R6	RIVERINE	0.004798	116.1	MRPW	35.227033	-116.106375	Oasis of Mara-Soda Lake	1.80	
D-19-348	R6	RIVERINE	0.009777	236.6	MRPW	35.227097	-116.106103	Oasis of Mara-Soda Lake	1.80	
D-19-349	R6	RIVERINE	0.010376	251.1	MRPW	35.227275	-116.106053	Oasis of Mara-Soda Lake	1.80	
D-19-350	R6	RIVERINE	0.010116	244.8	MRPW	35.227519	-116.105893	Oasis of Mara-Soda Lake	1.80	
D-19-351	R6	RIVERINE	0.005612	135.8	MRPW	35.227428	-116.106004	Oasis of Mara-Soda Lake	1.80	
D-19-352	R6	RIVERINE	0.002798	67.7	MRPW	35.227480	-116.105632	Oasis of Mara-Soda Lake	1.80	
D-19-353	R6	RIVERINE	0.007215	174.6	MRPW	35.227307	-116.105838	Oasis of Mara-Soda Lake	1.80	
D-19-354	R6	RIVERINE	0.001690	40.9	MRPW	35.227388	-116.105691	Oasis of Mara-Soda Lake	1.80	
D-19-355	R6	RIVERINE	0.007149	173.0	MRPW	35.227630	-116.105714	Oasis of Mara-Soda Lake	1.80	
D-19-356	R6	RIVERINE	0.004541	109.9	MRPW	35.227810	-116.105497	Oasis of Mara-Soda Lake	1.80	
D-19-357	R6	RIVERINE	0.009149	221.4	MRPW	35.227968	-116.105556	Oasis of Mara-Soda Lake	1.80	
D-19-358	R6	RIVERINE	0.009277	224.5	MRPW	35.228091	-116.105642	Oasis of Mara-Soda Lake	1.80	
D-19-359	R6	RIVERINE	0.005124	124.0	MRPW	35.228190	-116.105690	Oasis of Mara-Soda Lake	1.80	
D-19-360	R6	RIVERINE	0.005360	129.7	MRPW	35.228165	-116.105714	Oasis of Mara-Soda Lake	1.80	
D-19-361	R6	RIVERINE	0.008331	201.6	MRPW	35.228209	-116.105276	Oasis of Mara-Soda Lake	1.80	
D-19-362	R6	RIVERINE	0.011715	283.5	MRPW	35.228500	-116.105391	Oasis of Mara-Soda Lake	1.80	
D-19-363	R6	RIVERINE	0.004802	116.2	MRPW	35.228499	-116.105556	Oasis of Mara-Soda Lake	1.80	
D-19-364	R6	RIVERINE	0.007835	189.6	MRPW	35.228679	-116.105297	Oasis of Mara-Soda Lake	1.80	
D-19-365	R6	RIVERINE	0.011785	285.2	MRPW	35.228581	-116.105214	Oasis of Mara-Soda Lake	1.80	
D-19-366	R6	RIVERINE	0.011248	272.2	MRPW	35.228801	-116.105161	Oasis of Mara-Soda Lake	1.80	
D-19-367	R6	RIVERINE	0.010587	256.2	MRPW	35.229007	-116.105025	Oasis of Mara-Soda Lake	1.80	
D-19-368	R6	RIVERINE	0.005231	126.6	MRPW	35.228869	-116.104838	Oasis of Mara-Soda Lake	1.80	
D-19-369	R6	RIVERINE	0.004678	113.2	MRPW	35.228918	-116.104807	Oasis of Mara-Soda Lake	1.80	
D-19-370	R6	RIVERINE	0.011074	268.0	MRPW	35.229182	-116.104808	Oasis of Mara-Soda Lake	1.80	
D-19-371	R6	RIVERINE	0.011384	275.5	MRPW	35.229413	-116.104781	Oasis of Mara-Soda Lake	1.80	
D-19-372	R6	RIVERINE	0.005802	140.4	MRPW	35.229350	-116.104626	Oasis of Mara-Soda Lake	1.80	
D-19-373	R6	RIVERINE	0.005835	141.2	MRPW	35.229562	-116.104515	Oasis of Mara-Soda Lake	1.80	
D-19-374	R6	RIVERINE	0.011934	288.8	MRPW	35.229647	-116.104642	Oasis of Mara-Soda Lake	1.80	
D-19-375	R6	RIVERINE	0.010314	249.6	MRPW	35.229890	-116.104492	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-376	R6	RIVERINE	0.006612	160.0	MRPW	35.229727	-116.104733	Oasis of Mara-Soda Lake	1.80	
D-19-377	R6	RIVERINE	0.010785	261.0	MRPW	35.229995	-116.104389	Oasis of Mara-Soda Lake	1.80	
D-19-378	R6	RIVERINE	0.003851	93.2	MRPW	35.230094	-116.104079	Oasis of Mara-Soda Lake	1.80	
D-19-379	R6	RIVERINE	0.012661	306.4	MRPW	35.230141	-116.104419	Oasis of Mara-Soda Lake	1.80	
D-19-380	R6	RIVERINE	0.012293	297.5	MRPW	35.230385	-116.104230	Oasis of Mara-Soda Lake	1.80	
D-19-381	R6	RIVERINE	0.003897	94.3	MRPW	35.230378	-116.103993	Oasis of Mara-Soda Lake	1.80	
D-19-382	R6	RIVERINE	0.006988	169.1	MRPW	35.230463	-116.104416	Oasis of Mara-Soda Lake	1.80	
D-19-383	R6	RIVERINE	0.011178	270.5	MRPW	35.230672	-116.104082	Oasis of Mara-Soda Lake	1.80	
D-19-384	R6	RIVERINE	0.009483	229.5	MRPW	35.230725	-116.103964	Oasis of Mara-Soda Lake	1.80	
D-19-385	R6	RIVERINE	0.003438	83.2	MRPW	35.230735	-116.104347	Oasis of Mara-Soda Lake	1.80	
D-19-386	R6	RIVERINE	0.011764	284.7	MRPW	35.230904	-116.103909	Oasis of Mara-Soda Lake	1.80	
D-19-387	R6	RIVERINE	0.004376	105.9	MRPW	35.230862	-116.103643	Oasis of Mara-Soda Lake	1.80	
D-19-388	R6	RIVERINE	0.010566	255.7	MRPW	35.230999	-116.103801	Oasis of Mara-Soda Lake	1.80	
D-19-389	R6	RIVERINE	0.002438	59.0	MRPW	35.230998	-116.103541	Oasis of Mara-Soda Lake	1.80	
D-19-390	R6	RIVERINE	0.001632	39.5	MRPW	35.231001	-116.103476	Oasis of Mara-Soda Lake	1.80	
D-19-391	R6	RIVERINE	0.005471	132.4	MRPW	35.231162	-116.103543	Oasis of Mara-Soda Lake	1.80	
D-19-392	R6	RIVERINE	0.005372	130.0	MRPW	35.231400	-116.103399	Oasis of Mara-Soda Lake	1.80	
D-19-393	R6	RIVERINE	0.011479	277.8	MRPW	35.231484	-116.103639	Oasis of Mara-Soda Lake	1.80	
D-19-394	R6	RIVERINE	0.003967	96.0	MRPW	35.231392	-116.103547	Oasis of Mara-Soda Lake	1.80	
D-19-395	R6	RIVERINE	0.006740	163.1	MRPW	35.231655	-116.103299	Oasis of Mara-Soda Lake	1.80	
D-19-396	R6	RIVERINE	0.012843	310.8	MRPW	35.231791	-116.103405	Oasis of Mara-Soda Lake	1.80	
D-19-397	R6	RIVERINE	0.012512	302.8	MRPW	35.231839	-116.103343	Oasis of Mara-Soda Lake	1.80	
D-19-398	R6	RIVERINE	0.011438	276.8	MRPW	35.231907	-116.103276	Oasis of Mara-Soda Lake	1.80	
D-19-399	R6	RIVERINE	0.005128	124.1	MRPW	35.231862	-116.103084	Oasis of Mara-Soda Lake	1.80	
D-19-400	R6	RIVERINE	0.010793	261.2	MRPW	35.232042	-116.103153	Oasis of Mara-Soda Lake	1.80	
D-19-401	R6	RIVERINE	0.002909	70.4	MRPW	35.232045	-116.102909	Oasis of Mara-Soda Lake	1.80	
D-19-402	R6	RIVERINE	0.010872	263.1	MRPW	35.232192	-116.103136	Oasis of Mara-Soda Lake	1.80	
D-19-403	R6	RIVERINE	0.013938	337.3	MRPW	35.232514	-116.103004	Oasis of Mara-Soda Lake	1.80	
D-19-404	R6	RIVERINE	0.008764	212.1	MRPW	35.232572	-116.102962	Oasis of Mara-Soda Lake	1.80	
D-19-405	R6	RIVERINE	0.006289	152.2	MRPW	35.232557	-116.102908	Oasis of Mara-Soda Lake	1.80	
D-19-406	R6	RIVERINE	0.002380	57.6	MRPW	35.232505	-116.103141	Oasis of Mara-Soda Lake	1.80	
D-19-407	R6	RIVERINE	0.000806	19.5	MRPW	35.232487	-116.103136	Oasis of Mara-Soda Lake	1.80	
D-19-408	R6	RIVERINE	0.006264	151.6	MRPW	35.232795	-116.102526	Oasis of Mara-Soda Lake	1.80	
D-19-409	R6	RIVERINE	0.012198	295.2	MRPW	35.232907	-116.102768	Oasis of Mara-Soda Lake	1.80	
D-19-410	R6	RIVERINE	0.011112	268.9	MRPW	35.233043	-116.102670	Oasis of Mara-Soda Lake	1.80	
D-19-411	R6	RIVERINE	0.006054	146.5	MRPW	35.233096	-116.102818	Oasis of Mara-Soda Lake	1.80	
D-19-412	R6	RIVERINE	0.004566	110.5	MRPW	35.233101	-116.102341	Oasis of Mara-Soda Lake	1.80	
D-19-413	R6	RIVERINE	0.010570	255.8	MRPW	35.233291	-116.102526	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-414	R6	RIVERINE	0.006483	156.9	MRPW	35.233460	-116.102229	Oasis of Mara-Soda Lake	1.80	
D-19-415	R6	RIVERINE	0.007711	186.6	MRPW	35.233461	-116.102556	Oasis of Mara-Soda Lake	1.80	
D-19-416	R6	RIVERINE	0.004045	97.9	MRPW	35.233397	-116.102283	Oasis of Mara-Soda Lake	1.80	
D-19-417	R6	RIVERINE	0.012686	307.0	MRPW	35.233826	-116.102221	Oasis of Mara-Soda Lake	1.80	
D-19-418	R6	RIVERINE	0.009637	322.9	MRPW	35.234023	-116.102157	Oasis of Mara-Soda Lake	1.30	19D15
D-19-419	R6	RIVERINE	0.007921	191.7	MRPW	35.234079	-116.102200	Oasis of Mara-Soda Lake	1.80	
D-19-420	R6	RIVERINE	0.013165	318.6	MRPW	35.234293	-116.101906	Oasis of Mara-Soda Lake	1.80	
D-19-421	R6	RIVERINE	0.010326	249.9	MRPW	35.234600	-116.101793	Oasis of Mara-Soda Lake	1.80	
D-19-422	R6	RIVERINE	0.009140	221.2	MRPW	35.234324	-116.101988	Oasis of Mara-Soda Lake	1.80	
D-19-423	R6	RIVERINE	0.005917	143.2	MRPW	35.234235	-116.101671	Oasis of Mara-Soda Lake	1.80	
D-19-424	R6	RIVERINE	0.003310	80.1	MRPW	35.234153	-116.101929	Oasis of Mara-Soda Lake	1.80	
D-19-425	R6	RIVERINE	0.007558	182.9	MRPW	35.234456	-116.101946	Oasis of Mara-Soda Lake	1.80	
D-19-426	R6	RIVERINE	0.004211	101.9	MRPW	35.234417	-116.101969	Oasis of Mara-Soda Lake	1.80	
D-19-427	R6	RIVERINE	0.004550	110.1	MRPW	35.234358	-116.102140	Oasis of Mara-Soda Lake	1.80	
D-19-428	R6	RIVERINE	0.004950	119.8	MRPW	35.233789	-116.102238	Oasis of Mara-Soda Lake	1.80	
D-19-429	R6	RIVERINE	0.007897	191.1	MRPW	35.233844	-116.102383	Oasis of Mara-Soda Lake	1.80	
D-19-430	R6	RIVERINE	0.853736	3443.4	MRPW	35.230176	-116.103858	Oasis of Mara-Soda Lake	10.80	19M14
D-19-431	R6	RIVERINE	0.006475	156.7	MRPW	35.226822	-116.106102	Oasis of Mara-Soda Lake	1.80	
D-19-432	R6	RIVERINE	0.005562	134.6	MRPW	35.226477	-116.106273	Oasis of Mara-Soda Lake	1.80	
D-19-433	R6	RIVERINE	0.007236	175.1	MRPW	35.227184	-116.105866	Oasis of Mara-Soda Lake	1.80	
D-19-434	R6	RIVERINE	0.002215	53.6	MRPW	35.227851	-116.105377	Oasis of Mara-Soda Lake	1.80	
D-19-435	R6	RIVERINE	0.003260	78.9	MRPW	35.228131	-116.105190	Oasis of Mara-Soda Lake	1.80	
D-19-436	R6	RIVERINE	0.004777	115.6	MRPW	35.228937	-116.105100	Oasis of Mara-Soda Lake	1.80	
D-19-437	R6	RIVERINE	0.005983	144.8	MRPW	35.229185	-116.105143	Oasis of Mara-Soda Lake	1.80	
D-19-438	R6	RIVERINE	0.004029	97.5	MRPW	35.229462	-116.104978	Oasis of Mara-Soda Lake	1.80	
D-19-439	R6	RIVERINE	0.002397	58.0	MRPW	35.230014	-116.104158	Oasis of Mara-Soda Lake	1.80	
D-19-440	R6	RIVERINE	0.006388	154.6	MRPW	35.232288	-116.103248	Oasis of Mara-Soda Lake	1.80	
D-19-441	R6	RIVERINE	0.005140	124.4	MRPW	35.232700	-116.103094	Oasis of Mara-Soda Lake	1.80	
D-19-442	R6	RIVERINE	0.004186	101.3	MRPW	35.234559	-116.101940	Oasis of Mara-Soda Lake	1.80	
D-19-443	R6	RIVERINE	0.195875	5688.2	MRPW	35.241682	-116.096971	Oasis of Mara-Soda Lake	1.50	19M8
D-19-444	R6	RIVERINE	0.116547	317.3	MRPW	35.248610	-116.093156	Oasis of Mara-Soda Lake	16.00	19M10
D-19-447	R6	RIVERINE	0.008946	216.5	MRPW	35.248268	-116.093943	Oasis of Mara-Soda Lake	1.80	
D-19-449	R6	RIVERINE	0.005822	140.9	MRPW	35.248343	-116.093849	Oasis of Mara-Soda Lake	1.80	
D-19-450	R6	RIVERINE	0.002640	63.9	MRPW	35.248440	-116.093570	Oasis of Mara-Soda Lake	1.80	
D-19-451	R6	RIVERINE	0.003413	82.6	MRPW	35.248425	-116.093648	Oasis of Mara-Soda Lake	1.80	
D-19-452	R6	RIVERINE	0.002802	67.8	MRPW	35.248360	-116.093708	Oasis of Mara-Soda Lake	1.80	
D-19-453	R6	RIVERINE	0.003174	76.8	MRPW	35.248275	-116.093626	Oasis of Mara-Soda Lake	1.80	
D-19-454	R6	RIVERINE	0.096745	294.7	MRPW	35.247900	-116.094397	Oasis of Mara-Soda Lake	14.30	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-456	R6	RIVERINE	0.017599	383.3	MRPW	35.246636	-116.094691	Oasis of Mara-Soda Lake	2.00	19D13
D-19-457	R6	RIVERINE	0.004752	115.0	MRPW	35.246789	-116.094743	Oasis of Mara-Soda Lake	1.80	
D-19-458	R6	RIVERINE	0.014103	341.3	MRPW	35.246140	-116.094940	Oasis of Mara-Soda Lake	1.80	
D-19-459	R6	RIVERINE	0.002645	64.0	MRPW	35.246207	-116.094520	Oasis of Mara-Soda Lake	1.80	
D-19-460	R6	RIVERINE	0.002376	57.5	MRPW	35.246066	-116.094502	Oasis of Mara-Soda Lake	1.80	
D-19-461	R6	RIVERINE	0.013550	327.9	MRPW	35.245921	-116.095071	Oasis of Mara-Soda Lake	1.80	
D-19-462	R6	RIVERINE	0.022459	326.1	MRPW	35.245714	-116.095248	Oasis of Mara-Soda Lake	3.00	19MD9
D-19-463	R6	RIVERINE	0.006380	154.4	MRPW	35.245675	-116.094909	Oasis of Mara-Soda Lake	1.80	
D-19-464	R6	RIVERINE	0.012959	313.6	MRPW	35.245527	-116.095320	Oasis of Mara-Soda Lake	1.80	
D-19-465	R6	RIVERINE	0.007674	185.7	MRPW	35.245401	-116.095636	Oasis of Mara-Soda Lake	1.80	
D-19-466	R6	RIVERINE	0.009413	227.8	MRPW	35.245265	-116.095268	Oasis of Mara-Soda Lake	1.80	
D-19-467	R6	RIVERINE	0.013905	336.5	MRPW	35.245244	-116.095479	Oasis of Mara-Soda Lake	1.80	
D-19-468	R6	RIVERINE	0.004244	102.7	MRPW	35.245215	-116.095856	Oasis of Mara-Soda Lake	1.80	
D-19-469	R6	RIVERINE	0.012901	312.2	MRPW	35.244970	-116.095625	Oasis of Mara-Soda Lake	1.80	
D-19-470	R6	RIVERINE	0.002583	62.5	MRPW	35.245001	-116.095683	Oasis of Mara-Soda Lake	1.80	
D-19-471	R6	RIVERINE	0.005500	133.1	MRPW	35.245106	-116.095835	Oasis of Mara-Soda Lake	1.80	
D-19-472	R6	RIVERINE	0.011839	286.5	MRPW	35.244808	-116.095749	Oasis of Mara-Soda Lake	1.80	
D-19-473	R6	RIVERINE	0.009186	222.3	MRPW	35.244746	-116.095931	Oasis of Mara-Soda Lake	1.80	
D-19-474	R6	RIVERINE	0.016017	387.6	MRPW	35.244434	-116.095917	Oasis of Mara-Soda Lake	1.80	
D-19-475	R6	RIVERINE	0.004012	97.1	MRPW	35.244488	-116.095906	Oasis of Mara-Soda Lake	1.80	
D-19-476	R6	RIVERINE	0.002678	64.8	MRPW	35.244519	-116.095506	Oasis of Mara-Soda Lake	1.80	
D-19-477	R6	RIVERINE	0.013070	316.3	MRPW	35.244158	-116.096038	Oasis of Mara-Soda Lake	1.80	
D-19-478	R6	RIVERINE	0.007101	309.3	MRPW	35.244012	-116.096136	Oasis of Mara-Soda Lake	1.00	19D5
D-19-479	R6	RIVERINE	0.012752	308.6	MRPW	35.243832	-116.096238	Oasis of Mara-Soda Lake	1.80	
D-19-480	R6	RIVERINE	0.004305	117.2	MRPW	35.243840	-116.095907	Oasis of Mara-Soda Lake	1.60	19D6
D-19-481	R6	RIVERINE	0.004764	115.3	MRPW	35.243940	-116.096094	Oasis of Mara-Soda Lake	1.80	
D-19-482	R6	RIVERINE	0.013471	326.0	MRPW	35.243612	-116.096452	Oasis of Mara-Soda Lake	1.80	
D-19-483	R6	RIVERINE	0.005686	137.6	MRPW	35.243577	-116.096469	Oasis of Mara-Soda Lake	1.80	
D-19-484	R6	RIVERINE	0.012397	300.0	MRPW	35.243186	-116.096657	Oasis of Mara-Soda Lake	1.80	
D-19-485	R6	RIVERINE	0.008467	204.9	MRPW	35.243321	-116.096707	Oasis of Mara-Soda Lake	1.80	
D-19-486	R6	RIVERINE	0.012054	291.7	MRPW	35.243358	-116.096524	Oasis of Mara-Soda Lake	1.80	
D-19-487	R6	RIVERINE	0.012244	296.3	MRPW	35.242947	-116.096780	Oasis of Mara-Soda Lake	1.80	
D-19-488	R6	RIVERINE	0.006826	165.2	MRPW	35.242958	-116.097041	Oasis of Mara-Soda Lake	1.80	
D-19-489	R6	RIVERINE	0.002802	67.8	MRPW	35.242918	-116.096833	Oasis of Mara-Soda Lake	1.80	
D-19-490	R6	RIVERINE	0.013752	332.8	MRPW	35.242685	-116.096839	Oasis of Mara-Soda Lake	1.80	
D-19-491	R6	RIVERINE	0.013872	335.7	MRPW	35.242625	-116.096985	Oasis of Mara-Soda Lake	1.80	
D-19-492	R6	RIVERINE	0.012207	295.4	MRPW	35.242294	-116.097149	Oasis of Mara-Soda Lake	1.80	
D-19-493	R6	RIVERINE	0.013529	327.4	MRPW	35.242123	-116.097290	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project

Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-494	R6	RIVERINE	0.001822	44.1	MRPW	35.242225	-116.097654	Oasis of Mara-Soda Lake	1.80	
D-19-495	R6	RIVERINE	0.008500	205.7	MRPW	35.241958	-116.097197	Oasis of Mara-Soda Lake	1.80	
D-19-496	R6	RIVERINE	0.006360	153.9	MRPW	35.242066	-116.097555	Oasis of Mara-Soda Lake	1.80	
D-19-497	R6	RIVERINE	0.006591	159.5	MRPW	35.241983	-116.097628	Oasis of Mara-Soda Lake	1.80	
D-19-498	R6	RIVERINE	0.011281	273.0	MRPW	35.241791	-116.097549	Oasis of Mara-Soda Lake	1.80	
D-19-499	R6	RIVERINE	0.009789	236.9	MRPW	35.241710	-116.097364	Oasis of Mara-Soda Lake	1.80	
D-19-500	R6	RIVERINE	0.012103	292.9	MRPW	35.241633	-116.097565	Oasis of Mara-Soda Lake	1.80	
D-19-501	R6	RIVERINE	0.002777	67.2	MRPW	35.241597	-116.097987	Oasis of Mara-Soda Lake	1.80	
D-19-502	R6	RIVERINE	0.004835	117.0	MRPW	35.241609	-116.097450	Oasis of Mara-Soda Lake	1.80	
D-19-503	R6	RIVERINE	0.004640	112.3	MRPW	35.241575	-116.097264	Oasis of Mara-Soda Lake	1.80	
D-19-504	R6	RIVERINE	0.012446	301.2	MRPW	35.241527	-116.097659	Oasis of Mara-Soda Lake	1.80	
D-19-505	R6	RIVERINE	0.012430	300.8	MRPW	35.241451	-116.097726	Oasis of Mara-Soda Lake	1.80	
D-19-506	R6	RIVERINE	0.013409	324.5	MRPW	35.241231	-116.097837	Oasis of Mara-Soda Lake	1.80	
D-19-507	R6	RIVERINE	0.008533	206.5	MRPW	35.241323	-116.097799	Oasis of Mara-Soda Lake	1.80	
D-19-508	R6	RIVERINE	0.004946	119.7	MRPW	35.241144	-116.098173	Oasis of Mara-Soda Lake	1.80	
D-19-509	R6	RIVERINE	0.002587	62.6	MRPW	35.241182	-116.097387	Oasis of Mara-Soda Lake	1.80	
D-19-510	R6	RIVERINE	0.002037	49.3	MRPW	35.241211	-116.097355	Oasis of Mara-Soda Lake	1.80	
D-19-511	R6	RIVERINE	0.013888	336.1	MRPW	35.240996	-116.097929	Oasis of Mara-Soda Lake	1.80	
D-19-512	R6	RIVERINE	0.008545	372.2	MRPW	35.240813	-116.098008	Oasis of Mara-Soda Lake	1.00	19D40
D-19-513	R6	RIVERINE	0.007369	321.0	MRPW	35.240616	-116.098167	Oasis of Mara-Soda Lake	1.00	19D38
D-19-514	R6	RIVERINE	0.010558	255.5	MRPW	35.240559	-116.098332	Oasis of Mara-Soda Lake	1.80	
D-19-515	R6	RIVERINE	0.001478	64.4	MRPW	35.240574	-116.097772	Oasis of Mara-Soda Lake	1.00	
D-19-516	R6	RIVERINE	0.013335	322.7	MRPW	35.240480	-116.098232	Oasis of Mara-Soda Lake	1.80	19D37
D-19-517	R6	RIVERINE	0.008355	202.2	MRPW	35.240342	-116.098150	Oasis of Mara-Soda Lake	1.80	
D-19-518	R6	RIVERINE	0.009764	236.3	MRPW	35.240286	-116.098295	Oasis of Mara-Soda Lake	1.80	
D-19-519	R6	RIVERINE	0.013471	326.0	MRPW	35.240181	-116.098436	Oasis of Mara-Soda Lake	1.80	
D-19-520	R6	RIVERINE	0.002901	70.2	MRPW	35.240222	-116.098193	Oasis of Mara-Soda Lake	1.80	
D-19-521	R6	RIVERINE	0.009508	230.1	MRPW	35.240125	-116.098460	Oasis of Mara-Soda Lake	1.80	
D-19-522	R6	RIVERINE	0.008227	199.1	MRPW	35.240072	-116.098246	Oasis of Mara-Soda Lake	1.80	
D-19-523	R6	RIVERINE	0.012748	308.5	MRPW	35.239864	-116.098591	Oasis of Mara-Soda Lake	1.80	
D-19-524	R6	RIVERINE	0.009360	226.5	MRPW	35.239778	-116.098801	Oasis of Mara-Soda Lake	1.80	
D-19-525	R6	RIVERINE	0.008050	194.8	MRPW	35.239728	-116.098730	Oasis of Mara-Soda Lake	1.80	
D-19-526	R6	RIVERINE	0.006467	156.5	MRPW	35.239662	-116.098360	Oasis of Mara-Soda Lake	1.80	
D-19-527	R6	RIVERINE	0.006227	150.7	MRPW	35.239753	-116.098446	Oasis of Mara-Soda Lake	1.80	
D-19-528	R6	RIVERINE	0.003256	78.8	MRPW	35.239580	-116.098370	Oasis of Mara-Soda Lake	1.80	
D-19-529	R6	RIVERINE	0.012417	300.5	MRPW	35.239341	-116.098902	Oasis of Mara-Soda Lake	1.80	
D-19-530	R6	RIVERINE	0.003289	79.6	MRPW	35.239324	-116.099002	Oasis of Mara-Soda Lake	1.80	
D-19-531	R6	RIVERINE	0.003876	93.8	MRPW	35.239262	-116.098976	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-532	R6	RIVERINE	0.012562	304.0	MRPW	35.239105	-116.099104	Oasis of Mara-Soda Lake	1.80	
D-19-533	R6	RIVERINE	0.002364	57.2	MRPW	35.239059	-116.099182	Oasis of Mara-Soda Lake	1.80	
D-19-534	R6	RIVERINE	0.010339	250.2	MRPW	35.238965	-116.099259	Oasis of Mara-Soda Lake	1.80	
D-19-535	R6	RIVERINE	0.007244	175.3	MRPW	35.238961	-116.099049	Oasis of Mara-Soda Lake	1.80	
D-19-536	R6	RIVERINE	0.008979	217.3	MRPW	35.238810	-116.099007	Oasis of Mara-Soda Lake	1.80	
D-19-537	R6	RIVERINE	0.008934	216.2	MRPW	35.238759	-116.098978	Oasis of Mara-Soda Lake	1.80	
D-19-538	R6	RIVERINE	0.011756	284.5	MRPW	35.238545	-116.099353	Oasis of Mara-Soda Lake	1.80	
D-19-539	R6	RIVERINE	0.004579	110.8	MRPW	35.238584	-116.099703	Oasis of Mara-Soda Lake	1.80	
D-19-540	R6	RIVERINE	0.005033	121.8	MRPW	35.238540	-116.099707	Oasis of Mara-Soda Lake	1.80	
D-19-541	R6	RIVERINE	0.010455	253.0	MRPW	35.238409	-116.099670	Oasis of Mara-Soda Lake	1.80	
D-19-542	R6	RIVERINE	0.005756	139.3	MRPW	35.238381	-116.099172	Oasis of Mara-Soda Lake	1.80	
D-19-543	R6	RIVERINE	0.009368	226.7	MRPW	35.238408	-116.099458	Oasis of Mara-Soda Lake	1.80	
D-19-544	R6	RIVERINE	0.008764	212.1	MRPW	35.238242	-116.099314	Oasis of Mara-Soda Lake	1.80	
D-19-545	R6	RIVERINE	0.004252	102.9	MRPW	35.238224	-116.099150	Oasis of Mara-Soda Lake	1.80	
D-19-546	R6	RIVERINE	0.013256	320.8	MRPW	35.237926	-116.099705	Oasis of Mara-Soda Lake	1.80	
D-19-547	R6	RIVERINE	0.003541	85.7	MRPW	35.237998	-116.099312	Oasis of Mara-Soda Lake	1.80	
D-19-548	R6	RIVERINE	0.013872	335.7	MRPW	35.237704	-116.099876	Oasis of Mara-Soda Lake	1.80	
D-19-549	R6	RIVERINE	0.004851	117.4	MRPW	35.237674	-116.099593	Oasis of Mara-Soda Lake	1.80	
D-19-550	R6	RIVERINE	0.002855	69.1	MRPW	35.237873	-116.099437	Oasis of Mara-Soda Lake	1.80	
D-19-551	R6	RIVERINE	0.009508	230.1	MRPW	35.237523	-116.099848	Oasis of Mara-Soda Lake	1.80	
D-19-552	R6	RIVERINE	0.006446	156.0	MRPW	35.237299	-116.099851	Oasis of Mara-Soda Lake	1.80	
D-19-553	R6	RIVERINE	0.005603	135.6	MRPW	35.237214	-116.099890	Oasis of Mara-Soda Lake	1.80	
D-19-554	R6	RIVERINE	0.011360	274.9	MRPW	35.237120	-116.100205	Oasis of Mara-Soda Lake	1.80	
D-19-555	R6	RIVERINE	0.005450	131.9	MRPW	35.237109	-116.099899	Oasis of Mara-Soda Lake	1.80	
D-19-556	R6	RIVERINE	0.005471	132.4	MRPW	35.237100	-116.100504	Oasis of Mara-Soda Lake	1.80	
D-19-557	R6	RIVERINE	0.012847	310.9	MRPW	35.236872	-116.100351	Oasis of Mara-Soda Lake	1.80	
D-19-558	R6	RIVERINE	0.003847	93.1	MRPW	35.236874	-116.100020	Oasis of Mara-Soda Lake	1.80	
D-19-559	R6	RIVERINE	0.011194	270.9	MRPW	35.236652	-116.100425	Oasis of Mara-Soda Lake	1.80	
D-19-560	R6	RIVERINE	0.003607	87.3	MRPW	35.236617	-116.100143	Oasis of Mara-Soda Lake	1.80	
D-19-561	R6	RIVERINE	0.004512	109.2	MRPW	35.236742	-116.100090	Oasis of Mara-Soda Lake	1.80	
D-19-562	R6	RIVERINE	0.009455	228.8	MRPW	35.236423	-116.100538	Oasis of Mara-Soda Lake	1.80	
D-19-563	R6	RIVERINE	0.012814	310.1	MRPW	35.236188	-116.100637	Oasis of Mara-Soda Lake	1.80	
D-19-564	R6	RIVERINE	0.013368	323.5	MRPW	35.236182	-116.100778	Oasis of Mara-Soda Lake	1.80	
D-19-565	R6	RIVERINE	0.006368	154.1	MRPW	35.235947	-116.100642	Oasis of Mara-Soda Lake	1.80	
D-19-566	R6	RIVERINE	0.013508	326.9	MRPW	35.236141	-116.100818	Oasis of Mara-Soda Lake	1.80	
D-19-567	R6	RIVERINE	0.011740	284.1	MRPW	35.235659	-116.101043	Oasis of Mara-Soda Lake	1.80	
D-19-568	R6	RIVERINE	0.012008	290.6	MRPW	35.235581	-116.101164	Oasis of Mara-Soda Lake	1.80	
D-19-569	R6	RIVERINE	0.012942	313.2	MRPW	35.235474	-116.101133	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-570	R6	RIVERINE	0.014145	342.3	MRPW	35.235356	-116.101230	Oasis of Mara-Soda Lake	1.80	
D-19-571	R6	RIVERINE	0.004388	106.2	MRPW	35.235412	-116.101518	Oasis of Mara-Soda Lake	1.80	
D-19-572	R6	RIVERINE	0.013186	319.1	MRPW	35.235132	-116.101302	Oasis of Mara-Soda Lake	1.80	
D-19-573	R6	RIVERINE	0.007579	183.4	MRPW	35.235213	-116.101310	Oasis of Mara-Soda Lake	1.80	
D-19-574	R6	RIVERINE	0.007847	189.9	MRPW	35.235093	-116.101628	Oasis of Mara-Soda Lake	1.80	
D-19-575	R6	RIVERINE	0.014310	346.3	MRPW	35.235021	-116.101419	Oasis of Mara-Soda Lake	1.80	
D-19-576	R6	RIVERINE	0.008583	207.7	MRPW	35.234955	-116.101356	Oasis of Mara-Soda Lake	1.80	
D-19-577	R6	RIVERINE	0.011731	283.9	MRPW	35.234806	-116.101525	Oasis of Mara-Soda Lake	1.80	
D-19-578	R6	RIVERINE	0.003917	94.8	MRPW	35.234907	-116.101188	Oasis of Mara-Soda Lake	1.80	
D-19-579	R6	RIVERINE	0.010533	254.9	MRPW	35.236581	-116.100646	Oasis of Mara-Soda Lake	1.80	
D-19-580	R6	RIVERINE	0.011302	273.5	MRPW	35.235997	-116.100973	Oasis of Mara-Soda Lake	1.80	
D-19-581	R6	RIVERINE	0.014000	338.8	MRPW	35.235780	-116.100968	Oasis of Mara-Soda Lake	1.80	
D-19-582	R6	RIVERINE	0.004351	105.3	MRPW	35.236156	-116.100886	Oasis of Mara-Soda Lake	1.80	
D-19-583	R6	RIVERINE	0.006054	146.5	MRPW	35.236756	-116.100165	Oasis of Mara-Soda Lake	1.80	
D-19-584	R6	RIVERINE	0.006570	159.0	MRPW	35.236771	-116.100215	Oasis of Mara-Soda Lake	1.80	
D-19-585	R6	RIVERINE	0.005045	122.1	MRPW	35.237078	-116.100219	Oasis of Mara-Soda Lake	1.80	
D-19-586	R6	RIVERINE	0.004690	113.5	MRPW	35.237261	-116.100399	Oasis of Mara-Soda Lake	1.80	
D-19-587	R6	RIVERINE	0.006624	160.3	MRPW	35.238604	-116.099073	Oasis of Mara-Soda Lake	1.80	
D-19-588	R6	RIVERINE	0.001207	29.2	MRPW	35.239350	-116.099165	Oasis of Mara-Soda Lake	1.80	
D-19-589	R6	RIVERINE	0.002645	64.0	MRPW	35.240336	-116.098584	Oasis of Mara-Soda Lake	1.80	
D-19-602	R6	RIVERINE	0.042277	575.5	MRPW	35.256583	-116.085139	Oasis of Mara-Soda Lake	3.20	
D-19-603	R6	RIVERINE	0.038075	518.3	MRPW	35.257661	-116.083054	Oasis of Mara-Soda Lake	3.20	
D-19-605	R6	RIVERINE	0.001554	37.6	MRPW	35.257950	-116.082468	Oasis of Mara-Soda Lake	1.80	
D-19-606	R6	RIVERINE	0.008612	208.4	MRPW	35.258242	-116.082648	Oasis of Mara-Soda Lake	1.80	
D-19-607	R6	RIVERINE	0.006682	161.7	MRPW	35.258011	-116.082647	Oasis of Mara-Soda Lake	1.80	
D-19-608	R6	RIVERINE	0.004335	104.9	MRPW	35.258143	-116.082569	Oasis of Mara-Soda Lake	1.80	
D-19-611	R6	RIVERINE	0.065983	898.2	MRPW	35.258818	-116.081206	Oasis of Mara-Soda Lake	3.20	
D-19-612	R6	RIVERINE	0.008785	212.6	MRPW	35.258950	-116.081858	Oasis of Mara-Soda Lake	1.80	
D-19-613	R6	RIVERINE	0.014244	344.7	MRPW	35.258752	-116.081863	Oasis of Mara-Soda Lake	1.80	
D-19-614	R6	RIVERINE	0.004731	114.5	MRPW	35.258396	-116.082130	Oasis of Mara-Soda Lake	1.80	
D-19-615	R6	RIVERINE	0.002645	64.0	MRPW	35.258837	-116.081883	Oasis of Mara-Soda Lake	1.80	
D-19-616	R6	RIVERINE	0.002368	57.3	MRPW	35.258898	-116.081764	Oasis of Mara-Soda Lake	1.80	
D-19-617	R6	RIVERINE	0.006818	165.0	MRPW	35.259610	-116.080987	Oasis of Mara-Soda Lake	1.80	
D-19-618	R6	RIVERINE	0.004674	113.1	MRPW	35.259164	-116.081287	Oasis of Mara-Soda Lake	1.80	
D-19-619	R6	RIVERINE	0.011983	290.0	MRPW	35.259264	-116.081539	Oasis of Mara-Soda Lake	1.80	
D-19-620	R6	RIVERINE	0.012533	303.3	MRPW	35.259388	-116.081122	Oasis of Mara-Soda Lake	1.80	
D-19-622	R6	RIVERINE	0.009851	238.4	MRPW	35.259637	-116.080549	Oasis of Mara-Soda Lake	1.80	
D-19-623	R6	RIVERINE	0.015124	366.0	MRPW	35.260418	-116.079318	Oasis of Mara-Soda Lake	1.80	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-19-626	R6	RIVERINE	0.008169	197.7	MRPW	35.260701	-116.078805	Oasis of Mara-Soda Lake	1.80	
D-19-627	R6	RIVERINE	0.006260	151.5	MRPW	35.261218	-116.078348	Oasis of Mara-Soda Lake	1.80	
D-19-628	R6	RIVERINE	0.005880	142.3	MRPW	35.260518	-116.078478	Oasis of Mara-Soda Lake	1.80	
D-19-629	R6	RIVERINE	0.158861	692.0	MRPW	35.260758	-116.078575	Oasis of Mara-Soda Lake	10.00	
D-19-630	R6	RIVERINE	0.035314	854.6	MRPW	35.261463	-116.077526	Oasis of Mara-Soda Lake	1.80	
D-19-632	R6	RIVERINE	0.062132	1503.6	MRPW	35.262011	-116.076553	Oasis of Mara-Soda Lake	1.80	
D-19-633	R6	RIVERINE	0.011083	268.2	MRPW	35.262940	-116.075507	Oasis of Mara-Soda Lake	1.80	
D-19-634	R6	RIVERINE	0.011273	272.8	MRPW	35.262669	-116.075667	Oasis of Mara-Soda Lake	1.80	
D-19-635	R6	RIVERINE	0.005860	141.8	MRPW	35.262725	-116.075843	Oasis of Mara-Soda Lake	1.80	
D-19-636	R6	RIVERINE	0.015727	380.6	MRPW	35.261403	-116.077716	Oasis of Mara-Soda Lake	1.80	
D-19-638	R6	RIVERINE	0.009811	125.7	MRPW	35.246853	-116.094145	Oasis of Mara-Soda Lake	3.40	
D-19-639	R6	RIVERINE	0.007860	100.7	MRPW	35.246949	-116.094140	Oasis of Mara-Soda Lake	3.40	19MD12
D-19-640	R6	RIVERINE	0.002298	38.5	MRPW	35.243719	-116.095885	Oasis of Mara-Soda Lake	2.60	19D7
D-19-641	R6	RIVERINE	0.019570	266.4	MRPW	35.224615	-116.107559	Oasis of Mara-Soda Lake	3.20	
D-19-642	R6	RIVERINE	0.080626	245.6	MRPW	35.221745	-116.109216	Oasis of Mara-Soda Lake	14.30	
D-19-648	R6	RIVERINE	0.010822	261.9	MRPW	35.200106	-116.123637	Oasis of Mara-Soda Lake	1.80	
D-19-649	R6	RIVERINE	0.233182	923.4	MRPW	35.200426	-116.122531	Oasis of Mara-Soda Lake	11.00	
D-19-650	R6	RIVERINE	0.010140	245.4	MRPW	35.199961	-116.123861	Oasis of Mara-Soda Lake	1.80	
D-19-651	R6	RIVERINE	0.001540	67.1	MRPW	35.197703	-116.127932	Oasis of Mara-Soda Lake	1.00	
D-19-652	R6	RIVERINE	0.002066	60.0	MRPW	35.208866	-116.117016	Oasis of Mara-Soda Lake	1.50	
D-19-653	R6	RIVERINE	0.011702	94.4	MRPW	35.209864	-116.116414	Oasis of Mara-Soda Lake	5.40	
D-19-654	R6	RIVERINE	0.001793	43.4	MRPW	35.217641	-116.111567	Oasis of Mara-Soda Lake	1.80	
D-19-655	R6	RIVERINE	0.037941	236.1	MRPW	35.218881	-116.110935	Oasis of Mara-Soda Lake	7.00	
D-19-656	R6	RIVERINE	0.199633	434.8	MRPW	35.247848	-116.093743	Oasis of Mara-Soda Lake	20.00	
D-19-660	R6	RIVERINE	0.055813	2431.2	MRPW	35.251946	-116.090812	Oasis of Mara-Soda Lake	1.00	19D41
D-20-1	R6	RIVERINE	0.015955	534.6	MRPW	35.316486	-115.995111	Otto Mountain-Silver Lake	1.30	
D-20-2	R6	RIVERINE	0.014880	498.6	MRPW	35.316330	-115.996107	Otto Mountain-Silver Lake	1.30	
D-20-3	R6	RIVERINE	0.016847	564.5	MRPW	35.316658	-115.995591	Otto Mountain-Silver Lake	1.30	
D-20-4	R6	RIVERINE	0.000824	27.6	MRPW	35.316484	-115.995992	Otto Mountain-Silver Lake	1.30	
D-20-5	R6	RIVERINE	0.005026	168.4	MRPW	35.316801	-115.995527	Otto Mountain-Silver Lake	1.30	
D-20-6	R6	RIVERINE	0.007995	267.9	MRPW	35.316975	-115.995310	Otto Mountain-Silver Lake	1.30	
D-20-7	R6	RIVERINE	0.008604	288.3	MRPW	35.317161	-115.994826	Otto Mountain-Silver Lake	1.30	
D-20-8	R6	RIVERINE	0.022887	766.9	MRPW	35.317948	-115.993485	Otto Mountain-Silver Lake	1.30	
D-20-9	R6	RIVERINE	0.008458	283.4	MRPW	35.318079	-115.993641	Otto Mountain-Silver Lake	1.30	
D-20-10	R6	RIVERINE	0.006533	218.9	MRPW	35.318371	-115.992391	Otto Mountain-Silver Lake	1.30	
D-20-11	R6	RIVERINE	0.009759	327.0	MRPW	35.318633	-115.992523	Otto Mountain-Silver Lake	1.30	
D-20-12	R6	RIVERINE	0.032627	947.5	MRPW	35.319288	-115.991444	Otto Mountain-Silver Lake	1.50	20D1
D-20-13	R6	RIVERINE	0.016566	555.1	MRPW	35.318804	-115.992071	Otto Mountain-Silver Lake	1.30	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point		
D-20-14	R6	RIVERINE	0.006793	295.9	MRPW	35.319860	-115.989759	Otto Mountain-Silver Lake	1.00	20D2		
D-20-15	R6	RIVERINE	0.022455	752.4	MRPW	35.317546	-115.993733	Otto Mountain-Silver Lake	1.30			
D-21-1	R6	RIVERINE	0.018200	792.8	MRPW	35.320067	-115.989621	Hytens Well	1.00	21D8		
D-21-2	R6	RIVERINE	0.004930	165.2	MRPW	35.319895	-115.990544	Hytens Well	1.30			
D-21-3	R6	RIVERINE	0.069708	607.3	MRPW	35.320384	-115.989727	Hytens Well	5.00			
D-21-4	R6	RIVERINE	0.016157	541.4	MRPW	35.320532	-115.988573	Hytens Well	1.30			
D-21-5	R6	RIVERINE	0.005512	184.7	MRPW	35.320169	-115.989917	Hytens Well	1.30			
D-21-6	R6	RIVERINE	0.007192	241.0	MRPW	35.320600	-115.988930	Hytens Well	1.30			
D-21-9	R6	RIVERINE	0.013316	446.2	MRPW	35.320998	-115.988217	Hytens Well	1.30			
D-21-10	R6	RIVERINE	0.022219	744.5	MRPW	35.321912	-115.986900	Hytens Well	1.30			
D-21-13	R6	RIVERINE	0.012553	273.4	MRPW	35.322494	-115.986304	Hytens Well	2.00			
D-21-14	R6	RIVERINE	0.009299	311.6	MRPW	35.322764	-115.985683	Hytens Well	1.30			
D-21-15	R6	RIVERINE	0.011465	249.7	MRPW	35.322754	-115.985508	Hytens Well	2.00			
D-21-16	R6	RIVERINE	0.166787	2906.1	MRPW	35.323402	-115.983995	Hytens Well	2.50	21M2		
D-21-18	R6	RIVERINE	0.020216	677.4	MRPW	35.323254	-115.985065	Hytens Well	1.30			
D-21-19	R6	RIVERINE	0.009058	303.5	MRPW	35.323806	-115.984395	Hytens Well	1.30			
D-21-20	R6	RIVERINE	0.004869	303.0	MRPW	35.324270	-115.983374	Hytens Well	0.70	21D5		
D-21-21	R6	RIVERINE	0.005579	347.2	MRPW	35.324125	-115.983854	Hytens Well	0.70	21D6		
D-21-22	R6	RIVERINE	0.022759	762.6	MRPW	35.324985	-115.982270	Hytens Well	1.30			
D-21-23	R6	RIVERINE	0.011666	390.9	MRPW	35.324929	-115.982623	Hytens Well	1.30			
D-21-24	R6	RIVERINE	0.003298	110.5	MRPW	35.325134	-115.982248	Hytens Well	1.30			
D-21-25	R6	RIVERINE	0.023505	787.6	MRPW	35.325355	-115.981188	Hytens Well	1.30			
D-21-26	R6	RIVERINE	0.018429	1146.8	MRPW	35.324031	-115.983884	Hytens Well	0.70	21D7		
D-21-27	R6	RIVERINE	0.015298	512.6	MRPW	35.325819	-115.980981	Hytens Well	1.30			
D-21-28	R6	RIVERINE	0.027874	934.0	MRPW	35.326606	-115.979481	Hytens Well	1.30			
D-21-29	R6	RIVERINE	0.020646	691.8	MRPW	35.326706	-115.979782	Hytens Well	1.30			
D-21-30	R6	RIVERINE	0.024075	806.7	MRPW	35.326635	-115.979253	Hytens Well	1.30			
D-21-31	R6	RIVERINE	0.013865	464.6	MRPW	35.327527	-115.978005	Hytens Well	1.30			
D-21-32	R6	RIVERINE	0.012487	418.4	MRPW	35.327515	-115.978219	Hytens Well	1.30			
D-21-33	R6	RIVERINE	0.065611	571.6	MRPW	35.329029	-115.975646	Hytens Well	5.00			
D-21-34	R6	RIVERINE	0.008729	292.5	MRPW	35.329197	-115.975814	Hytens Well	1.30			
D-21-35	R6	RIVERINE	0.003020	101.2	MRPW	35.328327	-115.976966	Hytens Well	1.30			
D-21-36	R6	RIVERINE	0.021216	710.9	MRPW	35.328217	-115.977000	Hytens Well	1.30			
D-21-39	R6	RIVERINE	0.019255	645.2	MRPW	35.331474	-115.971772	Hytens Well	1.30			
D-21-40	R6	RIVERINE	0.014015	469.6	MRPW	35.331885	-115.971041	Hytens Well	1.30			
D-21-43	R6	RIVERINE	0.013101	439.0	MRPW	35.332514	-115.970446	Hytens Well	1.30			
D-21-44	R6	RIVERINE	0.005763	193.1	MRPW	35.332521	-115.970575	Hytens Well	1.30			
D-21-45	R6	RIVERINE	0.013540	453.7	MRPW	35.332842	-115.969814	Hytens Well	1.30			

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-21-46	R6	RIVERINE	0.008971	300.6	MRPW	35.332760	-115.969615	Hytens Well	1.30	
D-21-47	R6	RIVERINE	0.011242	376.7	MRPW	35.333123	-115.969096	Hytens Well	1.30	
D-21-48	R6	RIVERINE	0.010598	355.1	MRPW	35.332954	-115.969933	Hytens Well	1.30	
D-21-49	R6	RIVERINE	0.021013	704.1	MRPW	35.333536	-115.968383	Hytens Well	1.30	
D-21-50	R6	RIVERINE	0.026090	874.2	MRPW	35.333736	-115.968279	Hytens Well	1.30	
D-21-51	R6	RIVERINE	0.015185	508.8	MRPW	35.334159	-115.967725	Hytens Well	1.30	
D-21-52	R6	RIVERINE	0.013543	453.8	MRPW	35.333918	-115.968187	Hytens Well	1.30	
D-21-53	R6	RIVERINE	0.024573	823.4	MRPW	35.334555	-115.966638	Hytens Well	1.30	
D-21-54	R6	RIVERINE	0.018993	636.4	MRPW	35.334747	-115.966650	Hytens Well	1.30	
D-21-55	R6	RIVERINE	0.014277	478.4	MRPW	35.335032	-115.966552	Hytens Well	1.30	
D-21-56	R6	RIVERINE	0.011985	401.6	MRPW	35.335382	-115.965911	Hytens Well	1.30	
D-21-57	R6	RIVERINE	0.006112	204.8	MRPW	35.335791	-115.965192	Hytens Well	1.30	
D-21-58	R6	RIVERINE	0.008514	285.3	MRPW	35.335898	-115.965038	Hytens Well	1.30	
D-21-59	R6	RIVERINE	0.007243	242.7	MRPW	35.336035	-115.964943	Hytens Well	1.30	
D-21-60	R6	RIVERINE	0.022392	487.7	MRPW	35.336156	-115.964346	Hytens Well	2.00	
D-21-61	R6	RIVERINE	0.025491	555.2	MRPW	35.336423	-115.963990	Hytens Well	2.00	
D-21-63	R6	RIVERINE	0.016178	542.1	MRPW	35.336463	-115.964104	Hytens Well	1.30	
D-21-64	R6	RIVERINE	0.034368	1151.6	MRPW	35.337409	-115.962508	Hytens Well	1.30	
D-21-65	R6	RIVERINE	0.012896	432.1	MRPW	35.337603	-115.961680	Hytens Well	1.30	
D-21-66	R6	RIVERINE	0.004306	144.3	MRPW	35.337288	-115.962974	Hytens Well	1.30	
D-21-67	R6	RIVERINE	0.004903	164.3	MRPW	35.337858	-115.962027	Hytens Well	1.30	
D-21-68	R6	RIVERINE	0.005664	189.8	MRPW	35.338208	-115.961445	Hytens Well	1.30	
D-21-69	R6	RIVERINE	0.009834	329.5	MRPW	35.338029	-115.961741	Hytens Well	1.30	
D-21-70	R6	RIVERINE	0.007085	237.4	MRPW	35.337264	-115.962709	Hytens Well	1.30	
D-21-72	R6	RIVERINE	0.026310	881.6	MRPW	35.337939	-115.960901	Hytens Well	1.30	
D-21-73	R6	RIVERINE	0.022338	748.5	MRPW	35.338739	-115.960128	Hytens Well	1.30	
D-21-74	R6	RIVERINE	0.011296	378.5	MRPW	35.339021	-115.959843	Hytens Well	1.30	
D-21-75	R6	RIVERINE	0.018056	605.0	MRPW	35.338935	-115.960195	Hytens Well	1.30	
D-21-77	R6	RIVERINE	0.013173	441.4	MRPW	35.339964	-115.958675	Hytens Well	1.30	
D-21-78	R6	RIVERINE	0.219304	1364.7	MRPW	35.340825	-115.957266	Hytens Well	7.00	
D-21-79	R6	RIVERINE	0.009893	331.5	MRPW	35.341220	-115.956499	Hytens Well	1.30	
D-21-80	R6	RIVERINE	0.018617	623.8	MRPW	35.341594	-115.955613	Hytens Well	1.30	
D-21-81	R6	RIVERINE	0.007625	255.5	MRPW	35.342051	-115.955237	Hytens Well	1.30	
D-21-83	R6	RIVERINE	0.014194	475.6	MRPW	35.342485	-115.954419	Hytens Well	1.30	
D-21-84	R6	RIVERINE	0.009189	307.9	MRPW	35.342840	-115.954017	Hytens Well	1.30	
D-21-85	R6	RIVERINE	0.043172	1446.6	MRPW	35.343850	-115.952062	Hytens Well	1.30	
D-21-86	R6	RIVERINE	0.024230	811.9	MRPW	35.344210	-115.951847	Hytens Well	1.30	
D-21-87	R6	RIVERINE	0.018455	618.4	MRPW	35.345562	-115.949630	Hytens Well	1.30	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-21-88	R6	RIVERINE	0.016122	540.2	MRPW	35.347019	-115.947344	Hytens Well	1.30	
D-21-89	R6	RIVERINE	0.016199	542.8	MRPW	35.347187	-115.946982	Hytens Well	1.30	
D-21-90	R6	RIVERINE	0.009819	329.0	MRPW	35.348256	-115.945276	Hytens Well	1.30	
D-21-99	R6	RIVERINE	0.094201	586.2	MRPW	35.339540	-115.959026	Hytens Well	7.00	
D-21-100	R6	RIVERINE	0.119502	1041.1	MRPW	35.340551	-115.957040	Hytens Well	5.00	
D-21-101	R6	RIVERINE	0.009198	308.2	MRPW	35.339350	-115.959472	Hytens Well	1.30	
D-21-102	R6	RIVERINE	0.001297	22.6	MRPW	35.324640	-115.981998	Hytens Well	2.50	
D-21-104	R6	RIVERINE	0.029633	645.4	MRPW	35.323449	-115.984305	Hytens Well	2.00	21D4
D-21-105	R6	RIVERINE	0.001104	48.1	MRPW	35.320069	-115.989255	Hytens Well	1.00	
D-21-110	R6	RIVERINE	0.249757	5439.7	MRPW	35.346436	-115.947598	Hytens Well	2.00	21D1
D-21-111	R6	RIVERINE	0.000810	70.6	MRPW	35.331689	-115.970944	Hytens Well	0.50	
D-21-112	R6	RIVERINE	0.001910	83.2	MRPW	35.339278	-115.958760	Hytens Well	1.00	
D-22-2	R6	RIVERINE	0.179545	434.5	MRPW	35.266924	-116.068918	Halloran Spring-Halloran Wash	18.00	
D-22-11	R6	RIVERINE	0.066988	583.6	MRPW	35.273367	-116.059002	Halloran Spring-Halloran Wash	5.00	22MD1
D-22-14	R6	RIVERINE	0.010461	284.8	MRPW	35.275624	-116.055514	Halloran Spring-Halloran Wash	1.60	
D-22-15	R6	RIVERINE	0.063842	1738.1	MRPW	35.276488	-116.053357	Halloran Spring-Halloran Wash	1.60	
D-22-19	R6	RIVERINE	0.146818	355.3	MRPW	35.284034	-116.046344	Halloran Spring-Halloran Wash	18.00	
D-22-25	R6	RIVERINE	0.016566	451.0	MRPW	35.285888	-116.044017	Halloran Spring-Halloran Wash	1.60	
D-22-26	R6	RIVERINE	0.138602	1207.5	MRPW	35.287068	-116.042658	Halloran Spring-Halloran Wash	5.00	
D-22-29	R6	RIVERINE	0.014474	126.1	MRPW	35.287526	-116.042080	Halloran Spring-Halloran Wash	5.00	
D-22-35	R6	RIVERINE	0.077720	677.1	MRPW	35.289271	-116.039289	Halloran Spring-Halloran Wash	5.00	
D-22-36	R6	RIVERINE	0.009315	253.6	MRPW	35.289536	-116.038518	Halloran Spring-Halloran Wash	1.60	
D-22-37	R6	RIVERINE	0.012720	346.3	MRPW	35.290405	-116.037406	Halloran Spring-Halloran Wash	1.60	
D-22-38	R6	RIVERINE	0.031738	276.5	MRPW	35.290154	-116.037872	Halloran Spring-Halloran Wash	5.00	
D-22-39	R6	RIVERINE	0.006898	187.8	MRPW	35.290646	-116.037151	Halloran Spring-Halloran Wash	1.60	
D-22-40	R6	RIVERINE	0.007313	199.1	MRPW	35.291329	-116.036095	Halloran Spring-Halloran Wash	1.60	
D-22-41	R6	RIVERINE	0.012702	345.8	MRPW	35.291889	-116.035010	Halloran Spring-Halloran Wash	1.60	
D-22-42	R6	RIVERINE	0.045936	1250.6	MRPW	35.292785	-116.033118	Halloran Spring-Halloran Wash	1.60	
D-22-43	R6	RIVERINE	0.013363	363.8	MRPW	35.293103	-116.033193	Halloran Spring-Halloran Wash	1.60	
D-22-44	R6	RIVERINE	0.011343	308.8	MRPW	35.293792	-116.031621	Halloran Spring-Halloran Wash	1.60	
D-22-45	R6	RIVERINE	0.013565	369.3	MRPW	35.293984	-116.030919	Halloran Spring-Halloran Wash	1.60	
D-22-46	R6	RIVERINE	0.006057	164.9	MRPW	35.294220	-116.031528	Halloran Spring-Halloran Wash	1.60	
D-22-47	R6	RIVERINE	0.045693	1244.0	MRPW	35.295186	-116.029717	Halloran Spring-Halloran Wash	1.60	
D-22-48	R6	RIVERINE	0.251022	2186.9	MRPW	35.297381	-116.026256	Halloran Spring-Halloran Wash	5.00	
D-22-51	R6	RIVERINE	0.004588	124.9	MRPW	35.296165	-116.027511	Halloran Spring-Halloran Wash	1.60	
D-22-52	R6	RIVERINE	0.011324	308.3	MRPW	35.295451	-116.029475	Halloran Spring-Halloran Wash	1.60	
D-22-53	R6	RIVERINE	0.016132	439.2	MRPW	35.299410	-116.022845	Halloran Spring-Halloran Wash	1.60	
D-22-54	R6	RIVERINE	0.014329	390.1	MRPW	35.299747	-116.022193	Halloran Spring-Halloran Wash	1.60	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-22-55	R6	RIVERINE	0.007500	204.2	MRPW	35.299767	-116.022293	Halloran Spring-Halloran Wash	1.60	
D-22-56	R6	RIVERINE	0.031534	858.5	MRPW	35.300445	-116.021025	Halloran Spring-Halloran Wash	1.60	
D-22-57	R6	RIVERINE	0.012037	327.7	MRPW	35.300482	-116.021312	Halloran Spring-Halloran Wash	1.60	
D-22-58	R6	RIVERINE	0.053340	464.7	MRPW	35.301194	-116.019899	Halloran Spring-Halloran Wash	5.00	
D-22-59	R6	RIVERINE	0.002615	71.2	MRPW	35.301242	-116.020248	Halloran Spring-Halloran Wash	1.60	
D-22-60	R6	RIVERINE	0.148427	1293.1	MRPW	35.302568	-116.017731	Halloran Spring-Halloran Wash	5.00	
D-22-61	R6	RIVERINE	0.039050	340.2	MRPW	35.303918	-116.015616	Halloran Spring-Halloran Wash	5.00	
D-22-64	R6	RIVERINE	0.196935	1715.7	MRPW	35.305303	-116.013631	Halloran Spring-Halloran Wash	5.00	
D-22-65	R6	RIVERINE	0.084045	732.2	MRPW	35.304693	-116.014674	Halloran Spring-Halloran Wash	5.00	
D-22-66	R6	RIVERINE	0.039122	1065.1	MRPW	35.307186	-116.010556	Halloran Spring-Halloran Wash	1.60	
D-22-67	R6	RIVERINE	0.021275	579.2	MRPW	35.306881	-116.010570	Halloran Spring-Halloran Wash	1.60	
D-22-68	R6	RIVERINE	0.023574	641.8	MRPW	35.307193	-116.010356	Halloran Spring-Halloran Wash	1.60	
D-22-69	R6	RIVERINE	0.033450	971.4	MRPW	35.308061	-116.009137	Halloran Spring-Halloran Wash	1.50	22D5
D-22-70	R6	RIVERINE	0.010501	285.9	MRPW	35.308307	-116.008883	Halloran Spring-Halloran Wash	1.60	
D-22-71	R6	RIVERINE	0.014075	383.2	MRPW	35.308024	-116.009469	Halloran Spring-Halloran Wash	1.60	
D-22-73	R6	RIVERINE	0.014141	385.0	MRPW	35.308018	-116.009146	Halloran Spring-Halloran Wash	1.60	
D-22-74	R6	RIVERINE	0.047670	415.3	MRPW	35.309251	-116.007099	Halloran Spring-Halloran Wash	5.00	
D-22-75	R6	RIVERINE	0.008007	218.0	MRPW	35.309468	-116.007261	Halloran Spring-Halloran Wash	1.60	
D-22-76	R6	RIVERINE	0.017781	484.1	MRPW	35.309727	-116.006285	Halloran Spring-Halloran Wash	1.60	
D-22-77	R6	RIVERINE	0.092757	808.1	MRPW	35.311152	-116.004042	Halloran Spring-Halloran Wash	5.00	
D-22-78	R6	RIVERINE	0.010850	295.4	MRPW	35.311377	-116.004070	Halloran Spring-Halloran Wash	1.60	
D-22-79	R6	RIVERINE	0.020757	565.1	MRPW	35.311663	-116.003465	Halloran Spring-Halloran Wash	1.60	
D-22-80	R6	RIVERINE	0.016371	445.7	MRPW	35.311993	-116.002970	Halloran Spring-Halloran Wash	1.60	
D-22-81	R6	RIVERINE	0.006681	181.9	MRPW	35.311731	-116.003065	Halloran Spring-Halloran Wash	1.60	
D-22-84	R6	RIVERINE	0.027252	791.4	MRPW	35.313360	-116.000442	Halloran Spring-Halloran Wash	1.50	22D6
D-22-85	R6	RIVERINE	0.016713	455.0	MRPW	35.313310	-116.000842	Halloran Spring-Halloran Wash	1.60	
D-22-86	R6	RIVERINE	0.019618	534.1	MRPW	35.313652	-116.000595	Halloran Spring-Halloran Wash	1.60	
D-22-87	R6	RIVERINE	0.199091	722.7	MRPW	35.314401	-115.999035	Halloran Spring-Halloran Wash	12.00	
D-22-88	R6	RIVERINE	0.033344	907.8	MRPW	35.313845	-115.999865	Halloran Spring-Halloran Wash	1.60	
D-22-90	R6	RIVERINE	0.024735	828.8	MRPW	35.314884	-115.998542	Halloran Spring-Halloran Wash	1.30	
D-22-92	R6	RIVERINE	0.031969	1071.2	MRPW	35.315338	-115.997405	Halloran Spring-Halloran Wash	1.30	
D-22-93	R6	RIVERINE	0.010066	337.3	MRPW	35.315333	-115.997631	Halloran Spring-Halloran Wash	1.30	
D-22-96	R6	RIVERINE	0.002235	74.9	MRPW	35.315758	-115.996769	Halloran Spring-Halloran Wash	1.30	
D-22-97	R6	RIVERINE	0.053398	465.2	MRPW	35.350969	-115.940645	Halloran Spring-Halloran Wash	5.00	
D-22-98	R6	RIVERINE	0.033689	293.5	MRPW	35.351338	-115.940224	Halloran Spring-Halloran Wash	5.00	
D-22-99	R6	RIVERINE	0.028903	251.8	MRPW	35.350965	-115.940396	Halloran Spring-Halloran Wash	5.00	
D-22-100	R6	RIVERINE	0.006601	179.7	MRPW	35.351652	-115.940079	Halloran Spring-Halloran Wash	1.60	
D-22-101	R6	RIVERINE	0.008823	240.2	MRPW	35.351537	-115.939957	Halloran Spring-Halloran Wash	1.60	

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Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-22-104	R6	RIVERINE	0.008246	224.5	MRPW	35.351763	-115.939621	Halloran Spring-Halloran Wash	1.60	
D-22-105	R6	RIVERINE	0.106093	660.2	MRPW	35.351741	-115.939139	Halloran Spring-Halloran Wash	7.00	
D-22-106	R6	RIVERINE	0.009212	250.8	MRPW	35.351834	-115.939500	Halloran Spring-Halloran Wash	1.60	
D-22-107	R6	RIVERINE	0.012628	343.8	MRPW	35.352276	-115.938571	Halloran Spring-Halloran Wash	1.60	
D-22-108	R6	RIVERINE	0.014880	405.1	MRPW	35.352407	-115.938301	Halloran Spring-Halloran Wash	1.60	
D-22-109	R6	RIVERINE	0.006024	164.0	MRPW	35.352074	-115.938356	Halloran Spring-Halloran Wash	1.60	
D-22-110	R6	RIVERINE	0.007453	202.9	MRPW	35.352329	-115.938476	Halloran Spring-Halloran Wash	1.60	
D-22-111	R6	RIVERINE	0.001998	54.4	MRPW	35.352022	-115.938565	Halloran Spring-Halloran Wash	1.60	
D-22-112	R6	RIVERINE	0.012735	346.7	MRPW	35.352727	-115.938095	Halloran Spring-Halloran Wash	1.60	
D-22-113	R6	RIVERINE	0.003368	91.7	MRPW	35.352176	-115.938211	Halloran Spring-Halloran Wash	1.60	
D-22-114	R6	RIVERINE	0.004962	135.1	MRPW	35.352684	-115.937785	Halloran Spring-Halloran Wash	1.60	
D-22-115	R6	RIVERINE	0.001249	34.0	MRPW	35.352469	-115.937811	Halloran Spring-Halloran Wash	1.60	
D-22-116	R6	RIVERINE	0.009216	250.9	MRPW	35.352942	-115.937662	Halloran Spring-Halloran Wash	1.60	
D-22-117	R6	RIVERINE	0.006575	179.0	MRPW	35.353035	-115.937487	Halloran Spring-Halloran Wash	1.60	
D-22-118	R6	RIVERINE	0.005168	140.7	MRPW	35.352941	-115.937340	Halloran Spring-Halloran Wash	1.60	
D-22-119	R6	RIVERINE	0.061111	532.4	MRPW	35.352802	-115.937266	Halloran Spring-Halloran Wash	5.00	
D-22-120	R6	RIVERINE	0.032495	283.1	MRPW	35.353376	-115.937008	Halloran Spring-Halloran Wash	5.00	
D-22-121	R6	RIVERINE	0.009425	256.6	MRPW	35.353605	-115.936571	Halloran Spring-Halloran Wash	1.60	
D-22-122	R6	RIVERINE	0.012736	138.7	MRPW	35.353263	-115.936767	Halloran Spring-Halloran Wash	4.00	
D-22-123	R6	RIVERINE	0.088476	770.8	MRPW	35.354142	-115.935538	Halloran Spring-Halloran Wash	5.00	
D-22-124	R6	RIVERINE	0.005337	145.3	MRPW	35.353931	-115.936268	Halloran Spring-Halloran Wash	1.60	
D-22-125	R6	RIVERINE	0.013751	119.8	MRPW	35.354052	-115.936235	Halloran Spring-Halloran Wash	5.00	
D-22-127	R6	RIVERINE	0.006821	185.7	MRPW	35.354599	-115.935298	Halloran Spring-Halloran Wash	1.60	
D-22-128	R6	RIVERINE	0.005598	152.4	MRPW	35.354421	-115.935523	Halloran Spring-Halloran Wash	1.60	
D-22-129	R6	RIVERINE	0.017964	156.5	MRPW	35.354224	-115.935839	Halloran Spring-Halloran Wash	5.00	
D-22-131	R6	RIVERINE	0.006233	169.7	MRPW	35.354923	-115.934717	Halloran Spring-Halloran Wash	1.60	
D-22-132	R6	RIVERINE	0.004084	111.2	MRPW	35.355084	-115.934625	Halloran Spring-Halloran Wash	1.60	
D-22-133	R6	RIVERINE	0.018262	159.1	MRPW	35.355416	-115.933959	Halloran Spring-Halloran Wash	5.00	
D-22-134	R6	RIVERINE	0.017709	593.4	MRPW	35.355350	-115.933643	Halloran Spring-Halloran Wash	1.30	22D14
D-22-135	R6	RIVERINE	0.006968	189.7	MRPW	35.355645	-115.933610	Halloran Spring-Halloran Wash	1.60	
D-22-136	R6	RIVERINE	0.008026	174.8	MRPW	35.355884	-115.933220	Halloran Spring-Halloran Wash	2.00	
D-22-137	R6	RIVERINE	0.008955	243.8	MRPW	35.356133	-115.932730	Halloran Spring-Halloran Wash	1.60	
D-22-138	R6	RIVERINE	0.008217	223.7	MRPW	35.356365	-115.932555	Halloran Spring-Halloran Wash	1.60	
D-22-140	R6	RIVERINE	0.017658	192.3	MRPW	35.356891	-115.931489	Halloran Spring-Halloran Wash	4.00	
D-22-141	R6	RIVERINE	0.050946	554.8	MRPW	35.356196	-115.931744	Halloran Spring-Halloran Wash	4.00	
D-22-142	R6	RIVERINE	0.003567	97.1	MRPW	35.356106	-115.932141	Halloran Spring-Halloran Wash	1.60	
D-22-143	R6	RIVERINE	0.004294	116.9	MRPW	35.356277	-115.931953	Halloran Spring-Halloran Wash	1.60	
D-22-144	R6	RIVERINE	0.023223	252.9	MRPW	35.356593	-115.931842	Halloran Spring-Halloran Wash	4.00	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-22-145	R6	RIVERINE	0.027273	297.0	MRPW	35.356739	-115.931355	Halloran Spring-Halloran Wash	4.00	
D-22-146	R6	RIVERINE	0.006329	172.3	MRPW	35.357191	-115.931104	Halloran Spring-Halloran Wash	1.60	
D-22-147	R6	RIVERINE	0.794858	3462.4	MRPW	35.359900	-115.927123	Halloran Spring-Halloran Wash	10.00	
D-22-148	R6	RIVERINE	0.004540	123.6	MRPW	35.362280	-115.922986	Halloran Spring-Halloran Wash	1.60	
D-22-149	R6	RIVERINE	0.002421	65.9	MRPW	35.360659	-115.925350	Halloran Spring-Halloran Wash	1.60	
D-22-150	R6	RIVERINE	0.003383	92.1	MRPW	35.360583	-115.925650	Halloran Spring-Halloran Wash	1.60	
D-22-151	R6	RIVERINE	0.005436	148.0	MRPW	35.360486	-115.925988	Halloran Spring-Halloran Wash	1.60	
D-22-152	R6	RIVERINE	0.003284	89.4	MRPW	35.360455	-115.926124	Halloran Spring-Halloran Wash	1.60	
D-22-153	R6	RIVERINE	0.001660	45.2	MRPW	35.360327	-115.926340	Halloran Spring-Halloran Wash	1.60	
D-22-154	R6	RIVERINE	0.001895	51.6	MRPW	35.360232	-115.926592	Halloran Spring-Halloran Wash	1.60	
D-22-155	R6	RIVERINE	0.001433	39.0	MRPW	35.360147	-115.926742	Halloran Spring-Halloran Wash	1.60	
D-22-156	R6	RIVERINE	0.000896	24.4	MRPW	35.360133	-115.926771	Halloran Spring-Halloran Wash	1.60	
D-22-157	R6	RIVERINE	0.001862	50.7	MRPW	35.358983	-115.928534	Halloran Spring-Halloran Wash	1.60	
D-22-158	R6	RIVERINE	0.046024	1253.0	MRPW	35.358133	-115.928807	Halloran Spring-Halloran Wash	1.60	
D-22-159	R6	RIVERINE	0.008084	220.1	MRPW	35.357357	-115.930969	Halloran Spring-Halloran Wash	1.60	
D-22-161	R6	RIVERINE	0.435147	758.2	MRPW	35.363088	-115.921379	Halloran Spring-Halloran Wash	25.00	
D-22-163	R6	RIVERINE	0.011085	301.8	MRPW	35.364101	-115.920099	Halloran Spring-Halloran Wash	1.60	
D-22-164	R6	RIVERINE	0.007063	192.3	MRPW	35.364299	-115.920068	Halloran Spring-Halloran Wash	1.60	
D-22-165	R6	RIVERINE	0.011207	305.1	MRPW	35.364527	-115.919361	Halloran Spring-Halloran Wash	1.60	
D-22-166	R6	RIVERINE	0.015971	434.8	MRPW	35.364179	-115.919715	Halloran Spring-Halloran Wash	1.60	
D-22-167	R6	RIVERINE	0.007769	211.5	MRPW	35.364252	-115.919767	Halloran Spring-Halloran Wash	1.60	
D-22-168	R6	RIVERINE	0.010072	274.2	MRPW	35.364721	-115.918888	Halloran Spring-Halloran Wash	1.60	
D-22-169	R6	RIVERINE	0.010141	276.1	MRPW	35.365291	-115.918236	Halloran Spring-Halloran Wash	1.60	
D-22-170	R6	RIVERINE	0.013276	578.3	MRPW	35.366279	-115.916745	Halloran Spring-Halloran Wash	1.00	
D-22-171	R6	RIVERINE	0.067236	1830.5	MRPW	35.366993	-115.915196	Halloran Spring-Halloran Wash	1.60	22D4
D-22-172	R6	RIVERINE	0.013818	376.2	MRPW	35.368430	-115.912664	Halloran Spring-Halloran Wash	1.60	
D-22-173	R6	RIVERINE	0.011776	320.6	MRPW	35.368429	-115.912389	Halloran Spring-Halloran Wash	1.60	
D-22-174	R6	RIVERINE	0.040091	3492.7	MRPW	35.367813	-115.912952	Halloran Spring-Halloran Wash	0.50	22D2
D-22-175	R6	RIVERINE	0.027243	741.7	MRPW	35.369967	-115.907163	Halloran Spring-Halloran Wash	1.60	
D-22-176	R6	RIVERINE	0.019673	535.6	MRPW	35.370807	-115.905234	Halloran Spring-Halloran Wash	1.60	
D-22-177	R6	RIVERINE	0.015600	424.7	MRPW	35.371040	-115.904407	Halloran Spring-Halloran Wash	1.60	
D-22-178	R6	RIVERINE	0.029756	810.1	MRPW	35.371465	-115.903182	Halloran Spring-Halloran Wash	1.60	
D-22-179	R6	RIVERINE	0.009051	246.4	MRPW	35.371536	-115.903804	Halloran Spring-Halloran Wash	1.60	
D-22-180	R6	RIVERINE	0.005293	144.1	MRPW	35.371533	-115.903438	Halloran Spring-Halloran Wash	1.60	
D-22-181	R6	RIVERINE	0.031140	847.8	MRPW	35.372333	-115.900173	Halloran Spring-Halloran Wash	1.60	
D-22-183	R6	RIVERINE	0.030994	843.8	MRPW	35.372887	-115.898584	Halloran Spring-Halloran Wash	1.60	
D-22-184	R6	RIVERINE	0.027122	738.4	MRPW	35.373551	-115.896792	Halloran Spring-Halloran Wash	1.60	
D-22-185	R6	RIVERINE	0.025932	706.0	MRPW	35.373402	-115.897143	Halloran Spring-Halloran Wash	1.60	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HBG Data Field Point
D-22-187	R6	RIVERINE	0.027798	756.8	MRPW	35.372681	-115.899249	Halloran Spring-Halloran Wash	1.60	
D-22-188	R6	RIVERINE	0.020823	566.9	MRPW	35.373998	-115.895261	Halloran Spring-Halloran Wash	1.60	
D-22-190	R6	RIVERINE	0.037339	325.3	MRPW	35.375440	-115.890839	Halloran Spring-Halloran Wash	5.00	
D-22-191	R6	RIVERINE	0.021579	587.5	MRPW	35.376359	-115.888002	Halloran Spring-Halloran Wash	1.60	
D-22-192	R6	RIVERINE	0.067001	1824.1	MRPW	35.376307	-115.887056	Halloran Spring-Halloran Wash	1.60	
D-22-193	R6	RIVERINE	0.013499	367.5	MRPW	35.377048	-115.884645	Halloran Spring-Halloran Wash	1.60	
D-22-194	R6	RIVERINE	0.011258	306.5	MRPW	35.377232	-115.884583	Halloran Spring-Halloran Wash	1.60	
D-22-196	R6	RIVERINE	0.035480	309.1	MRPW	35.378538	-115.880024	Halloran Spring-Halloran Wash	5.00	
D-22-203	R6	RIVERINE	0.017036	463.8	MRPW	35.381027	-115.872059	Halloran Spring-Halloran Wash	1.60	
D-22-206	R6	RIVERINE	0.039614	431.4	MRPW	35.382366	-115.867794	Halloran Spring-Halloran Wash	4.00	
D-22-211	R6	RIVERINE	0.037661	328.1	MRPW	35.383619	-115.863552	Halloran Spring-Halloran Wash	5.00	
D-22-220	R6	RIVERINE	0.034494	939.1	MRPW	35.386107	-115.855286	Halloran Spring-Halloran Wash	1.60	
D-22-223	R6	RIVERINE	0.421247	282.3	MRPW	35.387838	-115.849799	Halloran Spring-Halloran Wash	65.00	
D-22-235	R6	RIVERINE	0.450207	653.7	MRPW	35.389847	-115.843604	Halloran Spring-Halloran Wash	30.00	
D-22-236	R6	RIVERINE	1.726515	2506.9	MRPW	35.391115	-115.839368	Halloran Spring-Halloran Wash	30.00	22D11
D-22-239	R6	RIVERINE	0.166609	1451.5	MRPW	35.392357	-115.836054	Halloran Spring-Halloran Wash	5.00	
D-22-242	R6	RIVERINE	0.262638	2288.1	MRPW	35.391839	-115.837231	Halloran Spring-Halloran Wash	5.00	
D-22-245	R6	RIVERINE	0.035939	313.1	MRPW	35.393621	-115.831856	Halloran Spring-Halloran Wash	5.00	
D-22-246	R6	RIVERINE	0.059963	522.4	MRPW	35.393291	-115.832824	Halloran Spring-Halloran Wash	5.00	
D-22-247	R6	RIVERINE	0.052470	1428.5	MRPW	35.393667	-115.830835	Halloran Spring-Halloran Wash	1.60	
D-22-253	R6	RIVERINE	0.027218	395.2	MRPW	35.395329	-115.823754	Halloran Spring-Halloran Wash	3.00	22MD8
D-22-254	R6	RIVERINE	0.028767	417.7	MRPW	35.395283	-115.823439	Halloran Spring-Halloran Wash	3.00	22MD7
D-22-255	R6	RIVERINE	0.010882	158.0	MRPW	35.395500	-115.823564	Halloran Spring-Halloran Wash	3.00	
D-22-265	R6	RIVERINE	1.691598	2456.2	MRPW	35.397879	-115.813381	Halloran Spring-Halloran Wash	30.00	
D-22-266	R6	RIVERINE	0.021391	310.6	MRPW	35.398365	-115.810225	Halloran Spring-Halloran Wash	3.00	
D-22-267	R6	RIVERINE	0.092672	672.8	MRPW	35.399257	-115.807715	Halloran Spring-Halloran Wash	6.00	
D-22-268	R6	RIVERINE	0.004955	134.9	MRPW	35.399443	-115.807539	Halloran Spring-Halloran Wash	1.60	
D-22-275	R6	RIVERINE	0.006129	133.5	MRPW	35.397261	-115.814137	Halloran Spring-Halloran Wash	2.00	
D-22-277	R6	RIVERINE	0.007828	170.5	MRPW	35.397134	-115.814769	Halloran Spring-Halloran Wash	2.00	
D-22-283	R6	RIVERINE	0.028891	251.7	MRPW	35.399019	-115.807768	Halloran Spring-Halloran Wash	5.00	
D-22-284	R6	RIVERINE	0.061341	534.4	MRPW	35.399205	-115.805881	Halloran Spring-Halloran Wash	5.00	
D-22-289	R6	RIVERINE	0.012184	331.7	MRPW	35.399696	-115.805280	Halloran Spring-Halloran Wash	1.60	
D-22-290	R6	RIVERINE	0.007284	198.3	MRPW	35.399468	-115.805670	Halloran Spring-Halloran Wash	1.60	
D-22-292	R6	RIVERINE	0.014219	387.1	MRPW	35.399759	-115.805027	Halloran Spring-Halloran Wash	1.60	
D-22-293	R6	RIVERINE	0.012386	337.2	MRPW	35.399809	-115.804727	Halloran Spring-Halloran Wash	1.60	
D-22-294	R6	RIVERINE	0.009407	256.1	MRPW	35.400445	-115.802271	Halloran Spring-Halloran Wash	1.60	
D-22-295	R6	RIVERINE	0.006938	188.9	MRPW	35.400438	-115.802452	Halloran Spring-Halloran Wash	1.60	
D-22-296	R6	RIVERINE	0.007574	206.2	MRPW	35.400562	-115.802229	Halloran Spring-Halloran Wash	1.60	

Exhibit B1. Study Area Field Data for Areas Potentially Subject to Corps Jurisdiction, HUC-8 Mojave-Cuddeback, Preferred Route Drainages, DesertXpress Project										
Waters_Name	Cowardin_Code	HGM_Code	Area (acres)	Linear (ft)	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway	width (OHWM)	HGB Data Field Point
D-22-297	R6	RIVERINE	0.005326	145.0	MRPW	35.400644	-115.802091	Halloran Spring-Halloran Wash	1.60	
D-22-298	R6	RIVERINE	0.029706	258.8	MRPW	35.400124	-115.802555	Halloran Spring-Halloran Wash	5.00	
D-22-299	R6	RIVERINE	0.053260	464.0	MRPW	35.400387	-115.801397	Halloran Spring-Halloran Wash	5.00	
D-22-300	R6	RIVERINE	0.009466	297.7	MRPW	35.400621	-115.801655	Halloran Spring-Halloran Wash	1.60	
D-22-301	R6	RIVERINE	0.010843	295.2	MRPW	35.400826	-115.800917	Halloran Spring-Halloran Wash	1.60	
D-22-302	R6	RIVERINE	0.004522	123.1	MRPW	35.400905	-115.801106	Halloran Spring-Halloran Wash	1.60	
D-22-307	R6	RIVERINE	0.091563	265.9	MRPW	35.401175	-115.799565	Halloran Spring-Halloran Wash	15.00	
D-22-308	R6	RIVERINE	0.021694	94.5	MRPW	35.401490	-115.799494	Halloran Spring-Halloran Wash	10.00	
D-22-309	R6	RIVERINE	0.023737	206.8	MRPW	35.401492	-115.799348	Halloran Spring-Halloran Wash	5.00	
D-22-310	R6	RIVERINE	0.084022	366.0	MRPW	35.401280	-115.799131	Halloran Spring-Halloran Wash	10.00	
D-22-315	R6	RIVERINE	0.005701	155.2	MRPW	35.368184	-115.913170	Halloran Spring-Halloran Wash	1.60	
D-22-316	R6	RIVERINE	0.104213	907.9	MRPW	35.364112	-115.919659	Halloran Spring-Halloran Wash	5.00	
D-22-317	R6	RIVERINE	0.009194	250.3	MRPW	35.365173	-115.918497	Halloran Spring-Halloran Wash	1.60	
D-22-318	R6	RIVERINE	0.002586	70.4	MRPW	35.358032	-115.929498	Halloran Spring-Halloran Wash	1.60	
D-22-319	R6	RIVERINE	0.008514	231.8	MRPW	35.355039	-115.934355	Halloran Spring-Halloran Wash	1.60	
D-22-321	R6	RIVERINE	0.010714	291.7	MRPW	35.309566	-116.006754	Halloran Spring-Halloran Wash	1.60	
D-22-322	R6	RIVERINE	0.080312	2186.5	MRPW	35.291353	-116.035171	Halloran Spring-Halloran Wash	1.60	
D-22-323	R6	RIVERINE	0.021229	616.5	MRPW	35.273473	-116.058993	Halloran Spring-Halloran Wash	1.50	22D9
D-22-324	R6	RIVERINE	0.014153	616.5	MRPW	35.271878	-116.061029	Halloran Spring-Halloran Wash	1.00	22D10
D-22-325	R6	RIVERINE	0.017179	467.7	MRPW	35.373635	-115.895105	Halloran Spring-Halloran Wash	1.60	
D-22-326	R6	RIVERINE	0.008147	118.3	MRPW	35.377127	-115.884146	Halloran Spring-Halloran Wash	3.00	
D-22-330	R6	RIVERINE	0.038343	835.1	MRPW	35.365499	-115.917246	Halloran Spring-Halloran Wash	2.00	22D15
D-22-237	R6	RIVERINE	0.002878	250.7	MRPW	35.392313	-115.835088	Halloran Spring-Halloran Wash	0.50	
D-22-331	R6	RIVERINE	0.001699	148.0	MRPW	35.392664	-115.833693	Halloran Spring-Halloran Wash	0.50	22D13
D-22-332	R6	RIVERINE	0.002515	219.1	MRPW	35.392693	-115.833902	Halloran Spring-Halloran Wash	0.50	22D12
Totals:			69.881278	883377.9						

Exhibit B2

Field Data

(See attached CD in PDF format.)

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Abronia villosa</i>	NL	= <i>A. v.</i> var. <i>aurita</i> = <i>A. v.</i> var. <i>villosa</i> = <i>Bastardiopsis eggersii</i>	DESERT SAND VERBENA	NL	NL	Herb
<i>Acacia gregii</i>	<i>Acacia gregii</i>	NA	CATCLAW ACACIA	FACU	FACU	Shrub
<i>Achnatherum speciosum</i>	NL	= <i>Stipa speciosa</i>	DESERT STIPA	NL	NL	Shrub
<i>Adenophyllum porophylloides</i>	NL	= <i>Dyssodia porophylloides</i>	SAN FELIPE DOGWEEED	NL	NL	Shrub
<i>Allenrolfea occidentalis</i>	<i>Allenrolfea occidentalis</i>	NA	IODINE BUSH	FACW+	FACW	Shrub
<i>Ambrosia dumosa</i>	NL	= <i>Fransera dumosa</i>	BURROWEED	NL	NL	Shrub
<i>Ambrosia eriocentra</i>	NL	= <i>Fransera eriocentra</i>	RAGWEED	NL	NL	Shrub
<i>Amsinckia tessellata</i>	NL	= <i>A. conica</i> = <i>A. cuneata</i> = <i>A. mojavensis</i> = <i>A. purpusii</i> = <i>A. rostellata</i> = <i>A. setosissima</i>	FIDDLE-NECK	NL	NL	Herb

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Amsinskia intermedeon</i>	NL	NA	FIDDLE-NECK	NL	NL	Herb
<i>Aristida purpurea</i>	NL	= <i>A. p.</i> var. <i>fendleriana</i> = <i>A. p.</i> var. <i>longiseta</i> = <i>A. p.</i> var. <i>neallegi</i> = <i>A. p.</i> var. <i>parishii</i> = <i>A. p.</i> var. <i>purpurea</i> = <i>A. p.</i> var. <i>wrightii</i>	PURPLE THREE AWN	NL	NL	Herb
<i>Asclepias californica</i>	NL	= <i>A. c.</i> ssp. <i>greenii</i> = <i>A. c.</i> ssp. <i>californica</i>	CALIFORNIA MILKWEED	NL	NL	Herb
<i>Asclepias curassavica</i>	<i>Asclepias curassavica</i>	NA	SCARLET MILKWEED	FAC	NL	Herb
<i>Atriplex canescens</i>	<i>Atriplex canescens</i>	NA	FOUR-WINGED SALTBUSH	FACU	UPL	Shrub
<i>Atriplex hymenelytra</i>	NL	NA	MANY-FRUITED SALTBUSH	NL	NL	Shrub
<i>Atriplex polycarpa</i>	<i>Atriplex</i>	NA	MANY-FRUIT SALTBUSH	FACU	FACU	Shrub

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Avena barbata</i>	<i>polycarpa</i> NL	= <i>A. hirsuta</i>	SLENDER WILD OAT	NL	NL	Herb
<i>Baccharis brachyphylla</i>	NL	NA	SHORT LEAVED BACCHARIS	NL	NL	Shrub
<i>Baccharis salicifolia</i>	<i>Baccharis glutinosa</i>	= <i>B. glutinosa</i> = <i>B. viminea</i> = <i>Molina salicifolia</i>	MULE FAT	FACW-	FACW	Shrub
<i>Baccharis sarothroides</i>	<i>Baccharis sarothroides</i>	NA	DESERT FALSE-WILLOW	FAC	NI	Shrub
<i>Baileya</i> spp.	NL	NA	DESERT MARIGOLD	NL	NL	Herb
<i>Bouteloua barbata</i>	NL	= <i>B. arenosa</i> = <i>Chondrosium barbata</i> = <i>C. exile</i> = <i>C. microstachyum</i> = <i>C. polystachyum</i> = <i>C. subscorpioides</i>	SIX WEEKS GRAMA	NL	NL	Herb
<i>Brassica tournefortii</i>	NL	NA	ASIAN MUSTARD	NL	NL	Herb

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<i>Bromus madritensis</i>	NL	= <i>Anisantha madritensis</i> = <i>A. matritensis</i> = <i>Bromus maritensis</i>	FOXTAIL CHESS	NL	NL	Herb
<i>Bromus rubens</i>	NL		RIPGUT BROME	NI	NI	Herb
<i>Bromus tectorum</i>	NL	= <i>Anisantha tectorum</i>	CHEAT GRASS	NL	NL	Herb
<i>Camissonia boothii</i>	NL	= <i>Oenothera decorticans</i>	BOOTH'S EVENING PRIMROSE	NL	NL	Herb
<i>Camissonia brevipes</i>	NL	= <i>Oenothera brevipes</i>	YELLOW CUPS	NL	NL	Herb
<i>Cercidium floridum</i>	NL	NA	BLUE PALO VERDE	NL	NL	Shrub
<i>Cercidium microphyllum</i>	NL	NA	FOOTHILLS PALO VERDE	NL	NL	Tree
<i>Chaenactis fremontii</i>	NL	NA	FREMONT PINCUSHION	NL	NL	Herb
<i>Chamaesyce albomarginata</i>	NL	= <i>Euphorbia albomarginata</i>	RATTLESNAKE WEED	NL	NL	Herb
<i>Chaenactis</i>	NL	= <i>C. c. var.</i>	PEBBLE PINCUSHION	NL	NL	Herb

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<i>carphoclinia</i>		<i>carphoclinia</i> =C. c. var. <i>peirsonii</i>				
<i>Chenopodium album</i>	<i>Chenopodium album</i>	NA	WHITE GOOSEFOOT	FAC	FACU	Herb
<i>Chilopsis linearis</i>	<i>Chilopsis linearis</i>	NA	DESERT WILLOW	FACW*	FAC	Tree
<i>Chorizanthe brevicorny</i>	NL	=C. b. var. <i>brevicorny</i> =C. b. var. <i>spatulata</i>	BRITTLE SPINEFLOWER	NL	NL	Herb
<i>Chorizanthe rigida</i>	NL	= <i>Acanthogonum rigidum</i>	SPINEY-HERB	NL	NL	Herb
<i>Chrysothamnus paniculatus</i>	NL	= <i>Ericameria paniculatus</i>	MOJAVE RABBITBRUSH	NL	NL	Shrub
<i>Coleogyne ramosissima</i>	NL	NA	BLACKBUSH	NL	NL	Shrub
<i>Cryptantha pterocarya</i>	NL	=C. p. var. <i>purposii</i> =C. p. var. <i>cyclopetera</i> =C. p. var. <i>pterocarya</i>	WINGED NUT FORGET ME NOT	NL	NL	Herb
<i>Cylindropuntia</i>	NL	= <i>Opuntia acanthocarpa</i>	BUCKHORN CHOLLA	NL	NL	Shrub

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<i>acanthocarpa</i>						
<i>Cylindroopuntia arbuscula</i> **	NL	Unknown	No info. available on this species. <i>C. arbuscula</i> may = typo	NL	NL	Shrub?
<i>Cynodon dactylon</i>	<i>Cynodon dactylon</i>	= <i>Capriola dactylon</i> = <i>C. aristiglumis</i> = <i>Panicum dactylon</i>	BERMUDA GRASS	FAC	FAC	Herb
<i>Descurainia sophia</i>	NL	= <i>Sisymbrium Sophia</i>	HERB SOPHIA	NL	NL	Herb
<i>Encelia actoni</i>	NL	= <i>E. virginensis ssp. actoni</i>	ACTON ENCELIA	NL	NL	Shrub
<i>Encelia farinosa</i>	NL	NA	BRITTLE BUSH	NL	NL	Shrub
<i>Encelia frutescens</i>	NL	= <i>Simsia frutescens</i>	BUTTON BRITTLE BUSH	NL	NL	Shrub
<i>Encelia virginensis</i>	NL	= <i>Frutescens</i> var. <i>virginensis</i>	NO COMMON NAME	NL	NL	Shrub
<i>Ephedra nevadensis</i>	NL	NA	NEVADA EPHEDRA	NL	NL	Shrub
<i>Ephedra viridis</i>	NL	NA	MORMON TEA	NL	NL	Shrub
<i>Eriastrum densifolium</i>	NL	NA	SHRUBBY ERIASTRUM	NL	NL	Shrub

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<i>Ericameria cooperi</i>	NL	= <i>Haplopappus cooperi</i>	COOPER'S GOLDENBUSH	NL	NL	Shrub
<i>Ericameria laricifolia</i>	NL	= <i>Haplopappus lacrifolia</i>	TURPENTINE BUSH	NL	NL	Shrub
<i>Ericameria nauseosa</i>	NL	= <i>E. n. ssp. consimilis</i> = <i>E. n. var. bernardina</i> = <i>E. n. var. ceruminosa</i> = <i>E. n. var. hololeuca</i> = <i>E. n. var. leioperma</i> = <i>E. n. var. oreophila</i> = <i>E. n. var. speciosa</i> = <i>E. n. var. washoensis</i> = <i>Chrysothamnus nauseosus</i>	RUBBER RABBITBRUSH	NL	NL	Shrub
<i>Ericameria paniculata</i>	NL	= <i>Chrysothamnus paniculatus</i>	MOJAVE RABBITBRUSH	NL	NL	Shrub

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<i>Ericameria pinifolia</i>	NL	= <i>E. ericoides</i> ssp. <i>pinifolia</i> = <i>Haplopappus pinifolius</i>	PINE BUSH	NL	NL	Shrub
<i>Eriogonum deflexum</i>	NL	NA	FLAT TOPPED BUCKWHEAT	NL	NL	Herb
<i>Eriogonum fasciculatum</i>	NL	= <i>E. d.</i> var. <i>baratum</i> = <i>E. d.</i> var. <i>deflexum</i> = <i>E. d.</i> var. <i>nevadense</i> = <i>E. d.</i> var. <i>rectum</i>	CALIFORNIA BUCKWHEAT	NL	NL	Shrub
<i>Eriogonum inflatum</i>	NL	= <i>E. glaucum</i> = <i>E. inflatum</i> var. <i>inflatum</i>	DESERT TRUMPET	NL	NL	Shrub
<i>Erioneuron pulchellum</i>	NL	= <i>Triodia pulchella</i> = <i>Dasyochloa pulchella</i>	FLUFF GRASS	NL	NL	Herb

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<i>Eriophyllum ambiguum</i> / <i>E. wallacei</i> [sic]	NL	= <i>E. ambiguum</i> var. <i>ambiguum</i> = <i>E. ambiguum</i> var. <i>paleaceum</i> = <i>Antherapeas wallacei</i> = <i>Eriophyllum wallacei</i> var. <i>rubellum</i> = <i>E. w.</i> var. <i>wallacei</i> = <i>E. w.</i> var. <i>calvescens</i> = <i>Eriophyllum aureum</i>	ANNUAL WOOLLY SUNFLOWER/WALLACE'S WOOLLY DAISY	NL	NL	Herb
<i>Erodium cicutarium</i>	NL	= <i>Erodium cicutarium</i> ssp. <i>cicutarium</i> = <i>E. cicutarium</i> ssp. <i>jacquinianum</i>	COASTAL HERON'S BILL	NL	NL	Herb
<i>Eschscholzia minutiflora</i>	NL	= <i>E. coville</i> = <i>E. minutiflora</i> ssp. <i>twisselmanii</i> = <i>E. minutiflora</i> var. <i>darwinensis</i>	PYGMY POPPY	NL	NL	Herb

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<i>Gilia latifolia</i>	NL	= <i>E. minuscula</i> NA	BROADLEAF GILLIA	NL	NL	Herb
<i>Gutierrezia sarothrae</i>	NL	NA	MATCHWEED	NL	NL	Shrub
<i>Hordeum moines</i>	NL	NA	BARLEY	NL	NL	Herb
<i>Hordeum murinum</i>	<i>Hordeum leporinum</i>	= <i>H. m. ssp. glaucum</i> = <i>H. m. ssp. leporinum</i> = <i>H. m. ssp. murinum</i>	MOUSE BARLEY	NI	NI	Herb
<i>Hymenoclea salsola</i>	NL	= <i>H. m. var. patula</i> = <i>H. m. var. pentalepsis</i> = <i>H. m. var. salsola</i>	CHEESE BUSH	NL	NL	Shrub
<i>Krameria parviflora</i>	NL	NA	RHATANY	NL	NL	Shrub
<i>Larrea tridentata</i>	NL	= <i>L. divaricata ssp. tridentata</i> = <i>L. divaricata</i> = <i>L. tridentata var. arenaria</i> = <i>L. tridentata var.</i>	CREOSOTE BUSH	NL	NL	Shrub

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<i>Lepidium fremontii</i>	NL	<i>tridentata</i> = <i>L. fremontii</i> var. <i>fremontii</i> = <i>L. f.</i> var. <i>stipitatum</i>	DESERT ALYSSUM	NL	NL	Herb
<i>Lepidium latifolium</i>	<i>Lepidium latifolium</i>	NA	BROAD LEAFED PEPPER-GRASS	FACW	FAC	Herb
<i>Lepidium</i> spp.	<i>Lepidium</i> spp.	NA	PEPPER-GRASS	FAC	NO to FACW+ depending on species	Shrub
<i>Lepidium virginicum</i>	<i>Lepidium virginicum</i>	NA	POOR-MAN'S PEPPER-GRASS	FACU	FACU	Herb
<i>Lepidospartum squamatum</i>	Possibly <i>Baccharis sarothroides</i>	= <i>Lepidospartum squamatum</i> var. <i>palmeri</i> = <i>Lepidospartum squamatum</i> var. <i>squamatum</i> = <i>Baccharis</i>	SCALE BROOM	NL Or FAC	NL	Shrub

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

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		<i>sarathroides</i> var. <i>pluricephala</i> = <i>Lepidospartum squamatum</i> var. <i>obtectum</i>				
<i>Leptochloa uninervia</i>	<i>Leptochloa uninervia</i>	NA	MEXICAN SPRANGLETOP	FACW	FACW	Herb
<i>Leymus triticoides</i>	<i>Elymus triticoides</i>	= <i>Elymus triticoides</i> = <i>E. condensatus</i> var. <i>triticoides</i> = <i>E. orcuttianus</i> = <i>E. triticoides</i> var. <i>pubescens</i>	VALLEY WILD RYE	FAC+	FAC+	Herb
<i>Lupinus concinnus</i>	NL	= <i>L. c.</i> var. <i>pallidus</i> = <i>L. c.</i> var. <i>orcutti</i> = <i>L. c.</i> var. <i>optatus</i> = <i>L. c.</i> var. <i>concinus</i> = <i>L. c.</i> var. <i>agardhianus</i> = <i>L. c.</i> ssp. <i>orcuttii</i> = <i>L. c.</i> ssp. <i>optatus</i> = <i>L. pallidus</i> = <i>L. agardhianus</i>	ELEGANT LUPINE	NL	NL	Herb

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<i>Lycium andersonii</i>	NL	= <i>L. a. var. andersonii</i> = <i>L. a. var. deserticola</i>	ANDERSON THORNBUSH	NL	NL	Shrub
<i>Lycium cooperi</i>	NL	NA	PEACH THORN	NL	NL	Shrub
<i>Lycium parishii</i>	NL	NONE	PARISH'S DESERT THORN	NL	NL	Shrub
<i>Malacothrix coulteri</i>	NL	= <i>Zollikoferia eluensis</i> = <i>M. var. cognate</i>	SNAKE'S HEAD	NL	NL	Herb
<i>Malacothrix glabrata</i>	NL	= <i>M. californica var. glabrata</i>	DESERT DANDELION	NL	NL	Herb
<i>Malva neglecta</i>	NL	NA	COMMON MALLOW	NL	NL	Herb
<i>Mentzelia ssp.</i>	NL	NA	STICK LEAF	NL	NL	Herb
<i>Mimulus fleimingii</i>		= <i>M. parviflorus</i>	FLEMING MONKEYFLOWER	FACU-	NL	Herb
<i>Mimulus fremontii</i>	<i>Mimulus glabratus</i>	= <i>M. subsecundus euanus fremontii</i> = <i>Mimulus glabratus ssp. fremontii</i>	FREMONT'S MONKEYFLOWER	OBL	OBL	Herb

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<i>Oenothera deltoides</i>	NL	= <i>O. d. ssp. cognate</i> = <i>O. d. ssp. deltoides</i> = <i>O. d. ssp. howellii</i> = <i>O. d. ssp. piperi</i> = <i>O. d. var. cineracea</i>	BIRDCAGE EVENING PRIMROSE	NL	NL	Herb
<i>Olea europea</i>	NL	NA	OLIVE TREE	NL	NL	Tree
<i>Opuntia basilaris</i>	NL	NA	BEAVERTAIL CACTUS	NL	NL	Shrub
<i>Parkinsonia aculeata</i>	<i>Parkinsonia aculeata</i>	NA	JERUSALEM -THORN OR PALO VERDE	FACW*	NI	Tree
<i>Pectocarya heterophylla [sic]</i> * = <i>P. heterocarpa</i>	NL	= <i>P. penicillata</i> var. <i>heterocarpa</i>	CHUCKWALLA COMBSEED	NL	NL	Herb
<i>Pectocarya platycarpa</i>	NL	= <i>P. gracilis</i> = <i>P. linearis</i>	NUTTED BROAD COMB	NL	NL	Herb
<i>Phacelia distans</i>	NL	= <i>P. cinera</i> = <i>P. scabrella</i> = <i>P. distans</i> var.	COMMON PHACELIA	NL	NL	Herb

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<i>Phacelia fremontii</i>	NL	<i>australis</i> = <i>P. hullii</i>	FREMONT'S PHACELIA	NL	NL	Herb
<i>Plantago ovata</i>	NL	NA	DESERT INDIAN WHEAT	NL	NL	Herb
<i>Pluchea sericea</i>	<i>Pluchea sericea</i>	NA	ARROW WEED	FACW	FACW	Shrub
<i>Polypogon monspeliensis</i>	<i>Polypogon monspeliensis</i>	NA	ANNUAL RABBIT-FOOT GRASS	FACW+	FACW+	Herb
<i>Populus fremontii</i>	<i>Populus fremontii</i>	---	FREMONT'S COTTONWOOD	FACW	FACW*	Tree
<i>Prosopis glandulosa</i>	<i>Prosopis juliflora</i>	= <i>P. glandulosa</i> var. <i>torreyana</i> = <i>P. juliflora</i> var. <i>torreyana</i> = <i>P. ordorata</i>	HONEY MESQUITE	FACU	NI	Shrub
<i>Puccinella lemmonii</i>	<i>Puccinella lemmonii</i>	NA	LEMON'S ALKALI GRASS	FAC	FACW*	Herb
<i>Rafinesquia neomexicana</i>	NL	NA	CALIFORNIA CHICORY	NL	NL	Herb
<i>Rumex hymenosepalus</i>	NL	NA	WILD RUBARB	NL	NL	Herb
<i>Salazaria</i>	NL	NA	BLADDERSAGE	NL	NL	Shrub

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<i>mexicana</i>						
<i>Salix exigua</i>	<i>Salix exigua</i>	NL	SANDBAR WILLOW	OBL	OBL	Shrub
<i>Salix gooddingii</i>	<i>Salix gooddingii</i>	---	GOODDING WILLOW	OBL	FACW	Tree
<i>Salsola pestifer</i>	<i>Salsola pestifer</i>	NA	RUSSIAN THISTLE	FACU	FACU	Herb
<i>Salsola tragus</i> **	<i>Salsola kali</i> / <i>Salsola pestifer</i>	= <i>S. australis</i> = <i>S. iberica</i> = <i>S. kali</i> var. <i>temifoli</i> = <i>S. pestifer</i> = <i>S. kali</i> var. <i>temifolia</i> = <i>S. kali</i> var. <i>tragus</i> = <i>S. ruthenica</i>	RUSSIAN THISTLE	FACU*/ FACU	FACU/ FACU	Herb
<i>Salvia columbariae</i>	NL	= <i>S. c.</i> var. <i>columbariae</i> = <i>S. c.</i> var. <i>ziegleri</i>	CHIA	NL	NL	Herb
<i>Salvia dorrii</i>	NL	= <i>S. d.</i> var. <i>dorrii</i> = <i>S. d.</i> var. <i>incana</i> = <i>S. d.</i> var. <i>pilosa</i>	DESERT SAGE	NL	NL	Shrub
<i>Schismus arabicus</i>	NL	NA	MEDITERRANEAN GRASS	NL	NL	Herb
<i>Schismus barbatus</i>	NL	= <i>Festuca barbata</i> = <i>S. cabycinus</i>	MEDITERRANEAN GRASS	NL	NL	Herb

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<i>Senna armata</i>	NL	= <i>Cassia armata</i>	DESERT SENNA, SPINY SENNA	NL	NL	Shrub
<i>Sisymbrium altissimum</i>	<i>Sisymbrium altissimum</i>	NA	TALL TUMBLE MUSTARD	FACU	FACU-	Herb
<i>Spharalcea ambigua</i>	NL	= <i>S. parvifolia</i>	APRICOT MALLOW	NL	NL	Shrub
<i>Stanleya pinnata</i>	NL	NA	DESERT PRINCE'S PLUME	NL	NL	Herb
<i>Stephanomeria exigua</i>	NL	NA	SMALL WIRELETTUCE	NL	NL	Herb
<i>Stephanomeria pauciflora</i>	NL	= <i>S. p. var. parishii</i> = <i>S. p. var. pauciflora</i> = <i>S. runcinata</i> var. <i>parishii</i> = <i>S. cinerea</i> = <i>S. lygoclesmoides</i> = <i>S. neomexicana</i> = <i>Lygodesmia pauciflora</i> = <i>Ptiloria pauciflora</i>	DESERT STRAW	NL	NL	Herb

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Stephanomeria virgata</i>	NL	NA	NL	NL	NL	Herb
<i>Tamarix aphylla</i>	<i>Tamarix aphylla</i>	NA	ATHEL TAMARISK	FACW-	FACW	Tree
<i>Tamarix ramosissima</i>	<i>Tamarix ramosissima</i>	NA	SALT CEDAR	FAC	FACW	Shrub
<i>Thamnosma montana</i>	NL	NA	TURPENTINE BROOM	NL	NL	Shrub
<i>Triticum aestivum</i>	NL	= <i>T. hybernum</i> = <i>T. macha</i> = <i>T. sativum</i> = <i>T. sphaerococcum</i> = <i>T. vulgare</i>	COMMON WHEAT	NL	NL	Herb
<i>Typha angustifolia</i>	<i>Typha angustifolia</i>	NA	NARROW LEAF CATTAIL	OBL	OBL	Herb
<i>Ulmus pumila</i>	NL	NONE	SIBERIAN ELM	NL	NL	Tree
<i>Washingtonia filifera</i>	<i>Washingtonia filifera</i>	NA	CALIFORNIA FAN PALM	FACW	NO	Tree
<i>Yucca brevifolia</i>	NL	= <i>Y. jaegeriana</i>	JOSHUA TREE	NL	NL	Tree
<i>Yucca schidigera</i>	NL	= <i>Y. californica</i>	MOJAVE YUCCA	NL	NL	Shrub

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
		= <i>Y. macrocarpa</i> = <i>Y. mohavensis</i>				

* = J.S.A. probably made a typographical error for this species.

**Using JSA taxonomy (*S. tragus*) we determined that in 1988, when the wetland manual was produced, this species could have been either *S. kali* (FACU*) or *S. pestifer* (FACU) (Region O), or FACU for both in Region 8.

NI = Not Indicated.

NL = Not Listed in NWI 1988.

Sources:

Calflora Database. 2010. Calflora Database was developed by the United States Forest Service working in collaboration with U.C. Berkeley. Available at: <http://www.calflora.org/>

National Wetlands Inventory and US Fish And Wildlife Service. 1988. National List of Plant Species that Occur in Wetlands. Compiled by Porter B. Reed, Jr., National Ecology Research Center, US Fish and Wildlife Service, St. Petersburg, Florida. In cooperation with US Army Corps of Engineers, US Environmental Protection Agency, and US Soil Conservation Service.

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

DesertXpress

Field Notebook

HBG Watershed ID # 2

Watershed Name: Bell Mountain Wash

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

HBG OHWM Field Data Sheet (Arid West)										HUC 12# 180902080705		
HGB Team # <i>GD/ES</i>		Project Name: <i>DesertXpress</i>		HBG Sub-Basin # (1-41) <i>2</i>		Drainage Data		Comments				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
5-12-10	0919	2	2MD1	C109	10.5	A	U	NO	A: 10	B: 12, 13, 6 E:	C: 18 F:	Origins to man-made roadside
5-12-10	0933	2	2D2 VS*	C109	1.0 1.6	A	U	NO	A: 10, 12 D:	B: 6, 12, 13 E:	C: 18 F:	also used as a road
5-12-10	0939	2	2MD3	C109	taken by road	I	U	NO	A: 6 D: 10	B: 6, 12, 13 E:	C: 18 F:	PTH RE-verified
5-12-10	0943	2	2MD4*	C109	1.0 5.7	A	U	yes	A: 5 D: 10	B: 6, 12, 13 E:	C: 18 F:	No GPS Point
5-12-10	0953	2	2D5	C109	28.0"	A	U	yes	A: 13 D: 10	B: 6, 12, 13 E:	C: 18 F:	No GPS Point
5-12-10	1003	2	2D6	C109	15"	A	U	NO	A: 13 D: 10	B: 6, 12, 13 E:	C: 18 F:	No GPS Point
									A: 13 D: 10	B: 6, 12, 13 E:	C: 18 F:	

HBG OHWM Field Data Sheet (Arid West) BELL MOUNTAIN WASH												
HGB Team # PP-RYE		Project Name: DesertXpress		HBG Sub-Basin # (1-41) 2		HUC 12 # 180902080705		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-16-10	10:17	3	2D7 VS *	C108	1.0 0.6	A	U	NO	A: 13 D: 10	B: 12 E: 12	C: 8, 11, 12 F: 16, 18	tall creosote formerly PR1 4.5' high
5-16-10	10:20	3	2D8 VS *	C108	.75	A	U	NO	A: 13 D: 10	B: 12 E: 12	C: 8, 11, 12 F: 16, 18	formerly PR-2
5-16-10	10:26	3	2D9 VS *	C108	1.0 1.2	A	U	NO	A: 13 D: 10	B: 12, 6 E: 12	C: 8, 11, 12 F: 16, 18	formerly PR-3
5-16-10	10:31	3	2D43 2D10 VS	C108	1.0 1.8"	A	U	NO	A: 13 D: 10	B: 12, 6 E: 12	C: 8, 11, 12 F: 16, 18	formerly PR4 renamed 2D43 VS
5-16-10	10:37	3	2D11 VS *	C108	1.5	A	U	NO	A: 13 D: 10	B: 12, 6 E: 12	C: 8, 11, 12 F: 16, 18	formerly PR5
5-16-10	10:42	3	2D45 2D12 VS	C108	0.6" 1.8"	A	U	NO	A: 13 D: 10	B: 12, 6 E: 12	C: 8, 11, 12 F: 16, 18	formerly PR6 2D12 re-verified 2D45 VS
5-16-10	11:01	3	2D13 VS	C108	2	A	U	NO	A: 13 D: 10	B: 12, 6 E: 12	C: 8, 11, 12 F: 16, 18	formerly A11-1

HBG OHWM Field Data Sheet (Arid West)												
HGB Team # 2P-RYE		Project Name: DesertXpress		BELL MOUNTAIN WASH						HUC 12# 180902080705		
HGB Sub-Basin # (1-41) 2		Drainage Data								Comments		
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-16-10	11:12	3	2 MD 47 2P14 VS	NO GPS point	18	A	U	NO	A: 13 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	for formerly A11-2 Revised 2 MD 47 VS
5-16-10	11:16	3	2D15 2 MP18 VS	NO GPS point	6	A	U	NO	A: 15 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	formerly A11-3 2P48 VS
5-16-10	11:18	3	2D16 VS		5	A	U	NO	A: 13 D: 10	B: 12,6 E: 12,18	C: 8,11,12 F: 16,18	formerly A11-4
5-16-10	11:21	3	2D17 VS		12 1.0	A	U	NO	A: 13 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	formerly A11-5
5-16-10	11:25	3	2MP51 VS 2 MP18 VS	NO GPS point	6	A	U	NO	A: 13 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	formerly A11-6 Renamed 2MP51 VS
5-16-10	11:36	3	2D19 VS		12 1.0	A	U	NO	A: 13 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	formerly A11-7
5-16-10	11:38	3	2D20 VS		24 2.0	A	U	NO	A: 15 D: 10	B: 12,6 E: 12	C: 8,11,12 F: 16,18	formerly A11-8

HBG OHWM Field Data Sheet (Arid West) <i>BELL MOUNTAIN WASH</i>												
HGB Team # <i>2P-RYE</i>		Project Name: <i>DesertXpress</i>		HBG Sub-Basin # (1-41) <i>2</i>			HUC 12 # <i>180962080705</i>		Comments			
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-16-10	11:30	3	2D21		1.0 <i>1.2</i>	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11,12 F: 16,18	formerly A11-9
5-16-10	11:51	3	2MD22 VS		4	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11,12 F: 16,18	formerly A112-1
5-16-10	11:54	3	2MD 23 * VS		8.4 9.4	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 8, 11, 12 F: 16, 18	formerly A112-2 RTH Field reverified
5-16-10	12:01	3	2D24 VS	No GPS Point	1.0 1.0	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11, 12 F: 16, 18	formerly A112-3 2MD57VS reverified
5-16-10	12:03	3	2D25 VS		2	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11, 12 F: 16, 18	formerly A112-4
5-16-10	12:08	3	2D26 VS		5.3 <i>2</i>	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11,12 F: 16,18	formerly A112-5 RTH Field reverified
5-16-10	12:11	3	2D27 VS		2	A	U	No	A: 13 D: 10	B: 12,6 E: 12	C: 11,12 F: 16,18	formerly A112-6

HBG OHWM Field Data Sheet (Arid West)												
HGB Team # RP. RYZ		Project Name: DesertXpress		HBG Sub-Basin # (1-41)			HUC 12 # 180902080705					
BELL MOUNTAIN WASH												
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-16-10	12:16	3	2MD 28	NO GPS DATA	4'	A	U	N	A: 13 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	FORMERLY AT 2-7 NO GPS DATA RECORDED
5-16-10	12:41	3	2D29 VS		1.0	A	U	N	A: 13 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	EROSION AT ROAD FORMERLY PUSI-1
5-16-10	12:46	3	2MD 30	NO GPS DATA	16'	A	U	N	A: 13, 7 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	FORMERLY PUSI-2 & MD 63VS REVERIFIED
5-16-10	12:50	3	2D 31	NO GPS DATA	8"	A	U	N	A: 13 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	FORMERLY PUSI-3 NO GPS DATA
5-16-10	12:53	3	2D 32	NO GPS DATA	8"	A	U	N	A: 13 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	FORMERLY PUSI-4 NO GPS DATA
5-16-10	12:56	3	2D 33	NO GPS DATA	8"	A	U	N	A: 13 D: 10	B: 12, 16 E: 12	C: 11, 12 F: 16, 18	FORMERLY PUSI-5 NO GPS DATA
									A: D:	B: E:	C: F:	

IBG OHWM Field Data Sheet (Arid West)

BELL MOUNTAIN WASH

IGB Team #		Project Name: DesertXpress		Drainage Data							HUG Sub-Basin # (1 - 41) Z		HUC 12 # 180902030705		Comments
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.			
5-16-10	1005	4	2-34 2-35		-	I	U		A: 18, 12, 11 D: 10, 12	B: E:	C: F:	cent of diversion (former ZNDI)			
	1008		2-33 2-34		-	I	U		A: 11, 12, 18 D: 10, 12	B: E:	C: F:	cut of diversions (ZNDZ)*			
	1010		2-36 2-37		1.4" 1.0	A	U		A: 18, 12, 11 D: 10, 12	B: E:	C: F:	Station 1 location (ZD3)			
	1020		2-37 2-38		5" 1.0	A	U		A: 11, 12, 18 D: 10, 12	B: E:	C: F:	(ZD4)			
	1025		2-38 2-39		2" 0.2	A	U		A: 5 D: 12	B: E:	C: F:	(ZD5)			
	1027		2-39 2-40		5" 0.4	A	U	Y in vicinity looking up	A: 11, 12, 18 D: 10, 12	B: E:	C: F:	(ZD6)			
	1029		2-40 2-41		3" 1.0	A	U		A: 11, 12, 18 D: 10, 12	B: E:	C: F:	REG FOR ZD7 (ZD7)			

* all alphanumeric w/ () are format point ID#:

FIG-100

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

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-IBG OHWM Field Data Sheet (Arid West)

BELL MOUNTAIN WASA

IGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1-41) Z		HUC 12 #		Comments										
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road		Photo (Y/N)									
Drainage Data																		
			Below OHWM	At OHWM	Above OHWM													
5-16-09		4	2D41	NO GPS POINT	14"	A	U											Station 1 location (2D8)
			2MD42		10 4'5"	A	U											Near maintenance area for Station 1 (2MD9)
			2D43		16 10	A	U											Near maintenance area for Station 1 (2D10)
			2MD44		9'3" 8.2	A	U											Rocks etched, worn (2MD11)
			2D45		7" 6.2	A	U											(2D12)
			2D46		8" 6.0	A	U											(2D13)
			2MD47		7'3"	A	U											Rains into culvert under freeway (2MD14)

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

BELL MOUNTAIN WASH

IGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1-41)		HUC 12 #		Comments
				Z				
Drainage Data								
Date W/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)
Below OHWM	At OHWM	Above OHWM						
5-16-10		A	2448		2'4"	A	U	
			2449		1'4"	A	U	
			2450		1'0"	A	U	
			2451		4'8"	A	U	
			2452		1'0"	A	U	
			2453		2'0"	A	U	
			2454		2'5"	A	U	

Use note pages at back of notebook for comments. Put comment number in block below.

(2D15)
Part of same system (2D16)

(2D17)
(2MD18)

(2D19)
(2D20)

(2D21)

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

BELL MOUNTAIN WASH

IGB Team #		Project Name: DesertXpress		Drainage Data										HBG Sub-Basin # (1-41) Z		HUC 12 #		Comments
Date W/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM							
01-11-10		4	2053		4.0 12"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2022)		
			2054		9.4 14"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2023)		
			2057		5.3 8"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					Recovery (2024)		
			2058		2.0 4"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2025)		
			2059		5.5 8"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2026)		
			2060		2.0 22"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2027)		
			2061		2.3 24"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18					(2028)		

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

BELL MOUNTAIN WASH

IGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41) 2		HUC 12 #		Comments				
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
15-16-10		4	2062	10 110	1'8" 1.0	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	RESEARCH GPS POINT FOUNDED 2012
			2MD63		7.0"	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	RESEARCH GPS POINT FOUNDED 2012
			* 2062		1.0"	A	U		A: D:	B: E:	C: F:	RESEARCH GPS POINT FOUNDED 2012
			2062		1.0" 0.5	A	U		A: D:	B: E:	C: F:	RESEARCH GPS POINT FOUNDED 2012
			2062		1.5	A	U		A: D:	B: E:	C: F:	RESEARCH GPS POINT FOUNDED 2012
9-1-10	11010	S	2064		1.5	A	U		A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	RESEARCH GPS POINT FOUNDED 2012

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HGB OHWM Field Data Sheet (Arid West)

HGB Team # <i>68, 71</i>		Project Name: <i>DesertXpress</i>		HUC 12 #		HGB Sub-Basin # (1-41) <i>2 (VS)</i>		Comments				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Drainage Data			Comments
									Below OHWM	At OHWM	Above OHWM	
<i>9/1/10</i>		<i>5</i>	<i>2D64VS</i>		<i>1.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	Use note pages at back of notebook for comments. Put comment number in block below.
									<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>	
			<i>2D65VS</i>		<i>1.0</i>	<i>2-D</i>			<i>A:</i>	<i>B:</i>	<i>C:</i>	SAME DATE ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>2D66VS</i>		<i>2.0</i>	<i>1.5</i>			<i>A:</i>	<i>B:</i>	<i>C:</i>	SAME DATE AS ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>2D67VS</i>		<i>1.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	Same Date AS ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>2D68VS</i>		<i>1.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	Same Date AS ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>2D69VS</i>		<i>1.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A:</i>	<i>B:</i>	<i>C:</i>	Same Date AS ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>2D70VS</i>		<i>1.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A:</i>	<i>B:</i>	<i>C:</i>	Same Date AS ABOVE
									<i>D:</i>	<i>E:</i>	<i>F:</i>	

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HBG Sub-Basin # (1 - 41)		HUC 12 #		Comments		
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Drainage Data		Comments	
									Below OHWM	At OHWM		Above OHWM
01/14		S	2097V2		1.0	A	U	N	A: 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	
			2097V5		1.0	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V1		0.5	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V5		0.5	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V5		0.5	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V5		0.5	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V5		1.0	I			A: D:	B: E:	C: F:	Drainage Data Same as Above
			2097V2		1.0	I			A: D:	B: E:	C: F:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team # 6A, JK		Project Name: DesertXpress		HGB Sub-Basin # (1-41) 2 VS		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
10.11.10		5	2078 VS		0.5	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	
			2079 VS	not on TOUR	6.5	A			A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE NOT ON TOUR
			2080 VS		1.5				A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE
			2081 VS		1.0				A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE
			2082 VS		0.5				A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE
			2083 VS		0.5				A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE
			2084 VS		1.0				A: D:	B: E:	C: F:	Drainage Data Same AS ABOVE

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>64, JH</i>		Project Name: <i>DesertXpress</i>							HUC 12 #	Comments		
		HGB Sub-Basin # (1-41) <i>2V5</i>										
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
<i>9.1.10</i>		<i>S</i>	<i>208515</i>		<i>0.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 2, 11, 12</i>	
			<i>208515</i>		<i>1.0</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>	
			<i>208515</i>		<i>1.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>DRAINING DATA SAME AS ABOVE</i>
			<i>208515</i>		<i>1.5</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>208515</i>		<i>1.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>DRAINING DATA SAME AS ABOVE</i>
			<i>208515</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>208515</i>		<i>1.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>DRAINING DATA SAME AS ABOVE</i>
			<i>208515</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	
			<i>208515</i>		<i>1.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>DRAINING DATA SAME AS ABOVE</i>
			<i>208515</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HBG Sub-Basin # (1 - 41)			HUC 12 #		Comments	
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM		Above OHWM
9/11/16			2D92VS		1.0	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
			2D93VS		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D94VS*		3.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D95VS		9.4				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D96VS		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D97VS		2.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D98VS		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HGB Sub-Basin # (1 - 41)		HUC 12 #		Comments		
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM
01-01-10			2D99VS		0.5	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 10	Use note pages at back of notebook for comments. Put comment number in block below.
			2D100VS*		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D101VS*		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D102VS		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D103VS		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D104VS*		2.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D105VS*		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress										HUC 12 #	
		Drainage Data											
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments	
8/11/16			2D106V15		1.0	A	U	N	A: 5, 9, 12, 13 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	Drainage Data Same as Above	
			2D106V15		2.0				A: D:	B: E:	C: F:	Drainage Data Same as Above	
			2D106V15		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above	
			2D106V15		1.0 2.0				A: D:	B: E:	C: F:	Drainage Data Same as Above	
			2D106V15		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above	
			2D112U5		1.0 1.5				A: D:	B: E:	C: F:	Drainage Data Same as Above	

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>6474</i>		Project Name: <i>DesertXpress</i>		HGB Sub-Basin # (1-41) <i>2 (vs)</i>		HUC 12 #						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
<i>11/10</i>		<i>S</i>	<i>2D119VS</i>		<i>1.0</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 15</i>	<i>C: 8, 11, 12</i>	<i>RTH REVIFIED</i>
			<i>2D119VS</i>		<i>1.5</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>	
			<i>2D119VS</i>		<i>1.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Drainage Data SAME AS ABOVE</i>
			<i>2D119VS</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Drainage Data SAME AS ABOVE</i>
			<i>2D119VS</i>		<i>1.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Drainage Data SAME AS ABOVE</i>
			<i>2D119VS</i>		<i>1.5</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Drainage Data SAME AS ABOVE</i>
			<i>2D119VS</i>		<i>0.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Drainage Data SAME AS ABOVE</i>
			<i>2D119VS</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Drainage Data SAME AS ABOVE</i>

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>64714</i>		Project Name: <i>DesertXpress</i>				HGB Sub-Basin # (1-41) <i>2(VS)</i>		HUC 12 #		Comments				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM		
<i>9-1-10</i>		<i>S</i>	<i>2012015</i>		<i>1.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 18</i>	<i>B: 2, 8, 10, 12, 13</i>	<i>C: 8, 11, 12</i>			
			<i>2012015</i>		<i>1.5</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 8, 10, 12, 13</i>	<i>C: 8, 11, 12</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.0</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.5</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 8, 10, 12, 13</i>	<i>C: 8, 11, 12</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.0</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 8, 10, 12, 13</i>	<i>C: 8, 11, 12</i>			<i>Drainage Data same as Above</i>
			<i>2012015</i>		<i>1.5</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>			<i>Drainage Data same as Above</i>

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HBG OHWM Field Data Sheet (Arid West)

HGB Team # 04, TH		Project Name: DesertXpress				HUC 12 #		HUC 12 #				
Drainage Data												
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9-1-10		S	2D12245		1.0	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
			2D12814		0.5				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D12915		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D12915		0.5				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D12115		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D12115		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D12115		1.5				A: D:	B: E:	C: F:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HBG Sub-Basin # (1 - 41)	HUC 12 #	Comments				
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Drainage Data			Comments			
						Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)		Below OHWM	At OHWM	Above OHWM
01/10/12		5	201374US		2.0	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
			201375US *		1.0	A:			A:	B:	C:	Drainage Data Same as Above
			201364US *		1.0	A:			A:	B:	C:	Drainage Data Same as Above
			201372US		1.0	A:			A:	B:	C:	Drainage Data Same as Above
			201373US *		1.0	A:			A:	B:	C:	Drainage Data Same as Above
			201375US *		1.0	A:			A:	B:	C:	Drainage Data Same as Above
			201374US *		1.0	A:			A:	B:	C:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HGB Sub-Basin # (1-41)		HUC 12 #		Comments				
TA 64				2 (VS)								
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9-10-12		S	2D14WS*		1.0	A	U	N	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 2, 11, 12 F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
			2D12WS		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D14WS*		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D14WS*		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D14WS		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D14WS		0.5				A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D14WS		1.0				A: D:	B: E:	C: F:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team # TH 64		Project Name: DesertXpress		HGB Sub-Basin # (1 - 41) 2 (VS)		HUC 12 #		Comments
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	
Drainage Data								
Below OHWM	At OHWM	Above OHWM						
A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18						
A: 1.0 1.5	A: 1.0 1.5	C: 1.0 1.5	Drainage Data Same AS Above					
A: 1.0 2.0	B: 1.0 2.0	C: 1.0 2.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					
A: 1.0	B: 1.0	C: 1.0	Drainage Data Same AS Above					

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>7A, 64</i>		Project Name: <i>DesertXpress</i>				HUC 12 #		HUC 12 #		Comments		
						2 (VS)						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
9/1/10		S	2D155 VS		1.0	A	U	✓	A: 5, 9, 12, 18 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
			2D156 VS *		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D157 VS *		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D158 VS		0.75 2.5				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D159 VS *		1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D160 VS *		0.75 1.0				A: D:	B: E:	C: F:	Drainage Data same as Above
			2D161 VS *		0.5 1.0				A: D:	B: E:	C: F:	Drainage Data same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>17, 16A</i>		Project Name: <i>DesertXpress</i>		HBG Sub-Basin # (1-41) <i>2 VS</i>		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>9/10</i>		<i>S</i>	<i>22162 US *</i>		<i>1.0</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>5, 9, 12, 18</i> D: <i>10, 12</i>	B: <i>2, 6, 8, 12, 13</i> E: <i>12, 14</i>	C: <i>8, 11, 12</i> F: <i>18</i>	
			<i>22163 US *</i>		<i>0.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>
			<i>22164 US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>
			<i>22165 US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>
			<i>22166 US</i>		<i>1.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>
			<i>22167 US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>
			<i>22168 US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same AS Above</i>

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HUC Sub-Basin # (1 - 41)		HUC 12 #		Comments				
6414		DesertXpress		2(VS)				Use note pages at back of notebook for comments. Put comment number in block below.				
Drainage Data												
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9/1/10		S	2D169WS	0.5		A	U	N	A: 5, 9, 12, 13 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	
			2D170WS*	1.0					A: . D:	B: E:	C: F:	Drainage Data Same as Above
			2D191WS	0.5					A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D192WS*	1.0					A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D193WS	1.0					A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D194WS	1.0					A: D:	B: E:	C: F:	Drainage Data Same as Above
			2D195WS	1.0					A: D:	B: E:	C: F:	Drainage Data Same as Above

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <u>6474</u>		Project Name: <u>DesertXpress</u>		HGB Sub-Basin # (1-41) <u>2 (VS)</u>		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
<u>9/11/06</u>		<u>5</u>	<u>2B176VS</u>		<u>2.0</u>	<u>A</u>	<u>U</u>	<u>N</u>	A: <u>5, 9, 12, 18</u> D: <u>10, 12</u>	B: <u>2, 6, 8, 12, 13</u> E: <u>12, 14</u>	C: <u>8, 11, 12</u> F: <u>18</u>	
			<u>2B173VS</u>		<u>1.0</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE
			<u>2B178VS</u>		<u>1.0</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE
			<u>2B199VS</u>		<u>1.0</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE
			<u>2B200VS</u>		<u>1.0</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE
			<u>2B181VS</u>		<u>0.26</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE
			<u>2B182VS</u>		<u>1.0</u>				A: <u>10</u> D: <u>0-5</u>	B: <u>10</u> E: <u>0-5</u>	C: <u>10</u> F: <u>0-5</u>	Drainage Data Same AS ABOVE

HBG OHWM Field Data Sheet (Arid West)

HGB Team # 64 JLL		Project Name: DesertXpress		HGB Sub-Basin # (1-41) 2(15)		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
9/1/10		S	2018205		1.0	A	U	N	A: 5/9, 10, 12 D: 10, 12	B: 2, 6, 8, 12, 13 E: 12, 14	C: 8, 11, 12 F: 18	
			2018214		1.0				A: D:	B: E:	C: F:	Drainage Data same as above
			2018215		0.5				A: D:	B: E:	C: F:	Drainage Data same as above
			2018216		1.0				A: D:	B: E:	C: F:	Drainage Data same as above
			2018217		0.75				A: D:	B: E:	C: F:	Drainage Data same as above
			2018218		0.75				A: D:	B: E:	C: F:	Drainage Data same as above
			2018219		1.0				A: D:	B: E:	C: F:	Drainage Data same as above
			2018220		1.0	I			A: D:	B: E:	C: F:	Drainage Data same as above

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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 F-1.6-187 *
 REVISIONS

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>64574</i>		Project Name: <i>DesertXpress</i>						HUC 12 #			Comments	
HGB Sub-Basin # (1-41)		<i>2 (vs)</i>						HUC 12 #				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Drainage Data			Comments
									Below OHWM	At OHWM	Above OHWM	
<i>01/10</i>		<i>5</i>	<i>20191VS</i>		<i>1.0</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 13</i>	<i>B: 1, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	
			<i>20192US</i>		<i>1.0</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>	
			<i>20193US</i>		<i>1.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Damage Date Same as Above</i>
			<i>20193US</i>		<i>0.7</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Damage Date Same as Above</i>
			<i>20194US</i>		<i>1.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Damage Date Same as Above</i>
			<i>20195US</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Damage Date Same as Above</i>
			<i>20196US</i>		<i>12.0</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Damage Date Same as Above</i>
			<i>20197US</i>		<i>1.0</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Damage Date Same as Above</i>
			<i>20197US</i>		<i>0.5</i>				<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Damage Date Same as Above</i>
			<i>20197US</i>		<i>0.5</i>				<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Damage Date Same as Above</i>

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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** HIS IDENTIFIED AS 12, 6 PROPERTY STAKE HAVE BEEN LOST. RTH FIELD REVISION AS 12.*

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>64714</i>		Project Name: <i>DesertXpress</i>					HUC 12 #		Comments			
		HBG Sub-Basin # (1-41) <i>2(VS)</i>										
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
<i>9/1/12</i>		<i>S</i>	<i>2A198US</i>		<i>0.5</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>5, 9, 10, 18</i> D: <i>10, 12</i>	B: <i>2, 6, 8, 12, 13</i> E: <i>10, 14</i>	C: <i>8, 11, 12</i> F: <i>18</i>	
			<i>2D199US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>
			<i>2D200US</i>		<i>0.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>
			<i>2B201US</i>		<i>0.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>
			<i>2D202US</i>		<i>0.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>
			<i>2D203US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>
			<i>2D204US</i>		<i>1.0</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data Same as Above</i>

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HGB OHWM Field Data Sheet (Arid West)

HGB Team # <i>6474</i>		Project Name: <i>DesertXpress</i>		HGB Sub-Basin # (1-41) <i>2(VS)</i>		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>10/1/10</i>		<i>5</i>	<i>25205VA</i>		<i>1.0</i>	<i>A</i>	<i>U</i>	<i>N</i>	<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	
			<i>25206VA</i>	<i>15</i>	<i>I</i>				<i>D: 10, 12</i>	<i>E: 12, 14</i>	<i>F: 18</i>	
			<i>25207VA</i>	<i>15</i>	<i>2.5</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	<i>Drainage Data Same AS Above</i>
			<i>25208VA</i>	<i>15</i>	<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	<i>Drainage Data Same AS Above</i>
			<i>25209VA</i>	<i>15</i>	<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	<i>Drainage Data Same AS Above</i>
			<i>25210VA</i>	<i>15</i>	<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	<i>Drainage Data Same AS Above</i>
			<i>25211VA</i>	<i>15</i>	<i>1.0</i>				<i>A: 5, 9, 12, 18</i>	<i>B: 2, 6, 8, 12, 13</i>	<i>C: 8, 11, 12</i>	<i>Drainage Data Same AS Above</i>

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>TA, Jeff</i>		Project Name: <i>DesertXpress</i>		HGB Sub-Basin # (1-41) <i>015</i>		HUC 12 #		Comments
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	
Drainage Data								
Below OHWM	At OHWM	Above OHWM						
A: 5, 9, 12, 18	B: 2-16, 18, 12, 13	C: 211, 12						
D: 10, 12	E: 12, 14	F: 19						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same as Above					
D:	E:	F:						

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

HGB Team # TH, 64		Project Name: DesertXpress		HBG Sub-Basin # (1-41) 2 (vs)		HUC 12 #		Comments
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	
Drainage Data								
Below OHWM	At OHWM	Above OHWM						
A: 5, 9, 12, 13	B: 2, 6, 8, 12, 13	C: 8, 11, 12						
D: 10, 12	E: 12, 14	F: 18						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:	RTH REVERI FGD					
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						
A:	B:	C:	Drainage Data Same AS Above					
D:	E:	F:						

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>GA 714</i>		Project Name: <i>DesertXpress</i>		HBG Sub-Basin # (1-41) <i>2 (vs)</i>		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
<i>9/1/10</i>		<i>5</i>	<i>2B226 VS</i>		<i>1.0</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>5, 9, 12, 18</i> D: <i>10, 12</i>	B: <i>2, 6, 8, 12, 18</i> E: <i>12, 18</i>	C: <i>8, 11, 12</i> F: <i>18</i>	
			<i>* 2B227 VS</i>		<i>2.0</i> <i>1.05</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data same as above</i>
			<i>2B228 VS</i>		<i>0.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data same as above</i>
			<i>2B229 VS</i>		<i>1.5</i>				A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	<i>Drainage Data same as above</i>
									A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	
									A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	
									A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	
									A: <i></i> D: <i></i>	B: <i></i> E: <i></i>	C: <i></i> F: <i></i>	

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Bell Mountain Wash***

HBG Watershed ID # 02

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 13-1
 Investigator(s): M. W. Johnson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): D Lat: N 117.259 Long: N 34.595 Datum: NAD 83
 Soil Map Unit Name: Nabona - caddisback complex 2 to 90% S/sps NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM <u>4</u> ft wide <u>0.5</u> ft height <u>2:1</u> bank slope Photos "3-31 to 4-1" "012 Facing W" "013 " E"

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____			<u>NL</u>	
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence index worksheet:
1. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>2</u>				UPL species <u>86</u> x 5 = <u>3530</u>
				Column Totals: <u>86</u> (A) <u>3530</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Lupinus concinnus</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Eragrostis sp.</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>34</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>97</u>	% Cover of Biotic Crust <u>0</u>			
Remarks: <u>Bed is unvegetated above road (< 5% cover)</u>				

SOIL

Sampling Point: 13-1

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12	2.5Y 6/2	100					exposed	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Shovel refusal at 12" - cobble + gravel layer

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Soiled Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p>Secondary Indicators (2 or more required)</p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): NONE

Water Table Present? Yes _____ No Depth (inches): > 12

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): > 12

Wetland Hydrology Present? Yes _____ No

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

Remarks: Pipe line road crosses drainage + affects waterflow, resulting in a braided channel below road. OHWM are weak.

OHWM Indicators: ss, sh, sc, pc
 Substrate: sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 13-2
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: N 117,260 Long: N 34,595 Datum: NAD 83
 Soil Map Unit Name: Nobona Cuddeback Complex 2 to 9% Slopes NW classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Blue line - OHWM indicators are not strongly developed.</u>	<u>OHWM 20 ft wide 0.5 ft height 2:1 bank slope</u> <u>Photos 014 Facing S 015 " N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>			<u>NL</u>	
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>1</u>	<u>Y</u>	<u>Not</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>1</u>			<u>NI</u>	UPL species <u>75</u> x 5 = <u>1825</u>
				Column Totals: <u>75</u> (A) <u>1825</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Bromus rubens</u>	<u>1</u>	<u>Y</u>	<u>Not</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u><1</u>	<u>Y</u>	<u>Not</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Eragrostis sp.</u>	<u><1</u>	<u>Y</u>	<u>Not</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Amsinckia tessellata</u>	<u><1</u>	<u>Y</u>	<u>Not</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>24</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: <u>Unvegetated - <5% cover</u>				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-20</u>	<u>2.5Y6/2</u>						<u>gss</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moist at binder

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): 220

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): 226

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: Sh, se, ss, pc, sd

Substrate: sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 13-3
 Investigator(s): M. Widdowson, E. Vogt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): D Lat: W -117.251 Long: N 34.574 Datum: NAD 83
 Soil Map Unit Name: Norbona Cuddeback Complex 2 to 9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Non blue-line gravel wash - erosional feature.</u>	<u>OHWM 12 ft wide 0.5 ft height 2:1 bank slope</u> <u>Photos 016 Facing E 017 Facing W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	<u>None</u>			Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>3</u> x 5 = <u>815</u>
				Column Totals: <u>3</u> (A) <u>815</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum			<u>NI</u>	Hydrophytic Vegetation Indicators:
1. <u>Bromus rubens</u>	<u>ST1</u>	<u>Y</u>	<u>Upt</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>ST1</u>	<u>Y</u>	<u>NI-Upt</u>	<input type="checkbox"/> Prevalence index is ≤3.0'
3. <u>Amsinckia tessellata</u>	<u>ST1</u>	<u>Y</u>	<u>NI-Upt</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>X3</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: <u>Unvegetated (<5% cover)</u>				

SOIL

Sampling Point: 13-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	2.5Y 6/3	100					vgrs	
8-20	2.5Y 5/3	100					gvs	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moist at 6 inches

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (2 or more required)</u> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>> 20</u> Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>> 20</u>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____ _____		
Remarks: <u>No recent water flow - i.e none in this past rainy season</u> <u>OHWM Indicators: SS, SC</u> <u>Substrate: sand, gravel</u>		

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle K State: CA Sampling Point: 13-4
 Investigator(s): MW, Johnson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): NONE Slope (%): _____
 Subregion (LRR): D Lat: N 117.2102 Long: N 34.593 Datum: NAD 83
 Soil Map Unit Name: Nobona Cuadaback Complex 2 to 9% Slopes NWM classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Not blue line - sand wash - erosional feature</u>	<u>OHWM 8-12 ft wide</u> <u>0.5 ft height</u> <u>2:1 bank slope</u> <u>Photos 018 Facing W</u> <u>019 Facing E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u> <u>NL</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>10</u>				UPL species <u>10/10</u> x 5 = <u>50</u>
				Column Totals: <u>10/10</u> (A) <u>50</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Bromus rubens</u>	<u>42</u>	<u>Y</u>	<u>NE</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Mentzelia sp.</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Crotonanthus sp.</u>	<u>12</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Eschscholzia minutiflora</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>79</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

SOIL

Sampling Point: 13-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5 Y 6/3	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Vernal Pools (F9)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F1B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
 Moist at 6 inches

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): none
 Water Table Present? Yes _____ No Depth (inches): >20
 Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >20

Wetland Hydrology Present? Yes _____ No

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

Remarks:
 OTHM Indicators: ss, sh, pc - weak
 Substrate: Sand, some gravel

WETLAND DETERMINATION DATA FORM -- Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle K State: CA Sampling Point: 13-5
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): D Lat: W -117.263 Long: W 34.593 Datum: NAD 83
 Soil Map Unit Name: Neboma Underbrush Complex 2 to 9% Slopes NWI classification: N/A zone II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Not blue-line; erosional feature</u>	<u>OHWM 5 ft wide</u> <u>1-2 ft height</u> <u>1:1 bank slope</u> <u>Photos 020 Facing E</u> <u>021 " W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	<u>None</u>			Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>< 2</u> x 5 = <u>5</u>
Herb Stratum				Column Totals: <u>12</u> (A) <u>510</u> (B)
1. <u>Bromus rubens</u>	<u>1</u>	<u>NT</u>		Prevalence Index = B/A = <u>55.0</u>
2. <u>Erodium cicutarium</u>	<u>511</u>	<u>NT</u>		
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>12</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				___ Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
Total Cover: <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>99</u>				
% Cover of Biotic Crust <u>0</u>				
Remarks: <u>Unvegetated (<5% cover)</u>				

SOIL

Sampling Point: 13-5

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-12	2.5Y 6/2	100				Sand	
12-20	2.5Y 5/3	100				sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
Moist at 6 inches

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): NONE

Water Table Present? Yes _____ No Depth (inches): >20

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >20

Wetland Hydrology Present? Yes _____ No

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

Remarks:
OHWM Indicators: Sh, SC, SS, PC
Substrate: Sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle K State: CA Sampling Point: 13-6
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): D Lat: W -117.265 Long: N 34.592 Datum: NAD 83
 Soil Map Unit Name: Nebraska sandstone & shale complex 2 to 9% slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Not blue line; erosional feature</u>	<u>DHWM 8 ft wide</u> <u>0.5 ft height</u> <u>2:1 bank slope</u> <u>Photos 022 Facing W</u> <u>023 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u> <u>NL</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>78</u> x 5 = <u>3540</u>
				Column Totals: <u>78</u> (A) <u>3540</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Phacelia distans</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>57</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Bromus tectorum</u>	<u>1</u>	<u>Y</u>	<u>INI</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>73</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

Sampling Point: 13-6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-20</u>	<u>2.5Y6/3</u>	<u>10D</u>					<u>gr. s</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): NONE

Water Table Present? Yes _____ No Depth (inches): >20

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >20

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: SS, SC, sh, PC

Substrate: Sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/31/08
 Applicant/Owner: Circle Point State: CA Sampling Point: B-7
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: -117.267 Long: N 34.588 Datum: NAD 83
 Soil Map Unit Name: CAJON-ARIZO complex 2 to 15% slopes NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Bell Mountain Wash - secondary channel</u> <u>Trib. to Mojave River</u>	<u>DHWM @ 220 ft wide</u> <u>< 0.5 ft height</u> <u>4:1 bank slope</u> <u>Photos 025 Facing NE</u> <u>026 SW</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Encelia paniculata</u>	<u>5</u>	<u>Y^{NL}</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>3</u>	<u>Y^{NL}</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>1</u>	<u>N^{NL}</u>	<u>UPL</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>9</u>				UPL species <u>1816</u> x 5 = <u>6580</u>
				Column Totals: <u>1816</u> (A) <u>6580</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Bromus rubens</u>	<u>5</u>	<u>N</u>	<u>NI</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Bromus tectorum</u>	<u>5</u>	<u>N^{NL}</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Phacelia distans</u>	<u>5</u>	<u>N^{NL}</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Amsinckia fassellata</u>	<u>5</u>	<u>N^{NL}</u>	<u>UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>17</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

SOIL

Sampling Point: 13-8⁷

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5Y 5/2	100					ex grs	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) 	<ul style="list-style-type: none"> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) 	Indicators for Problematic Hydric Soils³: <ul style="list-style-type: none"> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u> <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) 	<ul style="list-style-type: none"> <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks) 	<u>Secondary Indicators (2 or more required)</u> <ul style="list-style-type: none"> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20</u>
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20</u>

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: pc, ss, sd (not strong)
 Substrate: sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: Imperial/SB Sampling Date: 10/3/2009
 Applicant/Owner: Circle K State: CA Sampling Point: V-5-1
 Investigator(s): J. Halson / Y. Hirschman Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Flat Slope (%): 1
 Subregion (LRR): S Lat: W -117.226904 Long: N 34.6401 Datum: NAD 83
 Soil Map Unit Name: Canyon-Arroyo Complex 2-15% Slopes NWI Classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" Present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <u>N/A</u>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: Photo: 1192 1193			

VEGETATION

Tree Stratum (Plot size: <u>1</u>)	Absolute % Cover	Dominant Species?	Indicator Status?	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Shrub Stratum (Plot size: <u>1</u>)	Absolute % Cover	Dominant Species?	Indicator Status?	Prevalence Index Worksheet:
1. <u>Larrea tridentata</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>Ypt</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species x1 = _____
3. _____				FACW species x2 = _____
4. _____				FAC species x3 = _____
5. _____				FACU species x4 = _____
Total Cover: <u>2</u>				UPL species x5 = <u>20</u>
				Column Totals: <u>4</u> (A) <u>20</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum (Plot size: <u>1</u>)	Absolute % Cover	Dominant Species?	Indicator Status?	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y</u>	<u>NL</u> <u>Ypt</u>	Dominance Test is >50% _____
2. <u>Scleranthus arabiensis</u>	<u>1</u>	<u>Y</u>	<u>NL</u> <u>Ypt</u>	Prevalence Index is ≤3.0 ¹ _____
3. _____				Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____
4. _____				Problematic Hydrophytic Vegetation ¹ (Explain) _____
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum (Plot size: <u>1</u>)	Absolute % Cover	Dominant Species?	Indicator Status?	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>44</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
	<u>lo pit dug</u>							

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

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Sandy Redox (S5)</p> <p>Stripped Matrix (S6)</p> <p>Loamy Mucky Mineral (F1)</p> <p>Loamy Gleyed Matrix (F2)</p> <p>Depleted Matrix (F3)</p> <p>Redox Dark Surface (F6)</p> <p>Depleted Dark Surface (F7)</p> <p>Redox Depressions (F8)</p> <p>Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes N/A No _____

Remarks: Sand. No soil pit dug.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Salt Crust (B11)</p> <p>Biotic Crust (B12)</p> <p>Aquatic Invertebrates (B13)</p> <p>Hydrogen Sulfide Odor (C1)</p> <p>Oxidized Rhizospheres along Living Roots (C3)</p> <p>Presence of Reduced Iron (C4)</p> <p>Recent Iron Reduction in Plowed Soils (C6)</p> <p>Thin Muck Surface (C7)</p> <p>Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

Water table Present? Yes _____ No _____ Depth (inches): _____

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: 0 HWM 2'; TOB 3' Blue line on topo. Trails to Bell Mountain Wash to Mojave River

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: Irving / SB Sampling Date: 10/3/2009
 Applicant/Owner: Circle K State: LA Sampling Point: V-5-2
 Investigator(s): J. Holson / S. Hickman Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace / Bajada Local relief (concave, convex, none): Flat Slope (%): 5
 Subregion (LRR): D East W-117, 214699 Long N 34, 6562.2 Datum: NAD 83
 Soil Map Unit Name: Helendale-Bryman loamy sands 2-5% slopes NWI Classification: N/A 20NE11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks)
 Are Vegetation NO, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" Present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <u>N/A</u>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: 1194 1195 photos	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status?	
Tree Stratum (Plot size: <u>1</u>)				Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2.				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Shrub Stratum (Plot size: <u>1</u>)				Prevalence Index Worksheet:
1. <u>Hymenoclea salsola</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ephedra nevadensis</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	OBL species _____ x1 = _____
3.				FACW species _____ x2 = _____
4.				FAC species _____ x3 = _____
5.				FACU species _____ x4 = _____
Total Cover: <u>2</u>				UPL species <u>4</u> x5 = <u>20</u>
Herb Stratum (Plot size: <u>1</u>)				Column Totals: <u>4</u> (A) <u>20</u> (B)
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>5.0</u>
2. <u>Scleranthus arabicus</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>2</u>				Hydrophytic Vegetation Indicators:
Woody Vine Stratum (Plot size: <u>1</u>)				_____ Dominance Test is >50%
1.				_____ Prevalence Index is ≤3.0 ¹
2.				_____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet)
Total Cover: <u>0</u>				_____ Problematic Hydrophytic Vegetation ¹ (Explain)
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks:

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	light tan							

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

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Sandy Redox (S5)</p> <p>Stripped Matrix (S6)</p> <p>Loamy Mucky Mineral (F1)</p> <p>Loamy Gleyed Matrix (F2)</p> <p>Depleted Matrix (F3)</p> <p>Redox Dark Surface (F6)</p> <p>Depleted Dark Surface (F7)</p> <p>Redox Depressions (F8)</p> <p>Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F1B)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

N/A

Remarks: sand.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (E3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

Water table Present? Yes _____ No _____ Depth (inches): _____

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: 0.14 W.M. 6'; TOB 7' Blue line on topo. Bell Mountain Wash; trib to Mojave River.

R+B, SO

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Brisbane Valley-Wild Wash

HBG Watershed ID # 03

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 3

Watershed Name: Brisbane Valley - Wild Wash

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

HBG OHWM Field Data Sheet (Arid West) BASSANIE VALLEY - WILD WASH												
HBG Team # TH/RP/GD		Project Name: DesertXpress		HBG Sub-Basin # (1-41) 3		HUC 12# 180902080802		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-1-10	1005	3	3D1	C113	1.7	A	D	yes	A: 13 D: 10	B: 6,11,16,3 E:	C: F: 18	culvert under Highway
5-1-10	1010	3	3D2	C113	1.1	A	D	yes	A: 13 D: 12	B: 6,11,12,13 E:	C: F: 18	small culvert under highway
5-1-10	1027	3	3D3	C113	2.5	A	D	yes	A: D: 10	B: 6,11,12,13 E:	C: F: 18	sample site located below fence
5-1-10	1045	3	3D4	C113	0.70	A	D	yes	A: D: 10	B: 6,11,12 E:	C: F: 18	small culvert
5-1-10	1019	104	3D5a	C113	39.10	A	D	yes	A: 5,6 D: 10	B: 6,11,12,13 E:	C: F: 18	
5-1-10			3D5b	C113	39.10	A			A: D:	B: E:	C: F:	
5-1-10			3D5c	C113	11.30	A			A: D:	B: E:	C: F:	

HBG OHWM Field Data Sheet (Arid West) BRUSBAKE VALLEY - WILCO WASH												
HGB Team # Ty/RP/GO, CH		Project Name: DesertXpress			HBG Sub-Basin # (1-41) 3			HUC 12 # 180902080802				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-1-10			3D5D		1.80	A	D		A:	B:	C:	
5-1-10	1105	3	3i6	C113	—	I	D	No	A:	B:	C:	No flow below guard apron of culvert.
5-1-10			3MD9		30.00	A			A:	B:	C:	No drainage ←
5-1-10			3D10		2.0	A			A:	B:	C:	
5-1-10			3MD11		30.00				A:	B:	C:	
5-1-10			3MD11a		30.00	A			A:	B:	C:	
5-1-10	1348	104	3D26	C114	1.50	A	D	yes	A: 5	B: 6, 11, 12, 13	C:	
			3D27		0.5	A	D	yes	D: 10	E:	F: 18	
									A: 5	B: 6, 11, 12, 13	C:	
									D: 10	E:	F: 18	
									A: 5	B: 6, 11, 12, 13	C:	
									D: 10	E:	F: 18	

HGB OHWM Field Data Sheet (Arid West) **BRISBANE VALLEY - WILD WASH**
 HGB Team # **TR/RP/GO, G-H** Project Name: **DesertXpress** HUC 12 # **180902080802**

Drainage Data										Comments		
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
5-1-10	1345	1 or 4	3627	C114	-	I	D	NO	A: B: C: D: E: F:	B: E:	C: F:	cut off at fence, no flow
10-12-10	-	5	3028		0.50	A	D	YES	A: D: B: E: C: F:	E: B: F: 18	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	
									A: D: B: E: C: F:	B: E:	C: F:	

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Brisbane Valley-Wild Wash***

HBG Watershed ID # 03

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/29/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 10-1
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W 117.242 Long: N 34.791 Datum: NAD 83
 Soil Map Unit Name: Carson Sand 2 to 7% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Railroad bridge. End of Wild Wash</u>	<u>OHWM 10 ft wide</u> <u>0.5 ft height</u> <u>> 4:1 bank slope</u> <u>Photos "March 29-30"</u> <u>043 Facing NW</u> <u>044 Facing SE</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>D</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
Total Cover: _____				Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u> <u>None</u>				OBL species _____ x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species <u>1</u> x 4 = <u>4</u>
4. _____	_____	_____	_____	UPL species <u>H3</u> x 5 = <u>2015</u>
5. _____	_____	_____	_____	Column Totals: <u>4</u> (A) <u>2019</u> (B)
Total Cover: _____				Prevalence Index = B/A = <u>54.75</u>
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Schismus sp.</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Sisymbrium altissimum</u>	<u>1</u>	<u>Y</u>	<u>FACU</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>4</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>96</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: <u>Unvegetated - < 5% cover</u>				

SOIL

Sampling Point: 10-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-20</u>	<u>2.5 Y 5/2</u>	<u>100</u>					<u>ex gr S</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moist at 5 inches. Granite-derived sand + gravel

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>720</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>720</u>	

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

Remarks: Railroad bridge. No apparent surface connection to Mojave River - channel/wash is blocked by grading and piles of cow manure.

OHWM Indicators: SL, SS, Sh, sd, ld, pc

Substrate: sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Circle K State: CA Sampling Point: 17-1
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Flat Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): D Lat: W -117.201233 Long: W 34.710468 Datum: NAD 83
 Soil Map Unit Name: Mirage Joshua Complex 2-15% slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>0</u> ft wide <u>0.5</u> ft height <u>3:1</u> bank slope Photos <u>017 E</u> <u>016 W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0/3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____			<u>NL</u>	
<u>upl</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>19%</u>	<u>Y</u>	<u>upl</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>19%</u>			<u>NL</u>	UPL species <u>114</u> x 5 = <u>5570</u>
<u>upl</u>				Column Totals: <u>114</u> (A) <u>5570</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Bromus madritensis</u>	<u>5%</u>	<u>Y</u>	<u>upl</u>	___ Dominance Test is >50%
2. <u>Brassica tournefortii</u>	<u>1%</u>	<u>NNL</u>	<u>upl</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Erodium cicutarium</u>	<u>1%</u>	<u>NWL</u>	<u>upl</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Amaranthus retrofractus</u>	<u>1%</u>	<u>NNL</u>	<u>upl</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Bromus tectorum</u>	<u>3%</u>	<u>NNL</u>	<u>upl</u>	
6. <u>Staphylea trifolia</u>	<u>1%</u>	<u>NNL</u>	<u>upl</u>	
7. <u>Sphaeralcea ambigua</u>	<u>1%</u>	<u>NNL</u>	<u>upl</u>	
8. _____				
Total Cover: <u>10%</u>			<u>NL</u>	
<u>upl</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>90%</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 17-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	2.5 Y 6/2						GRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Moisture @ 4"
 [Shovel redox @ 8" due to sand and gravel

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

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

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

Remarks: 2 4' dia culverts under I-15

OHWM Indicators: SC, Sh, Ss, Sd.
 Substrate: sand, gravel, cobbles, boulder

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Circle Point State: CA Sampling Point: 17-3
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none) Slope (%): 2
 Subregion (LRR): D ~~Lat: W -117.207544~~ Long: N 34.1099443 Datum: NAD 83
 Soil Map Unit Name: Canyon-Arizo Complex 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil A1, or Hydrology N 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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Wild Wash</u>	<u>DHWM 20 ft wide</u> <u>1 ft height</u> <u>4:1 bank slope</u> <u>Photos 020 W</u> <u>021 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species <u>4</u> x 5 = <u>20</u>
Total Cover: <u>0%</u>				Column Totals: <u>4</u> (A) <u>20</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5.0</u>
1. <u>Bromus madriensis</u>	<u>21%</u>	<u>Y</u>	<u>NL</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0' ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Erodium cicutarium</u>	<u>21%</u>	<u>Y</u>	<u>NL</u>	
3. <u>Pectocarya platycarpa</u>	<u>21%</u>	<u>Y</u>	<u>NL</u>	
4. <u>Brossica tournefortii</u>	<u>21%</u>	<u>Y</u>	<u>NL</u>	
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>19.4%</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>99%</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	2.5Y 5/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: moisture @ 4" , shovel refusal @ 10" due to gravel

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks: 260' concrete bridge on I-15

OHWM Indicators: Sh, Sc, Sd, Ss

Substrate: gravel, cobble, sand, boulders

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circlepoint State: CA Sampling Point: 1B-1
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: 34.188 Long: 117.188 Datum: NAD 83
 Soil Map Unit Name: Mirage-Joshua Complex 2 to 5% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely infrequent, short-duration flows</u>	<u>DHWM 1 ft wide, 0.5 ft height, 4:1 bank slope</u> <u>Photos 037 W, 038 NE</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Parthenocissis aculeata</u>	<u>1%</u>	<u>Y</u>	<u>FACW*</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.2</u> (A/B)
4. _____				
Total Cover: <u>1%</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>1%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Leavenworthia tridentata</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. <u>Ambrosia dumosa</u>	<u>2%</u>	<u>Y</u>	<u>NL UPL</u>	FACW species <u>1</u> x 2 = <u>2</u>
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>4%</u>				UPL species <u>48</u> x 5 = <u>240</u>
				Column Totals: <u>49</u> (A) <u>242</u> (B)
				Prevalence Index = B/A = <u>4.9</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>20%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Amsinckia tessellata</u>	<u>5%</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Brassica tournefortii</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Bromus madri-louisii</u>	<u>3%</u>	<u>N</u>	<u>NL UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Stephanomeria pauciflora</u>	<u>5%</u>	<u>N</u>	<u>UPL</u>	
6. <u>Schismus barbatus</u>	<u>10%</u>	<u>Y</u>	<u>NL UPL</u>	
7. _____				
8. _____				
<u>20% threshold = 6.8%</u> Total Cover: <u>44%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>56</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

Sampling Point: 18-7

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13"	10YR 4/4	100					YGR5L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rock
 Depth (inches): 13"

Hydric Soil Present? Yes No

Remarks: moisture @ 4" , shovel refusal @ 13"

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): none

Water Table Present? Yes No Depth (inches): > 13

Saturation Present? (includes capillary fringe) Yes No Depth (inches): > 13

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM Indicators: SD, SH, SC
Substrate: gravel, sand, cobble

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 18-2
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -117.188 Long: N 34.729 Datum: NAD 83
 Soil Map Unit Name: Mirage-Joshua Complex 2 to 5% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely infrequent, short-duration flows</u>	<u>DHWM 2 ft wide</u> <u>0.5 ft height</u> <u>3:1 bank slope</u> <u>Photos 039 W</u> <u>040 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>LARREA tridentata</u>	<u>29%</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
2. <u>Buccia acutis</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species <u>1</u> x 4 = <u>4</u>
5. _____				UPL species <u>113</u> x 5 = <u>565</u>
Total Cover: <u>3%</u>				Column Totals: <u>114</u> (A) <u>565</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>84.92</u>
1. <u>Brossica tenuifolia</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	Hydrophytic Vegetation Indicators:
2. <u>Eriodorum cicutaricum</u>	<u>2%</u>	<u>N</u>	<u>NL UPL</u>	— Dominance Test is >50%
3. <u>Bromus madriensis</u>	<u>2%</u>	<u>N</u>	<u>NL UPL</u>	— Prevalence Index is ≤3.0 ¹
4. <u>Bromus tectorum</u>	<u>2%</u>	<u>N</u>	<u>NL UPL</u>	— Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Amaranthus tessellatus</u>	<u>2.1%</u>	<u>N</u>	<u>NL UPL</u>	— Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>Schismus barbatus</u>	<u>2.1%</u>	<u>N</u>	<u>NL UPL</u>	
7. <u>Salsola tragus</u>	<u>2.1%</u>	<u>N</u>	<u>NL UPL</u>	
8. <u>Avena barbata</u>	<u>2.1%</u>	<u>N</u>	<u>NL UPL</u>	
<u>20% threshold = 1.6%</u> Total Cover: <u>8% 11</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
% Bare Ground in Herb Stratum <u>92</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

Sampling Point: 18-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-12"</u>	<u>10YR4/4</u>	<u>100</u>					<u>EXPOS</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rock
 Depth (inches): 12

Hydric Soil Present? Yes No

Remarks: moisture @ 4", shovel refusal @ 12"

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): none

Water Table Present? Yes No Depth (inches): >12

Saturation Present? Yes No Depth (inches): >12

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: Tortoise fence trapping, sediment, culvert 3' dia

OHWM Indicators:
 Substrate: cobble, gravel, bedrock, sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle K/Bint State: CA Sampling Point: 1B-3
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): D Lat: W -117.190 Long: N 34.727 Datum: NAD 83
 Soil Map Unit Name: Cajon-Arizo Complex 2 to 15% Slopes NWI classification: N/A EDWEL
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	<u>DHWM 4 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 041 E</u> <u>042 NW</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>(Dead) Parkinsonia aculeata</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Artemisia tridentata</u>	<u>2%</u>	<u>Y</u>	<u>NLUPE</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ephedra nevadensis</u>	<u>4%</u>	<u>Y</u>	<u>NLUPE</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>2% 3%</u>				UPL species <u>9/11</u> x 5 = <u>4555</u>
				Column Totals: <u>8/11</u> (A) <u>4555</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Bromus madritensis</u>	<u>2%</u>	<u>Y</u>	<u>NLUPE</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>2%</u>	<u>Y</u>	<u>NLUPE</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Schismus barbatus</u>	<u>1%</u>	<u>N</u>	<u>NLUPE</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Alysicarpus heteromeres</u>	<u>1.6%</u>	<u>N</u>	<u>NLUPE</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Brassica tournefortii</u>	<u>1.4%</u>	<u>N</u>	<u>NLUPE</u>	
6. <u>Bromus tectorum</u>	<u>1%</u>	<u>N</u>	<u>NLUPE</u>	
7. _____				
8. _____				
Total Cover: <u>7% 8%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>93</u>	% Cover of Biotic Crust <u>0</u>			
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	2.5Y 6/1	100					EKG-RS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: show rotol @ 12", moisture @ 6"

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >12
 Saturation Present? Yes _____ No Depth (inches): 712
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: tortoise fence traps sediment, and diverting flow to north for pool, culvert 3' dia

OHWM Indicators: SH, SC, SD

Substrate: cobble, gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 18-4
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -117.192 Long: N 34.724 Datum: NAD 83
 Soil Map Unit Name: Cajon-Ariza Complex 2 to 15% Slopes NWI classification: N/A 23NE11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>6</u> ft wide <u>1.5</u> ft height <u>3:1</u> bank slope Photos <u>043 E</u> <u>044 W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>56</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>1%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Larrea tridentata</u>	<u>2%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	OBL species _____ x 1 = _____
3. <u>Hymenoclea salsola</u>	<u>1%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>4%</u>				UPL species <u>78</u> x 5 = <u>3540</u>
Herb Stratum				Column Totals: <u>78</u> (A) <u>3540</u> (B)
1. <u>Brassica tournefortii</u>	<u>2%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Eradian cicutarium</u>	<u>1%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
3. <u>Bromus madritensis</u>	<u>1.2%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>3.9%</u>				
Woody Vine Stratum				
1. _____				
2. <u>1</u>				
Total Cover: <u>1</u>				
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	2.5 Y 6/1	100					VGR-S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: shovel refusal @ 10", moisture @ 6"

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	<p>Secondary Indicators (2 or more required)</p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquifer (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
--	--

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 10

Saturation Present? Yes _____ No Depth (inches): > 10

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: 2 4' dia culverts, tortoise fence trapping sediment and diverging flow 50' to N

OHWI Indicators: SD, SH, SC
 Substrate: cobbles, sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2009
 Applicant/Owner: Circle K State: CA Sampling Point: 18-5
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -117.196197 Long: N 34.719685 Datum: NAD 83
 Soil Map Unit Name: Cajon-Arizo Complex 25% slopes NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely infrequent, short-duration flows</u>	<u>DHWM 3 ft wide</u> <u>0.5 ft height</u> <u>4:1 bank slope</u> <u>Photos 045 W</u> <u>046 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (AB)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Adenophyllum parryi</u>	<u>18</u>	<u>N</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>29</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>32%</u>				UPL species <u>147</u> x 5 = <u>735</u>
				Column Totals: <u>147</u> (A) <u>735</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>5%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Amsinckia tessellata</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Brassica tournefortii</u>	<u>22%</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Schismus barbatus</u>	<u>5%</u>	<u>Y</u>	<u>NL UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Stephanomeria pycnantha</u>	<u>5%</u>	<u>N</u>	<u>NL UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>12%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground In Herb Stratum <u>90</u>	% Cover of Biotic Crust <u>0</u>			
Remarks: <u>tortoise crossing w/ fence</u>				

Sampling Point: 18-5

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-20"</u>	<u>10YR 4/4</u>	<u>100</u>					<u>EXGRSL</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): none

Water Table Present? Yes _____ No 0 Depth (inches): >20

Saturation Present? Yes _____ No 0 Depth (inches): >20

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks: 2 4' dia culverts

OHWM Indicators: SC, SD, SH,
Substrate: cobble, gravel, sand.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 18-6
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -117.197729 Long: N 34.716868 Datum: NAD 83
 Soil Map Unit Name: Cojon Arizo Complex 2-15% slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>Y</u>	
Wetland Hydrology Present? Yes _____ No <u>Y</u>	
Remarks:	OHWM <u>2.5</u> ft wide <u>0.5</u> ft height <u>3:1</u> bank slope Photos <u>047 E</u> <u>048 W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hyphaenodendron salsola</u>	<u>2%</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>2%</u>				UPL species <u>425</u> x 5 = <u>2125</u>
				Column Totals: <u>425</u> (A) <u>2125</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Brodiaea cicutaria</u>	<u>20%</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Grassca fourchortina</u>	<u>1%</u>		<u>NNLUPE</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Phacelia distans</u>	<u>24%</u>		<u>NNLUPE</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Amsinckia besseyana</u>	<u>1%</u>		<u>NNLUPE</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>28%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>90</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 18-6

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	10YR5/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: → shovel refusal @ 10" due to cobbles, moisture below 6"

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none
 Water Table Present? Yes _____ No Depth (inches): >10
 Saturation Present? Yes _____ No Depth (inches): >10
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: tortoise fence trapping sediment, 2 4" dia culverts

OHWM Indicators: sd, sh, sc

Substrate: cobble, gravel sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 1.8-7
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -117.198 Long: N 34.714 Datum: NAD 83
 Soil Map Unit Name: Cajon-Arizo Complex 2-15% Slopes NWI classification: HA ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Very infrequent, short-duration flows</u>	<u>OHWM 4 ft wide</u> <u>0.5 ft height</u> <u>4:1 bank slope</u> <u>Photos 049 W</u> <u>050 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>2%</u>	<u>Y</u>	<u>NL UPE</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>2%</u>				UPL species <u>1214</u> x 5 = <u>6070</u>
				Column Totals: <u>1214</u> (A) <u>6070</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Amsinckia tessellata</u>	<u>2.6%</u>	<u>N</u>	<u>NL UPE</u>	___ Dominance Test is >50%
2. <u>Bromus tectorum</u>	<u>1%</u>	<u>N</u>	<u>NL UPE</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Erodium cicutarium</u>	<u>4%</u>	<u>Y</u>	<u>NL UPE</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Bromus madroterus</u>	<u>2%</u>	<u>Y</u>	<u>NL UPE</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Brassica tournefortii</u>	<u>1%</u>	<u>N</u>	<u>NL UPE</u>	
6. <u>Schismus barbatus</u>	<u>2.6%</u>	<u>N</u>	<u>NL UPE</u>	
7. <u>Phacelia distans</u>	<u>2.6%</u>	<u>N</u>	<u>NL UPE</u>	
8. <u>Trisetum aestivum</u>	<u>2.6%</u>	<u>N</u>	<u>NL UPE</u>	
Total Cover: <u>10%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>90</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

Sampling Point: 10-7

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	2.5 Y 6/2	100					S	
2-10"	10 YR 4/4	100					EXORS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

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

Remarks: Shovel refusal @ 10", moisture below 6"

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquifer (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:
 Surface Water Present? Yes _____ No X Depth (inches): none
 Water Table Present? Yes _____ No X Depth (inches): >10
 Saturation Present? Yes _____ No X Depth (inches): >10
 (includes capillary fringe)
 Wetland Hydrology Present? Yes _____ No X

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

Remarks: 3 4' dia culverts,
OHWM Indicators: Sd, Sc, Sh, Ss
Substrate: sand, gravel

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Town of Lenwood-Mojave River

HBG Watershed ID # 04

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 4

Watershed Name: Town of Lenwood-Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/stone 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriarian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understorey 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriarian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HGB OHWM Field Data Sheet (Arid West) <i>TOWN OF LEN WOOD - MOJAVE RIVER</i>												
HGB Team #		Project Name: <i>DesertXpress</i>			HGB Sub-Basin # (1-41) <i>4</i>			HUC 12# <i>180902081102</i>				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-12-10	0406	1	4D1	C125	0.8 1.0	A	D	No	A: D: 10	B: 6, 12, 13 E:	C: F: 18	Use note pages at back of notebook for comments. Put comment number in block below.
5-12-10	0408	1	4MD2	C125	4.9 4.1	A	D	No	A: 3, 5 D: 10	B: 6, 12, 13, 11 E:	C: F: 18	
5-12-10	0410	1	4MD3	C125	8.3 8.4	A	D	No	A: 1, 2, 6 D: 10, 11	B: 6, 11, 12, 13, 3 E:	C: F: 18	
5-12-10	0415	1	4D4	C125	1.7 1.8	A	D	No	A: D:	B: E:	C: F:	parallel to highway flows toward 4MD3 channel
5-12-10	0418	1	4D5	C125	1.1 1.2	A	D	No	A: D: 10	B: 6, 12, 13 E:	C: F: 18	Runs parallel to Road
5-12-10	0420	1	4D6	C125	2.3 2.4	A	D	No	A: 5 D: 10	B: 6, 12, 13 E:	C: F: 18	
5-12-10	0443	1	4MD7	C125	32.2	A	D	yes	A: 5, 9, 18 D: 10	B: 6, 11, 12, 13, 3, 10 E:	C: F: 18	Drainage beyond cement apron #1

HGB OHWM Field Data Sheet (Arid West)												
Town of Lenwood - Mojave River												
Project Name: DesertXpress												
HGB Team #												
HGB Sub-Basin # (1-41) 4												
HUC 12# 180902081102												
Comments												
Use note pages at back of notebook for comments. Put comment number in block below.												
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-12-10	0454 Pm	1	4MD8	C125	8.8 8.80	A	D	yes	A: 16, 3, 5, 6 D: 10	B: 3, 6, 10, 11, 12, 13 E:	C: F: 18	
5-12-10	0509 Pm	1	4MD9	C124	12.5 12.6 8.80	A	D	No	A: 2, 5, 6 D: 10	B: 6, 10, 11, 12, 13 E:	C: F: 18	RTH field verified
5-12-10	0513 Pm	1	4D10	C124	2.5 1.9	A	D	No	A: D: 10	B: 6, 12, 13 E:	C: F: 18	Reverted to Highway Flows toward 4MD9
5-12-10	1421	2	4MD11	C126	12.0	A	D	yes	A: 5, 6 D: 10	B: 6, 12, 13 E:	C: F: 18	(7MD11)*
5-12-10	1434	2	4D12	C126	1.7 1.7	A	D	No	A: D: 10	B: 6, 12, 13 E:	C: F: 18	(7D12)
5-12-10	1438	2	4MD13	C126	8.6 8.5	A	D	yes	A: 3, 5, 6 D: 10	B: 6, 11, 12, 13 E:	C: F: 18	heavily incised major channel (7MD13)
5-12-10	1502	2	4D14	C126	1.0 1.0	A	D	yes	A: D: 10	B: 6, 12, 13 E:	C: F: 18	(7D14)

HBG OHWM Field Data Sheet (Arid West) TOWN OF LEWISWOOD - MORGAN RIVER

HGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1-41)		HUC 12 #		Comments				
		4		4		18,00,02,08,11,02						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5-12-10	1508	2	4MD15	C126	4.0	A	D	yes	A: 13,5 D: 10	B: 6, 12, 13 E:	C: F: 18	Use note pages at back of notebook for comments. Put comment number in block below. concrete structure directs water to erosion gully on highway side slope (FMD 15)
5-30-10	1456	10r4	4R2A	C125	NO GPS POINT	A	D	yes	A: 1, 6, 7 D: 10	B: 2, 6, 12, 13 E:	C: F: 18	No Wetlands
5-30-10	1543	10r4	4R2B	C125	NO GPS POINT	A	D	yes	A: 2 D: 10	B: 2, 6, 12, 13 E:	C: F: 18	No Wetlands
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

Comment Number	Comment
#1	Drainage beyond cement apron. There is a tributary drainage running into it from the west that runs parallel to the highway.

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
Town of Lenwood-Mojave River

HBG Watershed ID # 04

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 19-4
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none) Slope (%): _____
 Subregion (LRR): D Lat: W -117.177 Long: N 34.741 Datum: NAD 83
 Soil Map Unit Name: Miraca-bush complex 2-5 5/8 Strata NWI classification: A/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely only flows after extreme high rainfall for short durations</u>	<u>OHWM 4 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 035 E-facing</u> <u>036 W-facing</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Hymenoclea salsola</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
2. <u>Acidobryum parophylloides</u>	<u>2.5%</u>	<u>N</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species <u>710</u> x 5 = <u>3550</u>
Total Cover: <u>2%</u>				Column Totals: <u>710</u> (A) <u>3550</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>
1. <u>Erodium cicutarium</u>	<u>5%</u>	<u>Y</u>	<u>NL UPL</u>	Hydrophytic Vegetation Indicators:
2. <u>Chamaesyce albomarginata</u>	<u>3.5%</u>	<u>N</u>	<u>NL UPL</u>	___ Dominance Test is >50%
3. <u>Amschalinia tessellata</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
4. <u>Bromus madriensis</u>	<u>2.5%</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				
7. _____				
8. _____				
Total Cover: <u>6%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>94</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 19-4

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-20"	2.5 Y 5/2	100					EXG-R5	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: moisture @ 4"

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >20

Saturation Present? Yes _____ No Depth (inches): >20

Wetland Hydrology Present? Yes _____ No

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

Remarks: 2 concrete 4' x 10' culverts, flow partially blocked

OHWM Indicators: SH, SD (dissect past)
 Substrate: gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 19-4
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none) Slope (%): _____
 Subregion (LRR): D Lat: W -117.177 Long: N 34.741 Datum: NAD 83
 Soil Map Unit Name: Miragobobus complex 2-5% Slope NWI classification: A/B ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely only flows after extreme high rainfall for short durations</u>	<u>OHWM 4 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 035 E-facing</u> <u>036 W-facing</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>1%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Adelphokum parophylloides</u>	<u><1%</u>	<u>N</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>1%</u>				UPL species <u>2</u> x 5 = <u>10</u>
				Column Totals: <u>7</u> (A) <u>35</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>5%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Chamaesyce albomarginata</u>	<u><1%</u>	<u>N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Amaranthus terrellata</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Bromus madriensis</u>	<u><1%</u>	<u>N</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>6%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>94</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 19-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5 Y 5/2	100					EYGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: moisture @ 4"

HYDROLOGY

Welland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverline)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverline)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverline)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>	Welland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	

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

Remarks: 2 concrete 4' x 10' culverts, flow partially blocked

OHWM Indicators: SH, SD (discontinuity)

Substrate: gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Circle K Int State: CA Sampling Point: 22-1
 Investigator(s): M Widdowson C Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Alluvial/valley floor Local relief (concave, convex, none): (none) Slope (%): _____
 Subregion (LRR): D Lat: W -117.163 Long: N 34.839 Datum: NAD 83 Zone 11
 Soil Map Unit Name: Cajon Sand, 2 to 9% Slopes NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N Soil N or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N Soil N or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM <u>9</u> ft wide Photos "March 27" <u>30"</u> <u>0.5</u> ft height <u>035</u> Facing N <u>2:1</u> bank slope <u>036</u> S

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>2</u> x 5 = <u>10</u>
				Column Totals: <u>2</u> (A) <u>10</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Eschscholzia minutiflora</u>	<u>1</u>		<u>NL UPL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Schismus sp.</u>	<u>1</u>		<u>NL UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
% Bare Ground in Herb Stratum <u>98</u>	% Cover of Biotic Crust <u>0</u>			
Remarks: <u>Unvegetated: < 5% cover</u>				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 5/3	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F1B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moist below 6"

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (Inches): <u>none</u>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (Inches): <u>>20</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (Inches): <u>>20</u>	

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

Remarks: No culvert under road, water would flow over. Channel has been bulldozed to clear north (downstream) of road.

OHWM Indicators: d, s, sc, ss

Substrate: sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 23-1
 Investigator(s): M. Widterson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W -117.163 Long: N 34.839 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand, 2 to 7% Slopes NWI classification: ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Braided wash that goes to Mojave R. near Huckleley Rd.</u>	<u>OHWM ~20 ft wide</u> <u>Combined ~0.5 ft height</u> <u>channels, 4:1 bank slope</u> <u>approx</u>
	<u>Photos</u> <u>033 Facing S (upstream)</u> <u>034 " N (downstream)</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Ephedra nevadensis</u>	<u>10</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Senecio armata</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
4. <u>Hymenoclea salsola</u>	<u>2</u>	<u>NNL</u>	<u>UPL</u>	FAC species _____ x 3 = _____
5. <u>Ambrosia dumosa</u>	<u>3</u>	<u>NNL</u>	<u>UPL</u>	FACU species _____ x 4 = _____
20% threshold = 10% Total Cover: <u>25</u>				UPL species <u>29</u> x 5 = <u>145</u>
Total Cover: _____				Column Totals: <u>29</u> (A) <u>145</u> (B)
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index = B/A = <u>5</u>
1. <u>Collinsia latifolia</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Chamaecrista fremontii</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	
3. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
20% threshold = 0.8 Total Cover: <u>4</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks: <u>Upland shrubs + annuals</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Sampling Point: 23-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5Y4/2	100					gr Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): None

Water Table Present? Yes _____ No Depth (inches): >20

Saturation Present? Yes _____ No Depth (inches): >20

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: cl, s, sd, s

Substrate: sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 24-1
 Investigator(s): M. Widdowson, C. Vögt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley floor / River flood plain Local relief (concave, convex, none): (none) Slope (%): _____
 Subregion (LRR): D Lat: W -117.134 Long: N 34 872 Datum: NAD 83
 Soil Map Unit Name: Villa Loamy Sand, Hummocky NWM classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Relatively recent flood control ditch, completely blocked by sand</u>	<u>(OHWM) ~10 ft wide</u> <u>_____ ft height</u> <u>: bank slope</u> <u>Photos 031 Facing N</u> <u>032 " S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				Prevalence Index worksheet:
Total Cover: _____				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum				OBL species _____ x 1 = _____
1. <u>Atriplex canescens</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	FACW species _____ x 2 = _____
2. _____				FAC species _____ x 3 = _____
3. _____				FACU species <u>6</u> x 4 = <u>24</u>
4. _____				UPL species <u>1</u> x 5 = <u>5</u>
5. _____				Column Totals: <u>7</u> (A) <u>29</u> (B)
Total Cover: _____				Prevalence Index = B/A = <u>4.14</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Amorpha sp. (ann)</u>	<u>1</u>	<u>N</u>	<u>>FACU</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Amorpha tessellata</u>	<u>1</u>	<u>NNL-type</u>		<input type="checkbox"/> Prevalence Index is ≤3.0'
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>No veg in bed of ditch; Atriplex & Amorpha on banks</u>				

SOIL

Sampling Point: 24-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 4/2	100					sic	moist
1-20	10YR 5/3	100					sana	moist

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 70

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): > 20

Wetland Hydrology Present? Yes _____ No

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

Remarks: Ditch is completely blocked at corridor crossing by huge amount of blown sand (full to top of levees) - see photos!

OHWM Indicators: None

Substrate: sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/27/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 25-1
 Investigator(s): M. Widdowson C Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W -117.083 Long: N 34.909 Datum: NAD 83
 Soil Map Unit Name: Rosamond Loam, Saline-alkali NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>Drainage feature that does not connect to any other feature</u>	<u>OHWM 5 ft wide 1.5 ft height 2:1 bank slope</u> <u>Photos 27-30 001 Facing N 002 n S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.3</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species <u>5</u> x 3 = <u>15</u>
5. _____				FACU species <u>3020</u> x 4 = <u>12080</u>
Total Cover: <u>20</u>				UPL species <u>10</u> x 5 = <u>50</u>
				Column Totals: <u>35</u> (A) <u>135145</u> (B)
				Prevalence Index = B/A = <u>3.854.14</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Hordeum murinum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	___ Dominance Test is >50%
2. <u>Chenopodium album</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	___ Prevalence Index is ≤3.0 ¹
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>15</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>85</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	2.5Y 5/2	100					sic	
2-5	2.5Y 5/2	100					fine sand	
5-9	2.5Y 5/2	100					sic	
9-20	2.5Y 5/2	100					fsl	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S8)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Soil moist below 1 inch. Data point at what appears to be lowest point in drainage swale

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input checked="" type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >14

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >14

Wetland Hydrology Present? Yes No _____

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

Remarks: 4' culvert - concrete - under dirt road. Drainage feature that stops at southmost dirt road - does not continue or connect to any other feature.
 OHWM Indicators: sd, ld, w, pc

Substrate: fine sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 25-2
 Investigator(s): M. Widdowson, C. Vint Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor / Middle Flood Plain Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W -117.121 Long: N 34.897 Datum: NAD 83
 Soil Map Unit Name: River Wash NWI classification: N/A 201511

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Mojave R. at Lenwood Rd.</u>	<u>OHWM 300 ft wide</u> <u>< 0.5 ft height</u> <u>3:1 bank slope</u> <u>Photos Mar 27-30</u> <u>010 Facing N</u> <u>011 " S</u> <u>012 " E</u> <u>013 " W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
Total Cover: <u>∅</u>				
Sapling/Shrub Stratum	<u>None</u>			Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>∅</u>				UPL species _____ x 5 = _____
Herb Stratum	<u>None</u>			Column Totals: _____ (A) _____ (B)
1. _____				Prevalence Index = B/A = <u>∅</u>
2. _____				
3. _____				Hydrophytic Vegetation Indicators:
4. _____				___ Dominance Test is >50%
5. _____				___ Prevalence Index is ≤3.0 ¹
6. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____				
Total Cover: <u>∅</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>∅</u>				
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust <u>∅</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: No vegetation within the OHWM. Scattered tamarix on banks

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-20	10YR 6/2	100					Sand	
0-1	2.5Y 2.5/1	100					Sic	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *Data point in small area of wash that has stratified surface layers of silty clay. Rest of wash is sand - granite derived.*

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquifer (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20</u>	

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

Remarks: *Any potential OHWM have been obliterated by wind-blown sand deposits. Flow events likely very infrequent here.*

OHWM Indicators: pc

Substrate: Sand

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Town of Johnstons Corner

HBG Watershed ID # 05

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 5

Watershed Name: Town of Johnstons Corner

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

TOWN OF JOHNSTON'S CORNER

HBG OHWM Field Data Sheet (Arid West)

HBG Team #		Project Name: DesertXpress		Drainage Data							HBG Sub-Basin # (1-41)		HUC 12 #		Comments	
Date	Time	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM					
5-1-10	1231	3	501	C120C	1.5	A	D	Yes	A: 16 D: 12	B: 12, 13, 6 E:		C: F: 18			Use note pages at back of notebook for comments. Put comment number in block below. 14 low separates to 2 active drainages	
5-1-10	1236	3	502	C120C	1.2	A	D	Yes	A: 16 D: 10 - part 12 - part	B: 12, 13, 6 E:		C: F: 18			OHWM near fence Active by drainage beyond fence	
5-1-10	1245	3	503	C120C	1.1	A	D	Yes	A: 16 near culvert D:	B: 12, 13, 6 E:		C: F: 18			OHWM only near fence, active drainage beyond fence	
5-1-10	1252	3	504	C120C	1.2	A	D	Yes	A: 16 near culvert D:	B: 12, 13, 6 E:		C: F: 18			OHWM for 25' near fence, active drainage by road fence	
5-1-10	1319	3	505	C119	1.3	A	D	No	A: 16 D:	B: 16, 13, 6 E:		C: F: 18			Comment # 1	
5-1-10	1324	3	506	C119	1.0	A	D	No	A: 16 near culvert D:	B: 12, 13, 6 E:		C: F: 18			Comment # 2	
5-1-10	1330	3	507	C119	1.8	A	D	No	A: 16 near culvert D: 12, 10	B: 12, 13, 6 E:		C: F: 18			Comment # 2	

-HBG OHWM Field Data Sheet (Arid West)

TOWN OF JOHNSTON'S CORNER

IGB Team # B 604H		Project Name: DesertXpress		Drainage Data										HUC 12 # 18090209101		Comments
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM			Comments		
2-1-12	1334	3	5D8	C118C	1.2 14"	A	D		A: 16 near culvert D: 10	B: 12, 13, 6 E:		C: F: 18		Flow away from road		
2-1-12	1344	3	5D9	C117C	1.1 13"	A	D		A: 13 D: 10	B: 12, 13, 6 E:		C: F:		Part of channel increased see comment #3		
5-1-12	1349	3	5D10	C117C	2.1 25"	A	D		A: 5, 10, 11, 12, 13 16, 18 D: 10	B: 2, 10, 11, 12 E: 5, 12		C: 5, 10, 11, 12 F: 15, 18		Part of channel increased see comment #3		
10-10-10		S	5D11		1.0	A	D		A: 5, 10, 11, 12, 13 16, 18 D: 3	B: 2, 10, 11, 12 E: 5, 12		C: F:				
10-12-10		S	5D12		1.3 10"	A	D		A: 5, 10, 11, 12, 13 16, 18 D: 3	B: 2, 10, 11, 12 E: 5, 12		C: 5, 10, 11, 12 F: 15, 18		RTH FIELD VERIFIED		
									A:	B:		C:				
									D:	E:		F:				
									A:	B:		C:				
									D:	E:		F:				

F-16-271

Comment Number	Comment
1	culverts under highway. Dissipation tracts present just by and culvert within a grade of drainage features. Each culvert basin is the down stream end of a detention basin on the south side of the road.
2	Drainages between culverts are inactive drainages blocked by construction of the highway.
3	Drainages at the north end of Basin 5 near the Hodge interchange are active drainages.

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
Town of Johnstons Corner

HBG Watershed ID # 05

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4/1/08
 Applicant/Owner: Circle K State: CA Sampling Point: 19-1
 Investigator(s): C.V. / M.B. Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Foot Slope Local relief (concave, convex, none): (none) Slope (%): 0-1
 Subregion (LRR): D Lat: W -117.168 Long: N 34.754 Datum: NAD 83
 Soil Map Unit Name: Mirage-Joshua Complex 2-5% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks:	OHWM <u>2'</u> ft wide <u>1'</u> ft height 1:1 bank slope Photos 029 SW 030 NE	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum 1. <u>Eriogonum fasciculatum</u> <u>5%</u> <u>YNL</u> <u>UPL</u> 2. <u>Hymenoclea salsola</u> <u>1.41%</u> <u>NNL</u> <u>UPL</u> 3. <u>Atriplex polycarpa</u> <u>1.41%</u> <u>N</u> <u>FACU</u> 4. _____ 5. _____ Total Cover: <u>7.82%</u>				OBL species _____ x 1 = _____	_____
Herb Stratum 1. <u>Erodium cicutarium</u> <u>15%</u> <u>YNL</u> <u>UPL</u> 2. <u>Hordeum murinum</u> <u>1%</u> <u>NNL</u> <u>UPL</u> 3. <u>Amsinckia tessellata</u> <u>1.2%</u> <u>NNL</u> <u>UPL</u> 4. <u>Brassica tournefortii</u> <u>1.4%</u> <u>NNL</u> <u>UPL</u> 5. <u>Phacelia distans</u> <u>1%</u> <u>NNL</u> <u>UPL</u> 6. <u>Bromus madritensis</u> <u>1%</u> <u>NNL</u> <u>UPL</u> 7. <u>Pectolarya heterocarpa</u> <u>1.4%</u> <u>NNL</u> <u>UPL</u> 8. <u>Chaenactis fremontii</u> <u>1.4%</u> <u>NNL</u> <u>UPL</u> 20% threshold = 4.2% Total Cover: <u>2%</u>				FACW species _____ x 2 = _____	_____
Woody Vine Stratum 1. _____ 2. _____ Total Cover: _____				FAC species _____ x 3 = _____	_____
% Bare Ground in Herb Stratum <u>80</u> % Cover of Biotic Crust <u>0</u>				FACU species <u>1</u> x 4 = <u>4</u>	_____
Remarks:				UPL species <u>2</u> x 5 = <u>10</u>	_____
				Column Totals: <u>2%</u> (A) <u>14%</u> (B)	_____
				Prevalence Index = B/A = <u>4.96</u>	_____
				Hydrophytic Vegetation Indicators:	
				___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	

Sampling Point: 19-1

SOIL

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-8	2.5Y	3/2	10YD			Exp S	Moisture @ 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Shovel refusal @ 8" due to gravel/cobbles

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>		<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Bloated Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 8

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): > 8

Wetland Hydrology Present? Yes _____ No

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

Remarks: Ave channel width = 2' Culvert under Hadar Rd (NE side) 8' width
Ave channel depth = 1' Wash 19-1^{alt} connected to wash 19-2

OHWM Indicators: Sh, SD, SS, SC

Substrate: 60% sand
30% gravel
10% cobbles

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-08
 Applicant/Owner: Circle Point State: CA Sampling Point: 19-2
 Investigator(s): CV, MB, MW Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W -117.169 Long: N 34.751 Datum: NAD 83
 Soil Map Unit Name: Cajon-Arizo Complex 2-15% Slopes NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology Y significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Flashy erosional feature, likely very infrequent flow during heavy rain events</u>	<u>DHWM 3' ft wide</u> <u>1 ft height</u> <u>4:1 bank slope</u> <u>Photos 031 E</u> <u>032 W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Nymphaecea salsola</u>	<u>1%</u>	<u>Y</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>1%</u>				UPL species <u>913</u> x 5 = <u>4565</u>
				Column Totals: <u>913</u> (A) <u>4565</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Stephanomeria pauciflora</u>	<u>1.5%</u>	<u>N</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>5%</u>	<u>Y</u>	<u>NL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Bromus madritensis</u>	<u>1.5%</u>	<u>N</u>	<u>NL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Amsinckia tessellata</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Cryptantha pterocarya</u>	<u>1.5%</u>	<u>N</u>	<u>NL</u>	
6. <u>Brassica tournefortii</u>	<u>0.1%</u>	<u>N</u>	<u>NL</u>	
7. <u>Chaenactis albomarginata</u>	<u>1.5%</u>	<u>N</u>	<u>NL</u>	
8. <u>Pectocarya heterophylla</u>	<u>1.5%</u>	<u>N</u>	<u>NL</u>	
<u>(P. heterocarpa)</u> Total Cover: <u>8%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>91%</u>	% Cover of Biotic Crust <u>0</u>			
Remarks:				

SOIL

Sampling Point: 19-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3"	2.5Y 6/2	100					EXGRS	
4-12"	10YR 5/4	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils ³ : <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Gravel/Cobbles
 Depth (inches): 12"

Hydric Soil Present? Yes No

Remarks: shovel refusal @ 12" , moisture @ 4"

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>None</u>
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>>12</u>
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>>12</u>

Wetland Hydrology Present? Yes No

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

Remarks: concrete box culvert, 3 x 8' width, dirt access rd/berm blocking rd

OHWM Indicators: Sh (weak)
 Substrate: sand, gravel, cobble

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-1-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 19-3
 Investigator(s): CV, MW, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): (C) Slope (%): _____
 Subregion (LRR): D Lat: W -117.171 Long: N 34.748 Datum: NAD 83
 Soil Map Unit Name: Mirage Joshua Complex 25% slopes NWI classification: NA zone 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Likely infrequent, short-duration flows during high rainfall events</u>	<u>DHWM 2 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 033 W facing</u> <u>034 E "</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>3%</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>3%</u>				UPL species <u>2829</u> x 5 = <u>140145</u>
				Column Totals: <u>29</u> (A) <u>140145</u> (B)
				<u>29</u> Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Schizanthus barbatus</u>	<u>5%</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Bromus madritolerans</u>	<u>3%</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Erodium cicutarium</u>	<u>15%</u>	<u>Y</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Chamaesyce albomarginata</u>	<u>15%</u>	<u>N</u>	<u>NL UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Brossica tournefortii</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	
6. <u>Amsoluckia futurmedea</u>	<u>15%</u>	<u>N</u>	<u>NL UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>20% threshold = 5%</u> Total Cover: <u>25%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>75</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>tortoise fence up to culvert</u>				

SOIL

Sampling Point: 19-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	2.5Y 4/3	100	ΣXGRS					

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: cobbles
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: should return @ 12"

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): <u>none</u>	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): <u>>12</u>	
Saturation Present? (includes capillary fringe)	Yes _____ No <u>X</u>	Depth (inches): <u>>12</u>	

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

Remarks: sc, st.

OHWM Indicators: SC, SH, SD, SS

Substrate: cobbles, gravel, sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Cisco Point State: CA Sampling Point: 22-2
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): _____
 Subregion (LRR): A Lat: W -117.171 Long: N 34.825 Datum: NAD 83 Zone 11
 Soil Map Unit Name: Cajon Gravelly Sand, 2-15% Slopes NWM classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Highly braided channels</u> <u>Data pt in main channel. OHWM</u> <u>undercutters are weak</u>	<u>OHWM 10 ft wide</u> <u>0.5 ft height</u> <u>2:1 bank slope</u> <u>Photos March 27-30</u> <u>037 Facing S</u> <u>038 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>No shrubs in channel</u>	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>4.5</u> x 5 = <u>22.5</u>
				Column Totals: <u>4.5</u> (A) <u>22.5</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>2</u>	<u>NL</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Crophyllum sp.</u>	<u>STI</u>	<u>NL</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Chaenactis fremontii</u>	<u>2</u>	<u>NL</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>4.5</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>96</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Unvegetated: <5% cover</u>				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 5/3	100					grs	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Silt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	

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

Remarks: Main channel is 10 feet wide; secondary channels are: 1 x 10 ft, 3 x 5 ft.

OHWM Indicators: S, SC, SS, SD

Substrate: sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/28/08
 Applicant/Owner: Cisco Point State: CA Sampling Point: 22-3
 Investigator(s): M. Widdowson, C. Voigt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): _____
 Subregion (LRR): D Lat: W -117.187964 Long: N 34.828558 Datum: NAD 83
 Soil Map Unit Name: Cayo, Gravelly Sand, 2 to 15% Slopes NWI classification: ///A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	<u>DHWM 4.5 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 11 March 27-30"</u> <u>039 Facing E</u> <u>040 Facing W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>12</u> x 5 = <u>80</u>
				Column Totals: <u>12</u> (A) <u>80</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum-				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>5%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Eschscholzia minutiflora</u>	<u>5%</u>	<u>N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>12</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: Unvegetated: <5% cover

Sampling Point: 22-3

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR5/3	100					gr sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 20

Saturation Present? Yes _____ No Depth (inches): > 20

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Railroad crosses wash on bridge 100' long

OHWM Indicators: cl, sh, pc, ss

Substrate: sand, gravel

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed *1809020081004*

HBG Watershed ID # 06

**Within Mojave Watershed
(HUC 18090208)**

DesertXpress

Field Notebook

HBG Watershed ID # 6

Watershed Name: 180902081004

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tone 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)		HUC 12 # 18080281004		Comments				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road		Photo (Y/N)	Below OHWM	At OHWM	Above OHWM
5-12-10	0536	1	6D1	C124	1.1 1.3	A	D	NO	A: 6, 12, 13 D: 10	B: 6, 12, 13 E: 18	C: F: 18	Drain off highway RTH field verified
5-12-10	0548	1	6MD2	C124	8.6 8.7	A	D	NO	A: 5, 6 D: 10	B: 10, 11, 12, 13, 6 E: 18	C: F: 18	highly eroded area on highway will slope
5-13-10	0852	2	6MD3	C124	6.7 6.8	A	D	NO	A: 5, 11 D: 10	B: 6, 11, 12, 13, 3 E: 18	C: F: 18	formerly M12 RTH field verified
12-21	1236	1 or 4	6MD4 *	1236	4.6 4.5 1.9 1.5	A	D	yes	A: 5, 11 D: 10	B: 6, 12, 13, 2, 9 E: 18	C: F: 18	formerly D1 NO ON ROUTE
12-36		1 or 4	6D5	1236	2.3 2.4	A	D	yes	A: 5 D: 10	B: 6, 11, 12, 13 E: 18	C: F: 18	formerly M54
12-54		1 or 4	6MD6	1216	1.7 1.6	A	D	yes	A: 1, 5, 6, 10, 11, 12, 13 D: 3	B: 2, 8, 10, 11, 12 E: 12	C: 3, 5, 8, 9, 10, 12 F: 15, 18	RTH field verified

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress						HUC 12 #	Comments			
								6	18090281004			
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
10-13-10		S	6D8		4.5-0.0 4.5-0.0 1.5 1.5	A	D	yes	A: 1, 5, 6, 10, 11, 12 13, 14, 18 D: 3	B: 2, 8, 10, 11, 12 E: 12	C: 3, 5, 8, 9, 10, 12 F: 15, 18	RTH REVERIFY
		10r4	6M1	123C	1.92 1.5	A	D	yes	A: 5, 11 D: 10	B: 6, 12, 13, 2, 9 E:	C: F: 18	RTH NOGPS
		10r4	6M2	123C	3.3	A	D	yes	A: 5, 11 D: 10	B: 6, 12, 13, 2, 9 E:	C: F: 18	NOGPS
		10r4	6M3	123C	2.5.0	A	D	yes	A: 2, 6 D: 10	B: 6, 11, 12, 13 E:	C: F: 18	NOGPS
		10r4	6M5	121C	2.2	A	D	yes	A: 5 D: 10	B: 6, 11, 12, 13 E:	C: F: 18	NOGPS
			6M9		2.70	A	U	yes	A: 5, 11 D: 10	B: 6, 12, 13, 2, 9 E:	C: F: 18	RTH REVERIFY
									A: D:	B: E:	C: F:	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 E:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
City of Barstow-Mojave River

HBG Watershed ID # 07

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 7

Watershed Name: City of Barstow - Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/texture 10) Drainage development 11) Surface relief 12) Surface rounding

F-1.6-295

Potential Vegetation OHWM Indicators

(D) Below OHW	(E) At OHW	(F) Above OHW
<p>Hydroriparian indicators</p> <ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Late-successional species
<p>Mesoriarian indicators</p> <ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
<p>Xeroriarian indicators</p> <ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

-BGM OHWM Field Data Sheet (Arid West)

CITY OF BARSTON - MOJAVE RIVER

IGB Team # B GILES		Project Name: DesertXpress		HBG Sub-Basin # (1-41) 7		HUC 12 # 1809D2081105		Comments				
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road		Photo (Y/N)	Below OHWM	At OHWM	Above OHWM
12-10	1107	2	7D1	C135	2.2 2.6	A	U	NO	A: 6 D: 10	B: 6, 12, 13 E:	C: F: 18	Demarcation from a JES point
12-10	1114	2	7MD2	C135	10.2 10.2	A	U	Yes	A: 1, 2, 3, 5, 6, 7, 9, 10 D: 10	B: 6, 10, 12, 13 E: 10	C: F: 18	could be a remap of a JES point.
12-10	1141	2	7M3	C130	11.4 11.5	A	D	Yes	A: 1, 5, 6, 9, 13 D: 10	B: 6, 10, 12, 13 E:	C: F: 18	P. 12 begins map - made channel parallel to boundary off map
12-10	0105	2	7D4	C131	1.8 2.2	A	D	NO	A: 6 D: 10	B: 6, 12, 13 E:	C: F: 18	
12-10	0113	2	7D5	C131	1.4 1.7	A	D	NO	A: 13 D: 10	B: 6, 12, 13 E:	C: F: 18	#1
12-10	0116	2	7D6	C131	2.1 2.5	A	D	NO	A: 13 D: 10	B: 6, 12, 13 E:	C: F: 18	#1
12-10	0144	2	7D7	C128	2.8 3.4	A	D	NO	A: 13 D: 10	B: 6, 14, 13 E:	C: F: 18	incised channel

H-BG OHWM Field Data Sheet (Arid West)

CITY OF BARSTOW - MOJAVE RIVER

IGB Team # *GD/ES*

Project Name: *DesertXpress*

HBG Sub-Basin # (1 - 41) *7*

HUC 12 # *180902081105*

Drainage Data											Comments	
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>1/12/10</i>	<i>0146 pm</i>	<i>2</i>	<i>TD8</i>	<i>C128</i>	<i>2.0 2.4</i>	<i>A</i>	<i>D</i>	<i>N</i>	<i>A: 5, 13 D: 10</i>	<i>B: 6, 7, 13 E:</i>	<i>C: F: 18</i>	<i>beyond fence. Drawing inside north of fence</i>
<i>1/12/10</i>	<i>0202 pm</i>	<i>2</i>	<i>TD9</i>	<i>C128</i>	<i>2.5 3.0</i>	<i>A</i>	<i>D</i>	<i>N</i>	<i>A: 3 D: 10</i>	<i>B: 6, 7, 13 E:</i>	<i>C: F: 18</i>	<i>in used channel concrete drainage structure - find hoopings drains to the hoopings + beyond</i>
<i>1/12/10</i>	<i>0207 pm</i>	<i>2</i>	<i>TD10</i>	<i>C127</i>	<i>0.8 1.0</i>	<i>A</i>	<i>D</i>	<i>N</i>	<i>A: 10, 12, 13 D: 10</i>	<i>B: 6, 7, 13 E:</i>	<i>C: F: 18</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	

Comment Number	Comment
1	<p>Referenced pile next to road covered upper reach of drainage. View to north commencing edge of fill and continuing to low Mat visible from highway. There are a number of these.</p>

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

HUC 12 Watershed
City of Barstow-Mojave River

HBG Watershed ID # 07

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 29-4
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Topslope Local relief (concave, convex, none): _____ Slope (%): 2
 Subregion (LRR): D town -116.95-92 long -116.926802 Datum: NAD 83
 Soil Map Unit Name: Rock Outcrop-lithic Terrorthents Complex 15-50% NWI classification: NH ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	OHWM <u>25</u> ft wide <u>1</u> ft height <u>3:1</u> bank slope Photos <u>0405</u> <u>041N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Acacia greggii</u>	<u>2%</u>	<u>Y</u>	<u>FACU</u>	OBL species _____ x 1 = _____
2. <u>Hymenoclea salsola</u>	<u>2%</u>	<u>Y</u>	<u>NL wpt</u>	FACW species _____ x 2 = _____
3. <u>Larrea tridentata</u>	<u>2%</u>	<u>Y</u>	<u>NL wpt</u>	FAC species _____ x 3 = _____
4. <u>Atriplex canescens</u>	<u>1%</u>	<u>NL</u>	<u>wpt</u>	FACU species <u>2</u> x 4 = <u>8</u>
5. <u>Sala zoria mexicana</u>	<u>1%</u>	<u>NL</u>	<u>NI</u>	UPL species <u>1518</u> x 5 = <u>7590</u>
Total Cover: <u>8%</u>				Column Totals: <u>1720</u> (A) <u>8398</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>4.8845</u>
1. <u>Bromus madritensis</u>	<u>3%</u>	<u>Y</u>	<u>NL wpt</u>	Hydrophytic Vegetation Indicators:
2. <u>Phacelia distans</u>	<u>2%</u>	<u>Y</u>	<u>NL wpt</u>	___ Dominance Test is >50%
3. <u>Brassica tournefortii</u>	<u>1-6%</u>	<u>NL</u>	<u>wpt</u>	___ Prevalence Index is ≤3.0 ¹
4. <u>Aeschynomene fessellata</u>	<u>1%</u>	<u>NL</u>	<u>wpt</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Bromus tectorum</u>	<u>1%</u>	<u>NL</u>	<u>wpt</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>Erodium cicutarium</u>	<u>2%</u>	<u>Y</u>	<u>NL wpt</u>	
7. <u>Chaenactis fremontii</u>	<u>1-2%</u>	<u>NL</u>	<u>wpt</u>	
8. <u>Gilia latiflora</u>	<u>1-2%</u>	<u>NL</u>	<u>wpt</u>	
Total Cover: <u>10%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>90</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

Sampling Point: 29-4

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5Y 4/3	100					VGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Moisture @ 4"

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|---|
| Primary Indicators (any one indicator is sufficient) | | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

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

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

Remarks:

OHWM Indicators: PC, Sd, Ss, Sc, Sh.
Substrate: Cobble, gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Circle K State: CA Sampling Point: 29-5
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Tree slope Local relief (concave, convex, none): (none) Slope (%): 2
 Subregion (LRR): D Town - 116, 947516 Long: N 34.9N, 009 Datum: NAD 83
 Soil Map Unit Name: Sparkhule Rock outcrop complex 15-50% Slopes NWI classification: N/A 20NCL1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks:	OHWM <u>15</u> ft wide <u>2</u> ft height <u>3:1</u> bank slope Photos 014 N 015 S	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>37</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>3%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Lycium gedrosioides</u>	<u>1%</u>	<u>N</u>	<u>NL</u> <u>N/I</u>	OBL species _____ x 1 = _____
3. <u>Lycium parryi</u>	<u>1%</u>	<u>N</u>	<u>NL</u> <u>N/I</u>	FACW species _____ x 2 = _____
4. <u>Larrea tridentata</u>	<u>2%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	FAC species _____ x 3 = _____
5. <u>Atropis hymenalyta</u>	<u>1%</u>	<u>N</u>	<u>NL</u> <u>N/I</u>	FACU species _____ x 4 = _____
Total Cover: <u>8%</u>				UPL species <u>713</u> x 5 = <u>3565</u>
				Column Totals: <u>713</u> (A) <u>3565</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Bromus madrotaensis</u>	<u>15%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	___ Dominance Test is >50%
2. <u>Chorizanthe rigida</u>	<u>25%</u>	<u>Y</u>	<u>NL</u> <u>N/I</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Prodon cicutaria</u>	<u>1%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Calosotoma brevipes</u>	<u>12%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Chorizanthe brevicornis</u>	<u>10%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
Total Cover: <u>2%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____	<u>5%</u>	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 29.5

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	2.5 Y 3/2	10d					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Shovel refusal @ 6", No moisture
due to bedrock

HYDROLOGY

- Wetland Hydrology Indicators:
- | | |
|--|---|
| <u>Primary Indicators (any one indicator is sufficient)</u> | <u>Secondary Indicators (2 or more required)</u> |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Biotic Crust (B12) | |
| <input type="checkbox"/> Aquatic Invertebrates (B13) | |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

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

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

Remarks:

OHWM Indicators: Sd, Ss, Sc, Sh
Substrate: gravel, cobbles, SAND, boulders

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Circle Point State: CA Sampling Point: 29-6
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Top slope Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): D Lat: W-116.943159 Long: N 34.905854 Datum: NAD 83
 Soil Map Unit Name: Spartan-Rock outcrop Complex 15-50% Slopes NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	DHWM <u>20</u> ft wide <u>1</u> ft height <u>3:1</u> bank slope
	Photos <u>009 S</u> <u>010 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>			<u>NL</u>	
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hymeloclea salsola</u>	<u>2%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Atriplex canescens</u>	<u>3%</u>	<u>Y</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>2%</u>	<u>Y</u>	<u>UPL</u>	FACW species _____ x 2 = _____
4. <u>Lycium andersonii</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	FAC species _____ x 3 = _____
Total Cover: <u>8%</u>			<u>NL</u>	FACU species <u>3</u> x 4 = <u>12</u>
Herb Stratum				UPL species <u>113</u> x 5 = <u>565</u>
1. <u>Phacelia distans</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	Column Totals: <u>116</u> (A) <u>565</u> (B)
2. <u>Erodium cicutarium</u>	<u>1%</u>	<u>Y</u>	<u>UPL</u>	Prevalence Index = B/A = <u>54.81</u>
3. <u>Brassica tournefortii</u>	<u>1%</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:
4. <u>Amaranthus tricolor</u>	<u>1%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
5. <u>Gilia latifolia</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
6. <u>Chaenactis fremontii</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. <u>Camissonia brevipes</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
8. <u>Salvia columbiana</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	
Total Cover: <u>8%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>97</u>	Total Cover: <u>0</u>	% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 29-6

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-20"</u>	<u>2.5 Y 4/3</u>	<u>100</u>					<u>FxGRS</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Moisture @ 4"

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

OHWM Indicators: Scl, Sc, Sh, Ss

Substrate: Gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Circle Point State: CA Sampling Point: 29-7
 Investigator(s): CU, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): toeslope/wall, floor Local relief (concave, convex, none): (C) Slope (%): 1
 Subregion (LRR): D lat: 34.941584 long: -116.905472 Datum: NAD 83
 Soil Map Unit Name: Sparkshole-Rock Outcrop Complex 15-50% slopes NWI classification: N/A 20NE11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	<u>DHWM 5 ft wide</u> <u>1 ft height</u> <u>3:1 bank slope</u> <u>Photos 007 N</u> <u>008 S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Lycium pauciflorum</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Lycium andersonii</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	OBL species _____ x 1 = _____
3. <u>Ambrosia dumosa</u>	<u>2%</u>	<u>Y</u>	<u>NL</u>	FACW species _____ x 2 = _____
4. <u>Larrea tridentata</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	FAC species _____ x 3 = _____
5. <u>Lepidium sycanense</u>	<u>2%</u>	<u>N</u>	<u>NL</u>	FACU species _____ x 4 = _____
Total Cover: <u>8%</u>				UPL species <u>8/4</u> x 5 = <u>40/20</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: <u>8/4</u> (A) <u>40/20</u> (B)
1. <u>Brassica tournefortii</u>	<u>1%</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Hordeum marinum</u>	<u>1%</u>	<u>N</u>	<u>NI</u>	Hydrophytic Vegetation Indicators:
3. <u>Bromus madritensis</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	___ Dominance Test is >50%
4. <u>Erodium cicutarium</u>	<u>1%</u>	<u>Y</u>	<u>NL</u>	___ Prevalence Index is ≤3.0 ¹
5. <u>Chenopodium carolinense</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. <u>Cryptantha heterophylla</u>	<u>1%</u>	<u>N</u>	<u>NI</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u>Ceratium ciliatum</u>	<u>1%</u>	<u>N</u>	<u>NI</u>	
8. <u>Lepidium lasiocarpum</u>	<u>1%</u>	<u>N</u>	<u>NI</u>	
Total Cover: <u>8%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>97</u>	% Cover of Biotic Crust <u>0</u>			
Remarks:				

Sampling Point: 29-7

SOIL

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	2.5 Y 4/3	100					EXGRS	
6-8"	10YR 5/0	100					GPSC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moisture @ 6"
 Shovel refusal @ 8" due to bedrock

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks:

OHWM Indicators: Sc, Sd, Ss, Sh

Substrate: gravel, cobble, sand

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Odessa Canyon

HBG Watershed ID # 08

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 8

Watershed Name: Odessa Canyon

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(E) At OHW	(F) Above OHW
<p>Hydroriparian indicators</p> <ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
<p>Mesoriiparian indicators</p> <ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriiparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriiparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriiparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
<p>Xeroriiparian indicators</p> <ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriiparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriiparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

ODESSA CANYON

1GB Team # *60165*

Project Name: *DesertXpress*

HBG Sub-Basin # (1-41) *8*

HUC 12 # *190902091202*

Drainage Data

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
<i>5-13-10</i>	<i>1021</i>	<i>2</i>	<i>801</i>	<i>C140</i>	<i>6.7</i>	<i>A</i>	<i>D</i>	<i>Yes</i>	<i>A: 6</i> <i>D: 10</i>	<i>B: 6, 12, 13, 3</i> <i>E:</i>	<i>C:</i> <i>F: 18</i>	
<i>5-13-10</i>	<i>1033</i>	<i>2</i>	<i>802</i>	<i>C140</i>	<i>2.7</i> <i>28"</i>	<i>A</i> <i>I</i>	<i>D</i>	<i>Yes</i>	<i>A:</i> <i>D:</i>	<i>B:</i> <i>E:</i>	<i>C:</i> <i>F:</i>	
<i>5-13-10</i>	<i>1051</i>	<i>2</i>	<i>803</i>	<i>C140</i>	<i>2.2</i> <i>21"</i>	<i>A</i> <i>I</i>	<i>D</i>	<i>No</i>	<i>A:</i> <i>D:</i>	<i>B:</i> <i>E:</i>	<i>C:</i> <i>F:</i>	
<i>5-13-10</i>	<i>1250</i>	<i>2</i>	<i>804</i>	<i>C137</i>	<i>1.8</i> <i>72"</i>	<i>A</i> <i>I</i>	<i>D</i>	<i>No</i>	<i>A:</i> <i>D: 10</i>	<i>B: 6, 11, 12, 13</i> <i>E:</i>	<i>C:</i> <i>F: 18</i>	
<i>5-13-10</i>	<i>1256</i>	<i>2</i>	<i>805</i>	<i>C137</i>	<i>1.0</i> <i>12"</i>	<i>A</i> <i>I</i>	<i>D</i>	<i>No</i>	<i>A:</i> <i>D:</i>	<i>B:</i> <i>E:</i>	<i>C:</i> <i>F:</i>	
<i>5-13-10</i>	<i>1113</i>	<i>2</i>	<i>806</i>	<i>C136</i>	<i>2.1</i> <i>25"</i>	<i>A</i>	<i>D</i>	<i>No</i>	<i>A:</i> <i>D: 10</i>	<i>B: 6, 11, 12, 13</i> <i>E:</i>	<i>C:</i> <i>F: 18</i>	
<i>5-13-10</i>	<i>1118</i>	<i>2</i>	<i>807</i>	<i>C136</i>	<i>1.3</i> <i>16"</i>	<i>A</i>	<i>D</i>	<i>No</i>	<i>A:</i> <i>D: 10</i>	<i>B: 6, 11, 12, 13</i> <i>E:</i>	<i>C:</i> <i>F: 18</i>	

HBG OHWM Field Data Sheet (Arid West)

ODESSA CANYON

HGB Team # 1367165		Project Name: DesertXpress		HBG Sub-Basin # (1-41)		HUC 12 # 180902081202		Comments				
Drainage Data												
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
12-17-10	0124	Z	8D8	C136	1.3 1.6	A	D	NO	A: D D: D	B: 6, 11, 12, 13 E:	C: F: 18	
12-13-10	0150	Z	8MD9	C135	3.4 7.5	A	D	NO	A: 5, 6, 13 D: 10	B: 6, 10, 11, 12, 13 E: 13	C: F: 18	
12-13-10	0159	Z	8MD10	C136	12.5 12.1	A	D	Yes	A: 1, 5, 4, 9 D: 10	B: 6, 10, 11, 12, 13 E:	C: F: 18	splits to 2 major next down stream
12-13-10	0223	Z	8MD11	C135	9'0"	A	D	NO	A: 5, 6, 9, 13 D: 10	B: 3, 6, 10, 11, 12, 13 E: 13	C: F: 18	
12-13-10	0240	Z	8D12	C132	2.5 2.6	A	D	NO	A: 5, 6, 13 D: 10	B: 6, 10, 11, 12, 13 E: 13	C: F: 18	observation point not on preferred route
12-11-10	1100	S	8D13		2.0	A	D	Y	A: 5, 10, 11, 12, 13 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	same as above NO ON ROUTE
12-11-10	1105	S	8D14		1.5	A	D	Y	A: 5, 10, 11, 12, 13 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	same NOT ON PREFERRED ROUTE

F-1.6-314

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

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HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HGB Sub-Basin # (1 - 41)		HUC 12 #		Comments		
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM
9.1.10	08:40	S	8D15		1.0	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	08:42	S	8D16		1.5	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	15:49	S	8D17		1.0	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	15:51	S	8D18		1.5	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	15:51	S	8D19		1.5	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	15:56	S	8D20		2.5	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE
9.1.10	15:58	S	8D21*		6.7	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as NOT ON 8D14 ROUTE RIT FIELD VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HGB Sub-Basin # (1-41)		HUC 12 #		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9.1.10	1343	S	8D22*		6.7 3.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as RTH FIELD VERIFIED 8D14
9.1.10	0905	S	8D23		1.9 2.5	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as RTH FIELD VERIFIED 8D14
9.1.10	0902	S	8MD24		2.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 8D14
9.1.10	0901	S	8D25		3.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 8D14
9.1.10	0856	S	8D26		1.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 8D14
9.1.10	0857	S	8D27		1.9 2.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as RTH FIELD VERIFIED 8D14
9.1.10	0858	S	8D28		0.4	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as RTH FIELD VERIFIED 8D14

Reference: D = Drainage; M = Manned; MD = Major Drainage; R = River

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HGB Sub-Basin # (1 - 41)			HUC 12 #			Comments
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
10.11.10	0855	S	8029		0.4 0.5	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as STA 8 D14 FIELD VERIFIED
10.11.10	0859	S	8030		1.9 1.8	A	D	Y	A: B: C: D: E: F:	B: E:	C: F:	Same Drainage Data as STA 8 D14 FIELD VERIFIED
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	
									A: B: C: D: E: F:	B: E:	C: F:	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Odessa Canyon***

HBG Watershed ID # 08

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle K State: CA Sampling Point: 29-1
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Tox Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: W -116.922086 Long: N 34.904931 Datum: NAD 83
 Soil Map Unit Name: Cajon Gravelly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	OHWM <u>20</u> ft wide <u>3</u> ft height 3:1 bank slope Photos 033 S 034 N

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>15</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
<u>NL</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hyaleucosia salicola</u>	<u>28%</u>	<u>Y</u>	<u>UPT</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Acacia greggii</u>	<u>18%</u>	<u>N</u>	<u>FACU</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>3%</u>				UPL species <u>2</u> x 5 = <u>10</u>
<u>NL</u>				Column Totals: <u>36</u> (A) <u>44.29</u> (B)
				Prevalence Index = B/A = <u>4.79.83</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Gilia latiflora</u>	<u>51%</u>	<u>Y</u>	<u>NL UPT</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>51%</u>	<u>N</u>	<u>UPT</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Camissonia hirsutipes</u>	<u>51%</u>	<u>N</u>	<u>UPT</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>51%</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: <u>3</u>				
% Bare Ground in Herb Stratum <u>99+</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5 Y 3/2	100					GRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F1B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: moisture @ 4"

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|---|
| Primary Indicators (any one indicator is sufficient) | | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input checked="" type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes X No ~~X~~

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

Remarks: Wash connects under F. Frwin Rd by 2 5' dia culverts

OHWM Indicators: sd, sh, ss, sc

Substrate: Gravel sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 29-2
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): D Lat: W -116.910553 Long: N 34.901898 Datum: NAD 83
 Soil Map Unit Name: Caljan Gravelly Sand 2-15% Shales NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>---</u>	
Remarks:	OHWM <u>20</u> ft wide <u>3</u> ft height <u>1:1</u> bank slope Photos <u>036S</u> <u>037N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Cercidium microphyllum</u>	<u>3%</u>	<u>Y</u>	<u>NL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>47</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>3%</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Baccharis sarothroides</u>	<u>2%</u>	<u>Y</u>	<u>Upt</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Cassia armata</u>	<u>1-19%</u>	<u>N</u>	<u>Upl</u>	OBL species _____ x 1 = _____
3. <u>Acacia greggii</u>	<u>5%</u>	<u>Y</u>	<u>FACU</u>	FACW species _____ x 2 = _____
4. <u>Larrea tridentata</u>	<u>1%</u>	<u>N/NL</u>	<u>Upt</u>	FAC species <u>2</u> x 3 = <u>6</u>
5. <u>Atriplex canescens</u>	<u>2-19%</u>	<u>N</u>	<u>FACU</u>	FACU species <u>6</u> x 4 = <u>24</u>
<u>Hymenoclea salsoda</u> <u>2%</u>	<u>10%</u>	<u>Y</u>	<u>NL</u>	UPL species <u>59</u> x 5 = <u>295</u>
Total Cover: <u>10%</u>				Column Totals: <u>117</u> (A) <u>4975</u> (B)
				Prevalence Index = B/A = <u>42.441</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Chaenactis fremontii</u>	<u>1-19%</u>	<u>N/NL</u>	<u>Upt</u>	___ Dominance Test is >50%
2. <u>Brassica fourcoides</u>	<u>1%</u>	<u>Y/NL</u>	<u>Upl</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Erodium cicutarium</u>	<u>1-19%</u>	<u>Y/NL</u>	<u>Upl</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Phacelia crenulata</u>	<u>1-19%</u>	<u>Y/N</u>	<u>Upl</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>1%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	<u>4%</u>	_____	_____	Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

Sampling Point: 29-2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	2.5Y 5/3	100					EXG.B5	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: moisture @ 4" | shovel material @ 12" due to gravel & cobbles

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks: 2 10' cement culverts and wooden bridge

OHWM Indicators: Sh, Sc, Ss, Sd, Pc

Substrate: sand, gravel, cobble

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 29.3
 Investigator(s): CU, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 2
 Subregion (LRR): D Lat: W -116.921791 Long: N 34.902462 Datum: NAD 83
 Soil Map Unit Name: Canyon Gravelly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	OHWM <u>8</u> ft wide <u>10</u> ft height <u>1:1</u> bank slope Photos <u>038E</u> <u>039W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>24</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Acacia greggii</u>	<u>1%</u>	<u>N</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>1%</u>	<u>N</u>	<u>NLUPL</u>	OBL species _____ x 1 = _____
3. <u>Atriplex polycarpa</u>	<u>3%</u>	<u>Y</u>	<u>FACU</u>	FACW species _____ x 2 = _____
4. <u>Atriplex canescens</u>	<u>4%</u>	<u>Y</u>	<u>FACU</u>	FAC species _____ x 3 = _____
5. _____				FACU species <u>48</u> x 4 = <u>1632</u>
Total Cover: <u>9%</u>				UPL species <u>53</u> x 5 = <u>2515</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: <u>911</u> (A) <u>4147</u> (B)
1. <u>Brassica tournefortii</u>	<u>25%</u>	<u>Y</u>	<u>NLUPL</u>	Prevalence Index = B/A = <u>4.6427</u>
2. <u>Stephanomeria pauciflora</u>	<u>2%</u>	<u>Y</u>	<u>NLUPL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>27%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ 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: _____				¹ Indicators of hydric soil and wetland hydrology must be present.
% Bare Ground in Herb Stratum <u>99+</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14"	2.5 Y 4/2						S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Moisture @ 6", shovel refusal @ 13" due to bedrock

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquilard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biolic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

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

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

Remarks:

OHWM Indicators: sc, sd, ss, sh
Substrate: cobble, gravel, sand, bedrock

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-08
 Applicant/Owner: Crescent Point State: CA Sampling Point: 29-8
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): D Lat: W -116.931294 Long: N 34.904855 Datum: NAD 83
 Soil Map Unit Name: Spartanuk-Rock Outcrop Complex 15-50% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	OHWM <u>20</u> ft wide <u>1</u> ft height <u>2:1</u> bank slope Photos <u>0055</u> <u>006 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Acacia greggii</u>	<u>15%</u>	<u>N</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia glabrescens</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. <u>Leavenworthia</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
4. <u>Lycium andersonii</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	FAC species _____ x 3 = _____
5. <u>Atriplex hymenelytra</u>	<u>1%</u>	<u>N</u>	<u>NL UPL</u>	FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>37.5%</u>				UPL species <u>49</u> x 5 = <u>245</u>
Herb Stratum				Column Totals: <u>510</u> (A) <u>2944</u> (B)
1. <u>Salvia californica</u>	<u>15%</u>	<u>N</u>	<u>UPL</u>	Prevalence Index = B/A = <u>4.8 4.4</u>
2. <u>Phacelia coccinea</u>	<u>15%</u>	<u>N</u>	<u>UPL</u>	
3. <u>Malacothrix coulteri</u>	<u>15%</u>	<u>N</u>	<u>NL NI</u>	
4. <u>Erodium cicutarium</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	
5. <u>Brassica tournefortii</u>	<u>15%</u>	<u>N</u>	<u>NL UPL</u>	
6. _____				
7. _____				
8. _____				
Total Cover: <u>2%</u> <u>5%</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>98</u>	% Cover of Biotic Crust <u>()</u>			___ Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks:				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	2.5Y 5/2	100					EX-RS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)
<input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Vernal Pools (F9) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Moisture @ 4" shovel refusal @ 8" due to bedrock

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1)
<input type="checkbox"/> High Water Table (A2)
<input type="checkbox"/> Saturation (A3)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)
<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)
<input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5) |
|--|

Field Observations:

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

Wetland Hydrology Present? Yes X No _____

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

Remarks:

OHWI Indicators: Ss, Sh, Sd, Sc
 Substrate: sand, gravel, bedrock

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-4-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 29-9
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): 0 Slope (%): 2
 Subregion (LRR): D lat. W = 116.927216 long. N 34.904471 Datum: NAD 83
 Soil Map Unit Name: Sparkhuk - Rock Outcrop Complex 15-50% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	<u>DHWM 20 ft wide</u> <u>21 ft height</u> <u>3:1 bank slope</u> <u>Photos 001 N</u> <u>002 S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Acacia greggii</u>	<u>19%</u>	<u>N</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>4%</u>	<u>Y/NL</u>	<u>WPL</u>	OBL species _____ x 1 = _____
3. <u>Lepidium fremontii</u>	<u>17%</u>	<u>N</u>	<u>NI</u>	FACW species _____ x 2 = _____
4. <u>Lycium andersonii</u>	<u>19%</u>	<u>NNL</u>	<u>NT</u>	FAC species _____ x 3 = _____
5. _____				FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>77%</u>				UPL species <u>6</u> x 5 = <u>30</u>
				Column Totals: <u>7</u> (A) <u>34</u> (B)
				Prevalence Index = B/A = <u>4.8</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Stephanomeria pauciflora</u>	<u><1%</u>	<u>N</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>1%</u>	<u>Y</u>	<u>WPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Comissura brevipes</u>	<u><1%</u>	<u>NNL</u>	<u>WPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Phacelia crenulata</u>	<u><1%</u>	<u>N</u>	<u>NI</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Chenopodium strictoides</u>	<u><1%</u>	<u>N</u>	<u>NI</u>	
6. <u>Chorizanthe brevicornis</u>	<u><1%</u>	<u>N</u>	<u>WPL</u>	
7. <u>Gutera latiflora</u>	<u><1%</u>	<u>NNL</u>	<u>WPL</u>	
8. <u>Alsucikia ferruginea</u>	<u><1%</u>	<u>NNL</u>	<u>WPL</u>	
Total Cover: <u>2%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-11"	2.5 Y 5/2	100				EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Shovel refusal @ 11"
Moisture @ 4"

HYDROLOGY

- Wetland Hydrology Indicators:
- | | |
|--|---|
| <u>Primary Indicators (any one indicator is sufficient)</u> | <u>Secondary Indicators (2 or more required)</u> |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Biotic Crust (B12) | |
| <input type="checkbox"/> Aquatic Invertebrates (B13) | |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? (Includes capillary fringe) Yes _____ No <u>X</u>	Depth (inches): _____	

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

Remarks:

OHWM Indicators: Sc, Sd, Ss, Sh
Substrate: SAND, Gravel, cobbles (few)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle K State: CA Sampling Point: 31-1
 Investigator(s): C.V., M.B. Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): D Lat: W -111.832335 Long: N 34.919915 Datum: NAD 83
 Soil Map Unit Name: Canyon Gravelly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Numerous small, shallow channels distributed over upper bajada</u>	<u>DHWM 10 ft wide 0.5 ft height 4:1 bank slope</u> <u>Photos 020 N 021 S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>16</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>			<u>NIL</u>	
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>LARREA TRIDENRATA</u>	<u>2%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Atriplex polycarpa</u>	<u><1%</u>	<u>NY</u>	<u>FACU</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>2%</u>				UPL species <u>2</u> x 5 = <u>10</u>
Herb Stratum				Column Totals: <u>3</u> (A) <u>14</u> (B)
1. <u>Chaenactis carphoclinia</u>	<u><1%</u>	<u>YN</u>	<u>NI</u>	Prevalence Index = B/A = <u>4.6</u>
2. <u>Chaenactis fremontii</u>	<u><1%</u>	<u>YN</u>	<u>UPL</u>	
3. <u>Chorizanthe brevicornu</u>	<u><1%</u>	<u>YN</u>	<u>UPL</u>	
4. <u>Plantago ovata</u>	<u><2%</u>	<u>YN</u>	<u>UPL</u>	
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>5%</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

Sampling Point: 31-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	2.5Y 5/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | | |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)
<input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Vernal Pools (F9) | Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|--|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Shovel refusal @ 10" due to gravel & cobble moisture @ 4"

HYDROLOGY

- | | | |
|---|---|--|
| Wetland Hydrology Indicators:
Primary Indicators (any one indicator is sufficient)
<input type="checkbox"/> Surface Water (A1)
<input type="checkbox"/> High Water Table (A2)
<input type="checkbox"/> Saturation (A3)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)
<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)
<input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Other (Explain in Remarks) | Secondary Indicators (2 or more required)
<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5) |
|---|---|--|

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

OHWM Indicators: Sh, Sd, Ss, Sc
Substrate: Cobble, gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 31-2
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 1
 Subregion (LRR): D Lat: 34.116838124 Long: -116.838124 Datum: NAD 83
 Soil Map Unit Name: Canyon Gravelly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Channel rerouted by raised dirt RP</u>	<u>DHWM 15 ft wide</u> <u>2 ft height</u> <u>2:1 bank slope</u> <u>Photos 024 S</u> <u>025 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>			<u>FACW</u>	
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Artemisia tridentata</u>	<u>14%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Larrea tridentata</u>	<u>14%</u>	<u>Y/NL</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>28%</u>				UPL species <u>29</u> x 5 = <u>145</u>
				Column Totals: <u>210</u> (A) <u>149</u> (B)
				Prevalence Index = B/A = <u>74.9</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Gerardia canescens</u>	<u>14%</u>	<u>N</u>	<u>NI</u>	___ Dominance Test is >50%
2. <u>Camissonia brevipes</u>	<u>14%</u>	<u>NNL</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Camissonia clabrotiana</u>	<u>14%</u>	<u>N</u>	<u>NI</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Plantago ovata</u>	<u>14%</u>	<u>NNL</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Chaenactis carphodictya</u>	<u>14%</u>	<u>N</u>	<u>NI</u>	
6. <u>Aeschynomene fessellata</u>	<u>14%</u>	<u>NNL</u>	<u>UPL</u>	
7. <u>Chaenactis fremontii</u>	<u>14%</u>	<u>NNL</u>	<u>UPL</u>	
8. <u>Chorizanthe rigida</u>	<u>14%</u>	<u>NNL</u>	<u>NI</u>	
Total Cover: <u>56%</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	2.5Y 5/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <ul style="list-style-type: none"> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) | <p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Moisture @ 5" , shovel retrieval @ 10" due to gravel cobble

HYDROLOGY

- | | | |
|--|---|---|
| <p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) | <ul style="list-style-type: none"> <input type="checkbox"/> Silt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks) | <p>Secondary Indicators (2 or more required)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) |
|--|---|---|

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

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

Remarks:
OHWM Indicators: Sc, Sd, Sh, Ss
Substrate: cobble, gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-3-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 31-3
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 1
 Subregion (LRR): D Lat: N 116.841585 Long: N 34.919342 Datum: NAD 83
 Soil Map Unit Name: Canyon Gravelly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>3</u> ft wide <u>2</u> ft height <u>4:1</u> bank slope Photos <u>026N</u> <u>027S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by:
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>4</u> x 5 = <u>20</u>
				Column Totals: <u>4</u> (A) <u>20</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Cercaria calycosels</u>	<u><1%</u>	<u>Y</u>	<u>NI</u>	___ Dominance Test is >50%
2. <u>Plantago ovata</u>	<u><1%</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Chorizanthe rigida</u>	<u><1%</u>	<u>Y</u>	<u>NI</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Brodium cicutarium</u>	<u><1%</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>4%</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	2.5 Y 5/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Vernal Pools (F9) | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Shovel refusal @ 6" due to gravel and cobble
Moisture-none

HYDROLOGY

- Wetland Hydrology Indicators:
- | | |
|--|---|
| Primary Indicators (any one indicator is sufficient) | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquifer (D3) |
| <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Blotic Crust (B12) | |
| <input type="checkbox"/> Aquatic Invertebrates (B13) | |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:

OHWM Indicators: Sc, Sh, Sd, Ss
Substrate: cobble, gravel, sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Bmt State: CA Sampling Point: 32-5
 Investigator(s): CY, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 2
 Subregion (LRR): D Lat: N -116.803398 Long: W 34.914773 Datum: NAD 83
 Soil Map Unit Name: Lima gravelly sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation H, Soil N, or Hydrology N 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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>32.5 leads into 32.3</u>	<u>OHWM 4 ft wide</u> <u>0.5 ft height</u> <u>4:1 bank slope</u> <u>Photos 004. NW</u> <u>005 S E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2.3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>KARREA TRIDENTATA</u>	<u>2%</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia dumosa</u>	<u>1-1%</u>	<u>Y/NL</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>2%</u>	<u>3%</u>			UPL species <u>610</u> x 5 = <u>3050</u>
				Column Totals: <u>1010</u> (A) <u>3050</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>CHENANTHIS PREMONTI</u>	<u>2%</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>SCISSUS BARBATUS</u>	<u>1%</u>	<u>N/NL</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Chorizanthe brevicornis</u>	<u>1-1%</u>	<u>Y</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Chorizanthe rigida</u>	<u>1-1%</u>	<u>NL</u>	<u>NI</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Plantago ovata</u>	<u>1-1%</u>	<u>NL</u>	<u>UPL</u>	
6. <u>Cryptantha angustifolia</u>	<u>1-1%</u>	<u>Y</u>	<u>NI</u>	
7. _____				
8. _____				
Total Cover: <u>4%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	<u>7%</u>			Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>96</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	2.5Y	4/3	100				EXGRS	

- ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks: Shovel refusal @ 12" due to gravel & cobble, moisture below 6"

HYDROLOGY

- Wetland Hydrology Indicators:
- Primary Indicators (any one indicator is sufficient)
- | | | |
|--|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Silt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

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

Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:
OHWM Indicators: Sh, Sc, Sd, Ss
Substrate: Cobble, gravel, SAND

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32.6
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hill slope Local relief (concave, convex, none): (none) Slope (%): 2
 Subregion (LRR): D 116.805945 N 34.915513 Datum: NAD 83
 Soil Map Unit Name: Cayan gravelly sand 2-15% slopes NWI classification: N/A 20NE11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>channel incised</u>	<u>OHWM 4 ft wide</u> <u>3 ft height</u> <u>1:1 bank slope</u> <u>Photos 006 S</u> <u>007 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (AB)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0%</u>				UPL species <u>14</u> x 5 = <u>70</u>
				Column Totals: <u>14</u> (A) <u>70</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Chaetochloa tremulifolia</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Chorizanthe boreocornu</u>	<u>14%</u>	<u>Y</u>	<u>NL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Plantago ovata</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Cakilepelta brevipes</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>14%</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 32-6

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5 Y 5/4						EXGPS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|---|---|---|
| <p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <ul style="list-style-type: none"> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) | <ul style="list-style-type: none"> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) |
|---|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) | <ul style="list-style-type: none"> <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks) |
|--|---|

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: Sc, Sd, Ss, Sh

Substrate: Cobble, gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-7
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): 3
 Subregion (LRR): D Lat: W-116, 4816331 Long: N 34, 915506 Datum: NAD 83
 Soil Map Unit Name: Calson brownelli, Sand 2-15% slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>channel incised</u>	<u>OHWM 4 ft wide</u> <u>3 ft height</u> <u>1:1 bank slope</u> Photos <u>008N</u> <u>009S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0%</u>				UPL species <u>13</u> x 5 = <u>15</u>
				Column Totals: <u>13</u> (A) <u>15</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Chorizanthe rigida</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Chaetochloa fremontii</u>	<u>1%</u>	<u>N</u>	<u>NL</u>	<input type="checkbox"/> Prevalence Index is $\leq 3.0^1$
3. <u>Chorizanthe brevicaulis</u>	<u>1%</u>	<u>N</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>5%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 32-7

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5 Y 4/4	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)
<input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Vernal Pools (F9) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- | | | |
|---|---|---|
| Wetland Hydrology Indicators:
Primary Indicators (any one indicator is sufficient)
<input type="checkbox"/> Surface Water (A1)
<input type="checkbox"/> High Water Table (A2)
<input type="checkbox"/> Saturation (A3)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)
<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)
<input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Other (Explain in Remarks) | Secondary Indicators (2 or more required)
<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5) |
|---|---|---|

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: Sc, Sd, Sh, Ss
 Substrate: Cobble, sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-B
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): D lat: N -116.907862 long: W 34.915779 Datum: NAD 83
 Soil Map Unit Name: Canyon Gravelly Sand 2-15 1/2 Slopes NWI classification: NA ZONE I
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>8</u> ft wide <u>2</u> ft height <u>1:1</u> bank slope Photos <u>0105</u> <u>011 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>26</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hydrocotyle salsola</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia dumosa</u>	<u>1%</u>	<u>YN</u>	<u>NL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>1%</u>	<u>YN</u>	<u>NL</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>29.3%</u>				UPL species <u>36</u> x 5 = <u>1830</u>
				Column Totals: <u>36</u> (A) <u>1830</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Lamissanta brevip</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Brassica tournefortii</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Chaenactis fremontii</u>	<u>14%</u>	<u>YN</u>	<u>NL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>41%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	2.5 Y 4/3						EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histc Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histc (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

moisture @ 6", shovel retrieval @ 12" due to gravel & cobble

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

OHWM Indicators: Sc, Ss, Sp, Sh

Substrate: Gravel, cobble, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-9
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): tree slope/Hillslope Local relief (concave, convex, none): none Slope (%): 3
 Subregion (LRR): D Lat: W 116.909074 Long: W 34.916094 Datum: NAD 83
 Soil Map Unit Name: Cajon Gravelly Sand, 2 to 15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>3</u> ft wide <u>6</u> ft height <u>1:1</u> bank slope
	Photos <u>012 N</u> <u>013 S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>4%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia deltoidea</u>	<u>2%</u>	<u>YNL</u>	<u>UPL</u> <u>NT</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>6%</u>				UPL species <u>225</u> x 5 = <u>1125</u>
				Column Totals: <u>225</u> (A) <u>1125</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>10%</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	___ Dominance Test is >50%
2. <u>Brassica tournefortii</u>	<u>5%</u>	<u>YNL</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Camissonia breviflora</u>	<u>1-1%</u>	<u>NNL</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Pectocarya platycarpa</u>	<u>1-1%</u>	<u>NL</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Schizanthus barbatus</u>	<u>1%</u>	<u>NL</u>	<u>UPL</u>	
6. <u>Chorizanthe brevicornis</u>	<u>1-1%</u>	<u>NL</u>	<u>UPL</u>	
7. <u>Chaenactis fremontii</u>	<u>1-1%</u>	<u>NL</u>	<u>UPL</u>	
8. <u>Malacothrix glabrata</u>	<u>1-1%</u>	<u>YNL</u>	<u>UPL</u>	
Total Cover: <u>17%</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
% Bare Ground in Herb Stratum <u>83</u>	Total Cover: <u>0</u>	% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 32-9

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13"	2.5Y 4/3	100					EXC-RS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|---|---|---|
| <p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <ul style="list-style-type: none"> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) | <ul style="list-style-type: none"> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) |
|---|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Shovel refusal @ 13" due to gravel & cobble, moisture @ 6"

HYDROLOGY

- | | | |
|---|---|---|
| <p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) | <ul style="list-style-type: none"> <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks) | <p>Secondary Indicators (2 or more required)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water Marks (B1) (Riverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquifer (D3) <input type="checkbox"/> FAC-Neutral Test (D5) |
|---|---|---|

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

OHWM Indicators: sh, sd, ss, sc
Substrate: cobble, gravel, sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle K State: CA Sampling Point: 32-10
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): the slope/Hillslope Local relief (concave, convex, none): (none) Slope (%): 2
 Subregion (LRR): D Est. W: -116.810285 Est. N: 34.916518 Datum: NAD 83
 Soil Map Unit Name: Nobona-Cuddleback Complex 2-9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	OHWM <u>3</u> ft wide <u>36</u> ft height 1:1 bank slope Photos 0145 015N

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>5%</u>	<u>Y</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Amelanchier alnifolia</u>	<u>5%</u>	<u>Y</u>	<u>NL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>10%</u>				UPL species <u>115%</u> x 5 = <u>575</u>
				Column Totals: <u>115%</u> (A) <u>575</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Brassica fourchortii</u>	<u>1%</u>	<u>Y</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>4%</u>	<u>Y</u>	<u>NL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Chorizanthe brevicornis</u>	<u>4%</u>	<u>N</u>	<u>NL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Phacelia crepularis</u>	<u>4%</u>	<u>N</u>	<u>NL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Plantago ovata</u>	<u>4%</u>	<u>N</u>	<u>NL</u>	
6. _____				
7. _____				
8. _____				
Total Cover: <u>16.5%</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

Sampling Point: 32-10

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	2.5Y 4/3	100					EXGRS	
8-12"	7.5YR 4/3	100					EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Shovel retrieval @ 12", moisture @ 6"

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		<input type="checkbox"/> Water Marks (B1) (Riverline)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverline)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverline)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

OHWM Indicators: sh, ss, sd, sc

Substrate: Cobble, sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

4-2-2008

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3-2-11
 Applicant/Owner: Circle Paint State: CA Sampling Point: 32-11
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 1
 Subregion (LRR): D Lat: W -116.813218 Long: N 34.917206 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: NRA ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>2</u> ft wide <u>1</u> ft height <u>2:1</u> bank slope Photos <u>016N</u> <u>017S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>25</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Larrea tridentata</u>	<u>3%</u>	<u>Y</u>	<u>NL</u>	OBL species _____ x 1 = _____
2. <u>Ambrosia deltoidea</u>	<u>2%</u>	<u>Y/NL</u>	<u>UPL</u>	FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species <u>48</u> x 5 = <u>360</u>
Total Cover: <u>5%</u>				Column Totals: <u>48</u> (A) <u>3040</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>
1. <u>Piantops ovata</u>	<u><1%</u>	<u>Y/N</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:
2. <u>Chenopodium fremontii</u>	<u>2%</u>	<u>Y/NL</u>	<u>UPL</u>	___ Dominance Test is >50%
3. <u>Chorizanthe breviflora</u>	<u><1%</u>	<u>Y/N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				
7. _____				
8. _____				
Total Cover: <u>5%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 32-11

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	2.5 Y / 4/3						EXGPS	
8-13"	7.5 Y 4/3						EXGPS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: moisture @ 6" [shovel refusal @ 13" due to gravel + cobbles.]

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

OHWM Indicators: Sh, Sc, Ss, Sd

Substrate: cobble, sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-12
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): 1
 Subregion (LRR): D Lat: W -116.813551 Long: N 34.911373 Datum: NAD 83
 Soil Map Unit Name: Water NWI classification: NA ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	OHWM <u>40</u> ft wide <u>1</u> ft height <u>4:1</u> bank slope Photos <u>018 E</u> <u>019 W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>I</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>75</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>TAMARIX ramosissima</u>	<u>3%</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Atriplex canescens</u>	<u>2%</u>	<u>Y</u>	<u>FACU</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species <u>3</u> x 3 = <u>9</u>
5. _____				FACU species <u>2</u> x 4 = <u>8</u>
Total Cover: <u>5%</u>				UPL species <u>13</u> x 5 = <u>65</u>
				Column Totals: <u>60</u> (A) <u>2932</u> (B)
				Prevalence Index = B/A = <u>3.640</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Hordeum muricatum</u>	<u>14%</u>	<u>YN</u>	<u>NI</u>	___ Dominance Test is >50%
2. <u>Amsinckia tessellata</u>	<u>14%</u>	<u>YN</u>	<u>NI</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Atriplex canescens</u>	<u>12%</u>	<u>YN</u>	<u>NI</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>21%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Sampling Point: 32-12

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	2.5 Y ⁴ /3	100					SicL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: W

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: subchannel within floodplain

OHWM Indicators: PC, SC

Substrate: silt

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed

Sunrise Canyon-Mojave River

HBG Watershed ID # 09

**Within Mojave Watershed
(HUC 18090208)**

DesertXpress

Field Notebook

HBG Watershed ID # 9

Watershed Name: Sunrise Canyon Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

(D) Below OHW	(E) At OHW	(F) Above OHW
<p>Hydroriparian indicators</p> <ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
<p>Mesoriarian indicators</p> <ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
<p>Xeroriparian indicators</p> <ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

SUNRISE CANYON - MOJAVE RIVER

IGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)				HUC 12 #		Comments		
Drainage Data												
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	
5-13-10	1300	4	9i1		-	I	U		A: D:	B: E:	C: F:	formerly 9BD1
5-13-10	1302	4	9M2		13.0 100"	A	U		A: D:	B: E:	C: F:	OFFSET 30' SOUTHEAST FROM POINT RTH FIELD VERIFIED
5-13-10	1304	4	9D3		0.5 6"	A	U	✓ upslope of dirt road	A: D:	B: E:	C: F:	
5-13-10	1306	4	9D4		0.7 9"	A	U		A: D:	B: E:	C: F:	
5-13-10	1308	4	9i5		-	I	U		A: D:	B: E:	C: F:	formerly 9BD1
5-13-10	1308	4	9MD6 9D6		3'	A	U	T2	A: D:	B: E:	C: F:	
5-13-10	1310	4	9i7		-	I	U		A: D:	B: E:	C: F:	up slope not altered - inactive drainage because it got bypassed naturally

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 E:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc
 i = inactive drainage

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HGB Sub-Basin # (1-41)		HUC 12 #		Comments				
Drainage Data												
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
10.13.10	1000	5-	* 9MS 8		13.0 1.4	A	D	Y	A: 1, 6, 5, 11, 12, 13 D: 12 3	B: 2, 10, 11, 12 8, 6 E: 12 18	C: 3, 5, 8, 9, 10 12 F: 18	RTH Field VGM Field
10.13.10	1100	5	929		0.7	A	D	Y	A: 5, 10, 11, 12, 13 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

Comment Number	Comment
	Also took data point for culvert under freeway.

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

HUC 12 Watershed
Sunrise Canyon-Mojave River

HBG Watershed ID # 09

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/21/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 32.1
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none) Slope (%): 3
 Subregion (LRR): D Lat/Lon = 116.786798 Long: N 34.916422 Datum: NAD 83
 Soil Map Unit Name: Canyon broadly Sand 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHW#1 W-6' h-6" 4-4-1 Photos: 126-S 127-N	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
				UPL species _____ x 5 = _____
Total Cover: <u>0</u>				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = <u>0</u>
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators:
1. _____				<input type="checkbox"/> Dominance Test is >50%
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
<u>Woody Vine Stratum</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____				

Sampling Point: 32-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 4/3						silty loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: <u>cobble</u></p> <p>Depth (inches): <u>6</u></p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

OHWM: confined, U, CSSD, 50, 361

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/21/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-2
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D Lat: W -116.769527 Long: N 34.914493 Datum: NAD 83
 Soil Map Unit Name: Cajon Sand 2-9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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.

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Hydrophytic Vegetation Present?</td> <td>Yes _____ No <input checked="" type="checkbox"/></td> </tr> <tr> <td>Hydric Soil Present?</td> <td>Yes _____ No <input checked="" type="checkbox"/></td> </tr> <tr> <td>Wetland Hydrology Present?</td> <td>Yes _____ No <input checked="" type="checkbox"/></td> </tr> </table>	Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>						
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>						
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>						
Remarks: OHWM W-4' (bladed, W-3' sheet flow) S-4:1 Photos - 119-5 120-N							

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>3</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>3</u>				UPL species <u>13</u> x 5 = <u>65</u>
				Column Totals: <u>13</u> (A) <u>65</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Brassica tournefortii</u>	<u>3</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Schismus barbatus</u>	<u>3</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Comissura brevis</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Gnaphalium bebbii</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Plantago ovata</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>10</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>90</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

SOIL

Sampling Point: 32-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 4/2						Loamy, silty	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: <u>rip-rap</u></p> <p>Depth (inches): <u>8</u></p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

OHWM I: PL, CS, dissected F-I-6-363

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 3/21/04
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-3
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): D ~~Lat: W-116,799384~~ Long: N 34,912734 Datum: NAD 83
 Soil Map Unit Name: Cajon Sand, 2-9% Slopes NWI classification: N/A Zone I
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OH/WV w - 6' (buried) Photos: 12d - N h - 5' 125 - S s - 4' 061 Alt date?	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
				UPL species _____ x 5 = _____
Total Cover: <u>0</u>				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = <u>0</u>
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Baccharis barbatus in drainage <1%.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 4/3						g bue 1	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: g cobble
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bernardino Sampling Date: 4-2-2008
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-4
 Investigator(s): CV, MB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley, Floor Local relief (concave, convex, none): (none) Slope (%): 1
 Subregion (LRR): D Lat: N -116.801421 Long: N. 34.91412 Datum: NAD 83
 Soil Map Unit Name: Calvin Gravelly Sand, 2-15% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly 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 showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>32-4 leads into 32-3</u>	<u>DHWM 6 ft wide</u> <u>0.5 ft height</u> <u>4:1 bank slope</u> <u>Photos 002 NW</u> <u>003 SE</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>LARREA TRIDENTATA</u>	<u>1%</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>AMBROSIA ALMOSEA</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>10.2%</u>				UPL species <u>2/8</u> x 5 = <u>10/40</u>
				Column Totals: <u>2/8</u> (A) <u>10/40</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>BRASSICA TORULIFOLIA</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>PERDISIA CACTARIUM</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>CHOENACTIS GRENONII</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>CRYPTANTHE ANGUSTIFOLIA</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>CHORIZANTHE BREVIS</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	
6. <u>PLANTAGO OVERTA</u>	<u><1%</u>	<u>N</u>	<u>NL UPL</u>	
7. _____				
8. _____				
Total Cover: <u>1%</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-12"	2.5 Y	4/3	100				EXGRS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)
<input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Vernal Pools (F9) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

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

Remarks: Shovel refusal @ 12" due to gravel & cobbles moisture below 6"

HYDROLOGY

- | | | |
|---|---|---|
| Wetland Hydrology Indicators:
Primary Indicators (any one indicator is sufficient)
<input type="checkbox"/> Surface Water (A1)
<input type="checkbox"/> High Water Table (A2)
<input type="checkbox"/> Saturation (A3)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)
<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)
<input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Other (Explain in Remarks) | Secondary Indicators (2 or more required)
<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-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 Depth (inches): _____
 Wetland Hydrology Present? Yes _____ No

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

Remarks:
 OHWM Indicators: Sh, Sc, Sd, Ss
 Substrate: cobbles, rock, sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/2/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 33-1
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): _____ Lat: W -116.745367 Long: N 34.923708 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation NO, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Off NW 1/4 - 2' (sheet flow) photos: 101-11</u> <u>102-5</u> <u>5-4:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>3</u> x 4 = <u>12</u>
Total Cover: <u>3</u>				UPL species <u>18/15</u> x 5 = <u>90/75</u>
				Column Totals: <u>18</u> (A) <u>90/75</u> (B)
				Prevalence Index = B/A = <u>5.0</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Schismus barbatus</u>	<u>8</u>	<u>Y</u>	<u>NL OBL</u>	___ Dominance Test is >50%
2. <u>Koeleria cristata</u>	<u>5</u>	<u>Y</u>	<u>NL OBL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Bryssia fourquetii</u>	<u>2</u>	<u>NL</u>	<u>OBL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>15</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>45</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

Sampling Point: 33-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10 YR 4/2						sand	
3-10	10 YR 4/3						loamy sand (dry)	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<p>Restrictive Layer (if present):</p> <p>Type: <u>rock</u></p> <p>Depth (inches): <u>10</u></p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

OHWR I: PC, CS, discrete confirmed

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/21/08
 Applicant/Owner: Creek Point State: CA Sampling Point: 33-2
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W -116.747696 Long: N 34.923249 Datum: NAD 83
 Soil Map Unit Name: Lagon Sand 2-9% slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM w-1' (sheet flow) photos: 103-5</u> <u>h-3"</u> <u>S-4:1</u> <u>104-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>4</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia dumosa</u>	<u>3</u>	<u>Y</u>	<u>NL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>4</u> x 4 = <u>16</u>
Total Cover: <u>7</u>				UPL species <u>85</u> x 5 = <u>425</u>
Herb Stratum				Column Totals: <u>9</u> (A) <u>4541</u> (B)
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>504.5</u>
2. <u>Syntherisma barbatus</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

SOIL

Sampling Point: 33-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10 PR 4/2						Sand	
4-10	11 PR 5/3						loamy sand	dry

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: ROCA
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: CS, PC, discreet F-I.6-371

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: D5x City/County: San Bernardino Sampling Date: 3/21/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 33-3
 Investigator(s): SH, JW, JD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D ~~Lat~~ W -116.749520 ~~Long~~ N 34 9.22852 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-90% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Road culvert from highway median</u> <u>okman</u> <u>W-18" culvert</u> <u>105-N</u> <u>Photos</u> <u>N-3" (sheet flow)</u> <u>106-5</u> <u>S-4:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>15</u>	<u>Y</u>	<u>FACW</u> <u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>15</u> x 4 = <u>60</u>
Total Cover: <u>15</u>				UPL species <u>22</u> x 5 = <u>110</u>
Herb Stratum				Column Totals: <u>22</u> (A) <u>110</u> (B)
1. <u>Schismus barbatus</u>	<u>4</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Prevalence Index = B/A = <u>5.431</u>
2. <u>Rhus fasciculata</u>	<u>3</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>7</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>93</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

SOIL

Sampling Point: 33-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10 YR 5/3						loamy sand	dry

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHM I: None

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: D5X City/County: San Bernardino Sampling Date: 3/21/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 33-4
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): LOWLY Slope (%): 2%
 Subregion (LRR): D Lat: W -116.752438 Long: W 34.922124 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Road runoff from freeway median</u> OHWM <u>W - 6" (18" culvert)</u> <u>H - 1" (sheet flow)</u> <u>S - 4:1</u> Photos - 107-5 08-N <u>Non-jurisdictional - no OHWM indicators.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>6</u>	<u>Y</u>	<u>FACU UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>6</u> x 4 = <u>24</u>
Total Cover: <u>6</u>				UPL species <u>126</u> x 5 = <u>630</u>
				Column Totals: <u>12</u> (A) <u>6054</u> (B)
				Prevalence Index = B/A = <u>54.5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>4</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Chenopodium fremontii</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0'
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>6</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0.4</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 4/2						loamy sand	dig

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rock
 Depth (inches): 12

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHMWI: None

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/21/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 33-6
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D Lat: W -116.75612 Long: N 34.92466 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: N/A ZONE 11
 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 _____, 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Road runoff</u>		OHWH W-2' (sheet flow) Photos: 110-11 h-3" 11-5 c-4" # 34-6 in photo	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
Total Cover: <u>0</u>	_____	_____	_____	
Sapling/Shrub Stratum				OBL species _____ x 1 = _____
1. <u>Tamarix canescens</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	FACW species <u>0</u> x 2 = <u>0</u>
2. _____	_____	_____	_____	FAC species <u>5</u> x 3 = <u>15</u>
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species <u>2</u> x 5 = <u>10</u>
5. _____	_____	_____	_____	Column Totals: <u>7</u> (A) <u>20.25</u> (B)
Total Cover: <u>5</u>	_____	_____	_____	Prevalence Index = B/A = <u>2.95357</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Brassica tournefortii</u>	<u>2</u>	<u>I</u>	<u>NL UPL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>	_____	_____	_____	
% Bare Ground in Herb Stratum <u>96</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 33-6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10 YR 4/2						loamy sand	dry

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

Restrictive Layer (if present):
 Type: rock
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHM... None
 Cal. ...

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Lake Jodie-Mojave River

HBG Watershed ID # 10

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 10

Watershed Name: Lake Todie - Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tone 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

LAKE JODIE-MOJAVE RIVER

1GB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)		HUC 12 # 180902081403		Comments				
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
04-30-10	1224	3	10M1	C-146	11'	A	U	Y	A: 5 D: 10	B: E: 12, 13	C: F:	Taken at culvert near S+S point. (CMI)*
04-30-10	1232	3	10MD2	C-146	15'	A	U	Y	A: D: 10	B: E: 12, 13	C: F:	(CD1)
04-30-10	1237	3	10D3	C-146	2'	A	U	N	A: D:	B: 8 E: 12	C: F:	(CD2)
04-30-10	1245	3	10D4	C-146	2'	A	U	N	A: D: 10	B: 2, 8 E: 12	C: F:	May be part of sheet flow. Active (CD3)
04-30-10	1258	3	10MD5	C-146	11'	A	U	Y	A: D: 10	B: 2, 8 E:	C: F:	(CD4)
04-30-10	1305	3	10MD6	C-146	11'	A	U	N	A: D: 10	B: 2, 8 E:	C: F:	(CD5)
04-30-10									A: D:	B: E:	C: F:	

* FORMER SAMPLE POINT NUMBERS IN (—).

HBG OHWM Field Data Sheet (Arid West)

Ps 1 of 1

HGB Team # **C** Date: **4-30-2010** Project Name: **Desert Xpress** HGB Sub-Basin # (140) **10** HUC 12# **10** **180902081403**

Sample Point #	Map Sheet Ref #	Drainage Info			Bed / Channel: Area Below OHWM						Area at OHWM Location			Additional Info
		OHW Width	Active (A)/ Inactive (I) Channel	Up (U)/ Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	
CD-1	G146	11'	A	U	✓	✓		✓				✓	E-12 E-13	Photo (Y/N) Taken @ Culvert near JTS point
CD-2	G146	15'	A	U	✓	✓		D-10				✓	E-12 E-13	Photo (Y/N)
CD-3	G146	24"	A	U	✓	✓			✓			✓	E-12 B-8	Photo (Y/N)
CD-4	G146	24"	A	U	✓	✓		D-10	✓			✓	B-2 B-8 E-12	Photo (Y/N) May be part of Street Flow, Active.
CD-5	G146	11'	A	U	✓	✓		P-10	✓			✓	B-2 B-8	Photo (Y/N)
CD-5	G146	11'	A	U	✓	✓		D-10	✓			✓	B-2 B-8	Photo (Y/N)

PREVIOUS (4-30-10) FIELD NOTES

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Lake Jodie-Mojave River***

HBG Watershed ID # 10

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: FSX City/County: San Bernardino Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 34-2
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W -116.726134 Long: N 34.927739 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWM w-3' (shallow) photos: h-3" 95-5 s-4:1 96-N	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>5</u> (A) <u>25</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cover: <u>0</u>				
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
2. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
3. <u>Comissonia boothii</u>	<u>1</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
4. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	% Bare Ground in Herb Stratum <u>95</u> % Cover of Biotic Crust <u>0</u>
Total Cover: <u>5</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Remarks:
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				

Sampling Point: 20.2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10 YR 4/2						Sand	
3-18	10 YR 4/3						Loamy Sand	slightly moist

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rock/gravel
 Depth (inches): 18

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <u>Primary Indicators (any one indicator is sufficient)</u> | | <u>Secondary Indicators (2 or more required)</u> |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

OH NM I: CS, PL

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/20/03
 Applicant/Owner: Circle Point State: CA Sampling Point: 34-3
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D ~~Lat~~ W -116.732336 ~~Long~~ N 34.926352 Datum: NAD 83
 Soil Map Unit Name: Nebona-Cuddeback Complex 2-9% Slopes NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Roadside ditch</u>	

OHWM | w-2' (sheet flow) | photos: 97-N
 h-3" | | 98-S
 s-4" |

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>6</u> x 5 = <u>30</u> Column Totals: <u>6</u> (A) <u>30</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
Herb Stratum				
1. <u>Erodium cicutarium</u>	<u>5</u>	<u>Y</u>	<u>NL UPE</u>	
2. <u>R. ramosissimum</u>	<u>1</u>	<u>N</u>	<u>NL UPE</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>6</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>94</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks:

SOIL

Sampling Point: 34-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 7/2						sand	
6-12	10 YR 4/3						loamy sand	slightly moist

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: <u>rock</u></p> <p>Depth (inches): <u>12</u></p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
--	---

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
---	---

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
---	---

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

Remarks:

0, HWM, S: CS, PC, SD, discoloration

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/20/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 34-4
 Investigator(s): JH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W-116.732822 Long: N 34.926253 Datum: NAD 83
 Soil Map Unit Name: Nobona-Liddleback Complex 2-9% Slopes NWI classification: N/A ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OFF HWK N - 2' (shot flow) Photos: 99-5 W - 3' 100-0 S - 4:1	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>2</u> x 4 = <u>8</u> UPL species <u>86</u> x 5 = <u>430</u> Column Totals: <u>8</u> (A) <u>40</u> (B) Prevalence Index = B/A = <u>5</u>	
Sapling/Shrub Stratum	1. <u>Atriplex canescens</u>	<u>2</u>	<u>Y</u>		<u>FACU</u>
2. _____	_____	_____	_____		_____
3. _____	_____	_____	_____		_____
4. _____	_____	_____	_____		_____
Total Cover: <u>2</u>					
Herb Stratum	1. <u>Erodium cicutarium</u>	<u>3</u>	<u>Y</u>	<u>NL</u>	
2. <u>Bassia formicaria</u>	<u>3</u>	<u>Y</u>	<u>NL</u>	<u>UPL</u>	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
Total Cover: <u>6</u>					
Woody Vine Stratum	1. _____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>				
Remarks:				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	

Sampling Point: 344

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 4/2						sand	
6-12	10 YR 4/3						loamy sand	slightly moist

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: rock/cobble
 Depth (inches): 12

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: CS, RC, direct/corfield F1.6-391

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Dolores Lake

HBG Watershed ID # 11

Within Coyote-Cuddeback Lakes Watershed
(HUC 18090207)

DesertXpress

Field Notebook

HBG Watershed ID # 11

Watershed Name: Dolores Lake

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/ton 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understorey 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

DOLORES LAKE

1GB Team # TH/TL		Project Name: DesertXpress		Drainage Data				HBG Sub-Basin # (1-41) 11		HUC 12 #		Comments
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
05-13	1110	4	113D1						A:	B:	C:	
									D:	E:	F:	
							Flat	Y6 (culverts) looking north	A:	B:	C:	Double culvert. No evidence of flow. Berns along access road show
									D:	E:	F:	No evidence of overtopping. No flow debris
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Manix Wash

HBG Watershed ID # 12

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 12

Watershed Name: Manix Wash

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

MAXIX WASH

ICB Team #

Project Name: DesertXpress

HBG Sub-Basin # (1-41) 12

HUC 12 # 18090208 1404

Drainage Data

Comments

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
05-15-10	1458	3	12D6	C171	0.5 6"	A	D	N	A: 16 D: 10	B: 6, 11 E: 12	C: 12, 11 F: 16, 18	FORMERLY TCE 6-1 and 16D10 RP/RE
Team: GDI/GH												
04-30-10	1256	1	12M7		14" 1.7	A		Y	A: 2 D: 10	B: 12 E: 12	C: 12 F: 12	RPA UNIFIED AREAS FORMERLY M6
04-30-10	1251	1	12I8		-	I		No	A: 2 D: 10	B: 12 E: 12	C: 12 F: 12	No flow FORMERLY D20 NO FLOW
04-30-10	1306	1	12D9		1.2 14"	A		Y	A: 2 D: 10	B: 12 E: 12	C: 12 F: 12	FORMERLY D20 Sandy soils
04-30-10	1307	1	12M10		2.9 21"	A		Y	A: 2 D: 10	B: 12 E: 12	C: 12 F: 12	FORMERLY M7

F-16-403

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

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HGB OHWM Field Data Sheet (Arid West)

HGB Team # TH/TL

Project Name: DesertXpress

HGB Sub-Basin # (1 - 41) 12

~~MANIX~~ MANIX WAST1

HUC 12 # 180902081464

Drainage Data										Comments		
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
05-13-10	1035	4	12BD1		-	I	U	Y ⁴	A: D:	B: E:	C: F:	Fan relatively flat, $\geq 3\%$ slope
05-13-10	1040	4	12BD2		-	I	U	N	A: D:	B: E:	C: F:	Fan relatively flat, $\geq 3\%$ slope
05-13-10	1040	4	12BD3		-	I	U	N	A: D:	B: E:	C: F:	Fan relatively flat, $\geq 3\%$ slope
05-13-10	1050	4	12BD4		-	I	U ^{flat}	Y ²	A: D:	B: E:	C: F:	Road blocking drainage (road outside fence)
05-13-10	1050	4	12BD5		-	I	U ^{flat}	N	A: D:	B: E:	C: F:	Road outside fence blocking drainage
9-1-10		5	12D11		1.0	A	D	Y	A: D:	B: E:	C: F:	
9-1-10		5	12D12*		1.7 1.0	A	D	Y	A: D:	B: E:	C: F:	SAME Drainage Data as 12D11 VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 F:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc
 P.D = BLOCKED DRAINAGE

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HBG Sub-Basin # (1 - 41)		HUC 12 #		Comments		
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM
9.1.10		S	ND13*		1.7 1.0	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED
9.1.10		S	ND14*		1.7 2.0	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED
9.1.10		S	ND15*		1.7 1.0	A	D	Y	A:	B:	C:	Same Drainage as 12 D 11 FIELD VERIFIED
9.1.10		S	ND16*		1.7 2.0	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED
9.1.10		S	ND17*		1.7 2.0	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED
9.1.10		S	ND18*		1.7 1.5	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED
9.1.10		S	ND19*		1.7 2.0	A	D	Y	A:	B:	C:	Same Drainage Data as RTH 12 D 11 FIELD VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: <i>DesertXpress</i>							HGB Sub-Basin # (1 - 41)	HUC 12 #	Comments	
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>2.11.10</i>		<i>S</i>	<i>MD20*</i>		<i>1.7 1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

Page 1 of 1

IGB Team # B-6964 Date: 4-30-10 Project Name: Desert Xpress HBG Sub-Basin # (1-40) 211-Marilyn Wash HUC 124 180402081404

Drainage Info			Bed / Channel Area Below OHWM						Area at OHWM Location			Additional Info			
Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) / Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Comment/ Photo (Y / N)
M-6	150	14"	A			✓	✓		A-2 D-10				✓		Photo (Y/N)
7-LD	153	14"	A			✓	✓		A-2 D-10				✓		Photo (Y/N)
M-7	155	2'11"	A			✓	✓		A-2 D-10				✓		Photo (Y/N) <i>Sandy soils</i>
D	150		I												Photo (Y/N) <i>no flow</i>
															Photo (Y/N)
															Photo (Y/N)

4-30-10 FIELD NOTES - NOW RENUMBERED + ENTERED IN FIELD NOTEBOOK

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

HUC 12 Watershed
Manix Wash

HBG Watershed ID # 12

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OSX City/County: San Bernardino Sampling Date: 3/20/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 37A
 Investigator(s): SU, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 5%
 Subregion (LRR): D Lat: W -116.565410 Long: N 34.975581 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Roadside ditch</u>	
OHW <u>W - 2'</u> <u>N - 3"</u> <u>S - 4'</u>	Photos: <u>91-5</u> <u>92-E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>			<u>NL</u>	
Sapling/Shrub Stratum				
1. <u>Amorpha dumosa</u>	<u>2</u>	<u>Y</u>	<u>UPE</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>1716</u> x 5 = <u>8580</u> Column Totals: <u>8584</u> (A) <u>8584</u> (B) Prevalence Index = B/A = <u>84.94</u>
2. <u>Prosopis juliflora</u>	<u>1</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>3</u>			<u>NI</u>	
Herb Stratum				
1. <u>Hordeum marinum</u>	<u>2</u>	<u>N</u>	<u>UPE</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Erodium cicutarium</u>	<u>2</u>	<u>N</u>	<u>NL</u>	
3. <u>Brassica tournefortii</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
4. <u>Brassica napus</u>	<u>5</u>	<u>Y</u>	<u>NI</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>14</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>96</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

Sampling Point: 37-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10 YR 4/2						sand	
3-18	10 YR 5/3						loamy sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S8) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHW M I: P.C.C.C.L

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DEV City/County: San Bernardino Sampling Date: 3/20/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 37.2
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: 34.569009 Long: 117.996982 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Road side ditch</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>0</u>
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
Herb Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No

Remarks: No vegetation

SOIL

Sampling Point: 37-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-15	2.5 Y 5/2						crha	
1.5-9	5 Y 5/2						loamy sand	slightly moist; bedrock depress
9-12	5 Y 5/3						crha	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)		
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)				

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)	
Primary Indicators (any one indicator is sufficient)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)		
<input type="checkbox"/> Inundation Visible on Aerial imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Water-Stained Leaves (B9)			

Field Observations:

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

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

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

(includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks:

F-1.6-412

APPROXIMATE: LL, CS, SD, SS, PC, CONTINUE

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/20/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 32-3
 Investigator(s): SH, SW, AS Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: W-116.578336 Long: N 34.992985 Datum: NAD 83
 Soil Map Unit Name: Canyon Sand 2-9% Slopes NWI classification: N/A ZONE 11
 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 _____, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>			
Remarks: <table style="float: right; margin-left: 20px;"> <tr> <td style="border: 1px solid black; padding: 2px;">OH notes:</td> <td style="border: 1px solid black; padding: 2px;">w - 8' A - 12' S - 4'</td> <td style="border: 1px solid black; padding: 2px;">Photos: 89-5 90-N</td> </tr> </table>		OH notes:	w - 8' A - 12' S - 4'	Photos: 89-5 90-N
OH notes:	w - 8' A - 12' S - 4'	Photos: 89-5 90-N		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>0</u>
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
Herb Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10 YR 4/2						So-nd acid g. 1/2"	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Bedrock
 Depth (inches): 4

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/20/88
 Applicant/Owner: Circle Point State: CA Sampling Point: 38-1
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): 7%
 Subregion (LRR): D Lat: W - 116.544473 Long: N 35.0005163 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE U
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Roadside ditch</u>	

Ø HWY | WJ - 2' | Photos: 77-5
 W - 3" | | 78-E
 S - 4" |

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>3</u>	<u>Y</u>	<u>FACW UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Tamarix ramosissima</u>	<u>2</u>	<u>Y</u>	<u>FAC FACW</u>	OBL species _____ x 1 = _____
3. _____				FACW species <u>2</u> x 2 = <u>4</u>
4. _____				FAC species <u>2</u> x 3 = <u>6</u>
5. _____				FACW species <u>3</u> x 4 = <u>12</u>
Total Cover: <u>5</u>				UPL species <u>76</u> x 5 = <u>4530</u>
				Column Totals: <u>11</u> (A) <u>4948</u> (B)
				Prevalence Index = B/A = <u>445.436</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	_____ Dominance Test is >50%
2. <u>Brassica nigra</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	_____ Prevalence Index is ≤3.0 ¹
3. <u>Mataraphis glabrata</u>	<u>1</u>	<u>N</u>	<u>NIL UPL</u>	_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				_____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>6</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>94</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

Sampling Point: 38-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10 YR 4/5						Sand	
5-19.1	10 YR 5/3						Loamy sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Secondary Indicators (2 or more required)

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

HWAT: CS, PL, discolor/cont'd

WETLAND DETERMINATION DATA FORM – Arid West Region

Subject/Site: PSX City/County: San Bernardino Sampling Date: 3/20/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 382
 Investigator(s): JH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Tab W-116: S47541 Long: N 35.00534D Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Roadside data</u>	
Offsets: <u>W-21</u> <u>-6"</u> <u>S-4.1</u>	Photos: <u>079 E</u> <u>080 S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				
1. <u>Tamalia foeniculifera</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species: _____ x1 = _____ FACW species: <u>2</u> x2 = <u>2</u> FAC species: <u>2</u> x3 = <u>6</u> FACU species: <u>1</u> x4 = <u>4</u> UPL species: <u>1.5</u> x5 = <u>30.25</u> Column Totals: <u>8</u> (A) <u>34.35</u> (B) Prevalence Index = B/A = <u>4.25 4.37</u>
2. <u>R. triplex canescens</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	
3. _____				
4. _____				
5. _____				
Total Cover: <u>3</u>				
Herb Stratum				
1. <u>Erodium cicutarium</u>	<u>3</u>	<u>Y</u>	<u>NL</u>	
2. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>5</u>				
Woody Vine Stratum				
1. _____				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>95</u> % Cover of Biotic Crust <u>0</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Remarks:				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

Sampling Point: 24-2

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-3	10 YR 4/2						sand	
3-10	10 YR 5/3						loamy sand	slightly moist

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: bedrock
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

O Hum I: CL, CS, PL, discreet/cont. not

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Wilhelm Wash-Mojave River

HBG Watershed ID # 13

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 13

Watershed Name: Wilhelm Wash - Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tone 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriarian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriarian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

WILHELM WASH - MODAKE RIVER

IBG Team # THJL

Project Name: DesertXpress

HGB Sub-Basin # (1-41) 13

HUC 12 # 180902082201

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Drainage Data			Comments
									Below OHWM	At OHWM	Above OHWM	
5-11-15	1612	4	13M1J		-	I	U	Y	A:	B:	C: 12	Use note pages at back of notebook for comments. Put comment number in block below. NO OHWM but area 20 feet wide. Between west stop & fence.
	1615	4	1311 1312		-	I	U	Y	A:	B:	C:	NO OHWM. 2' wide. Behind west stop (13D1)
	1620	4	1312		-	I	U	Y	A:	B:	C:	toroise fence (13D2)
	1622	4	1313		-	I	U		A:	B:	C:	toroise fence (13D3)
	1623	4	1314		-	I	U		A:	B:	C:	toroise fence (13D4)
	1636	4	13D5*		0.6	A	U		A:	B:	C:	drains to manmade drainage parallel to freeway
	1639	4	13D6*		7"	A	U		A:	B:	C:	Actual drainage bed w/ 12' FATH FIELD CHECK

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 F:\DesertXpress\DesertXpress Drainage Field Data Sheet (Final).doc
 Former sample point numbers in (---).

1BG OHWM Field Data Sheet (Arid West)

WILHELM WASH - MARIJAVE RIVER

HUC 12 # 18090208 2201

HBG Sub-Basin # (1-41) 13

Project Name: DesertXpress

GB Team #

Drainage Data

Comments

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/1/10	1645	4	13MD7		4.6 4'7"	A	U	Y	A: 5, 6, 15 D: 10	B: 6, 13 E: 12	C: F: 18	Draws into manmade channel ↑
	1650	4	13D8		0.9	A	U		A: 5 D: none	B: 6, 13 E: 11	C: F: 18	Draws into same manmade channel from pavement side
	1655	4	13D9		NO GPS POINT	A	U		A: 6, 5 D: 10	B: 6, 13 E: 12	C: F: 18	NO GPS POINT
	1700	4	13D10		0.6 7"	A	U		A: 5, 12 D: 10	B: 6, 13 E: 12	C: F: 8	
	1708	4	13M11	*	1.4 4'8"	A	U		A: 5, 6, 15 D: 10	B: 6, 13 E: 12	C: F: 18	RTH FIELD VERIFIED
	1725	4	13D12		0.5 6"	A	U		A: 12, 18 D: 10, 12	B: 3, 12, 13 E: 12, 14	C: F: 16, 18	Rounding. Dings comes up to fence & diffuses
	1800	4	13M13		1.8 1'9"	A	U		A: 5, 6, 15 D: 10, 12	B: 6, 13 E: 12	C: F: 18	RTH FIELD VERIFIED

reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 10-120

IBG OHWM Field Data Sheet (Arid West)

WILHELM WASH-MOJAVE RIVER

IGB Team #		Project Name: DesertXpress		Drainage Data					HUC 12 # 180902082201		Comments	
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM		Above OHWM
5-11-10	1801	4	13D14		0.3 4"	A	U		A: 5, 11, 12, 18 D: 12, 12	B: 6, 12 E: 12, 14	C: F:	Use note pages at back of notebook for comments. Put comment number in block below.
5-11-10	1804	4	13D15		0.4 5"	A	U		A: 5, 11, 12, 18 D: 10, 12	B: 6, 12 E: 12, 14	C: F:	Graded upslope head channeling outside fence for power line.
9-1-10		5	* 13D16		1.4 1.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
Wild		5	13D17		1.5	A	U	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 12	C: 5, 10, 11, 12 F: 18	
9-1-10		5	* 13D18		1.4 1.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
9-1-10		5	* 13D19		1.4 1.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
9-1-10		5	* 13D20		1.4 2.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 :\\DesertXpress\DesertXpress\Drainage Field Data Sheet (Final).doc

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HUC 12 #		HGB Sub-Basin # (1-41)		HUC 12 #		Comments		
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM
9.1.10		S	13D21*		1.4 2.0	A	D	Y	A:	B:	C:	Use note pages at back of notebook for comments. Put comment number in block below. SAME DRAINAGE DATA AS 13D20 / RTH FIELD VERIFIED
9.1.10		S	13D22*		1.1 1.5	A	D	Y	A:	B:	C:	SAME DRAINAGE DATA AS 13D20 / RTH FIELD VERIFIED
9.1.10		S	13D23*		1.0 1.1	A	D	Y	A:	B:	C:	SAME DRAINAGE DATA AS 13D20 / RTH FIELD VERIFIED
9.1.20		S	13D24*		1.1 1.0	A	D	Y	A:	B:	C:	SAME DRAINAGE DATA AS 13D20 / RTH FIELD VERIFIED
9.1.20		S	13D25*		1.1 1.0	A	D	Y	A:	B:	C:	SAME DRAINAGE DATA AS 13D20 / RTH FIELD VERIFIED
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 G:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc
 F-1.6-427 *

HBG OHWM Field Data Sheet (Arid West)

WILHELM WAST - MGSIVE RIVER

IGB Team #		Project Name: DesertXpress		Drainage Data							HUC 12 # (8090208-2201)		Comments
HBG Sub-Basin # (1-41) 13		Map Sheet Ref #		Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM				
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	OHWM Width									
04-30-10	1222	1024	D19	30" / 2.5'	A	Y	A: 2, 11 D:	B: 6 E:	C: F:	Use note pages at back of notebook for comments. Put comment number in block below.		Debris @ fence 100' fr. M4 point	
04-30-10	1224	1024	M4A	18" / 1.5'	A	Y	A: 2, 8 D:	B: E:	C: F:			Culvert sandy soils	
04-30-10	1231	-	M4	25'	A		A: 2 D:	B: E:	C: F:			Debris @ fence Next to culvert	
04-30-10	1239	-	M20				A: D:	B: E:	C: F:			NO DATA	
04-30-10	-	-	MD4	35'4"	A	Y	A: 2 D:	B: E:	C: F:			NGPS	
04-30-10	-	-	M5	7"	A	Y	A: 2 D:	B: E:	C: F:			NGPS	
							A: D:	B: E:	C: F:				

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 3: DesertXpress/DesertXpress/Drainage Field Data Sheet (08-01-10).doc

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

HUC 12 Watershed
Wilhelm Wash-Mojave River

HBG Watershed ID # 13

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DKZ City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Carroll Partners State: CA Sampling Point: 29-1
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: W -116.475035 Long: N 35.031533 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: NA ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology → significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: OHW!! w-3' h-6' s-4.1 photos: 67-w 68-s			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Cercidium floridum</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	<u>NL</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>6</u>				UPL species <u>6</u> x 5 = <u>30</u>
Herb Stratum				Column Totals: <u>6</u> (A) <u>30</u> (B)
1. _____	_____	_____	_____	Prevalence Index = B/A = <u>5</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Total Cover: <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust <u>0</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Remarks: _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Sampling Point: 39-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>2</u>	<u>10 yr 5/3</u>						<u>gravelly cobble</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: cobble
 Depth (inches): 2

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Other: I: CL, CS, PC, disFRA 431/ conf. ed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Day City/County: San Bernardino Sampling Date: 3/19/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 39-4
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 9%
 Subregion (LRR): D Lat: W -116.487014 Long: N 35.027340 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 20NE11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (if no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: O 1/4" W-5' h-3' S-4:1 Photos: 71-5 72-N	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>80</u> x 5 = <u>350</u> Column Totals: <u>5</u> (A) <u>350</u> (B) Prevalence Index = B/A = <u>84.4</u>
Sapling/Shrub Stratum				
1. <u>Artemisia canescens</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>3</u>				
Herb Stratum				
1. <u>Malarathrix glabrata</u>	<u>1</u>	<u>Y</u>	<u>JPE</u>	
2. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y</u>	<u>JPE</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks: _____

Sampling Point: 39-4

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18+	10 YR 5/3						sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <table border="0"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Salt Crust (B11)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Biotic Crust (B12)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Aquatic Invertebrates (B13)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1) (Nonriverine)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</td> <td><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> <td><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9)		<p>Secondary Indicators (2 or more required)</p> <table border="0"> <tr> <td><input type="checkbox"/> Water Marks (B1) (Riverine)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3) (Riverine)</td> </tr> <tr> <td><input type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> </table>	<input type="checkbox"/> Water Marks (B1) (Riverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)																												
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<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)																												
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)																												
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<input type="checkbox"/> Water Marks (B1) (Riverine)																													
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)																													
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<input type="checkbox"/> Shallow Aquitard (D3)																													
<input type="checkbox"/> FAC-Neutral Test (D5)																													
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>																												

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

Remarks:

OHWM I: CHLS, RC, on line F-16433

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DFX City/County: San Bernardino Sampling Date: 3/19/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 39-5
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: W 116.493540 Long: W 35.024842 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Off W/M W-25' (braided) Photos: N-12" 73-N S-4:1 74-5 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>12</u> x 5 = <u>60</u>
Herb Stratum				Column Totals: <u>12</u> (A) <u>60</u> (B)
1. <u>Croton</u> <u>boothii</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Erodium</u> <u>cicutarium</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>12</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>84</u> % Cover of Biotic Crust <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: _____

SOIL

Sampling Point: 89-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 5/3						Sandy gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Vernal Pools (F9)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetland hydrology must be present.	

Restrictive Layer (if present):
 Type: caliche
 Depth (inches): 8

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

OHWM I: CL, CS, S, SC, PL discarded & confirmed

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DOX City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 39-6
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: N 116.513195 Long: N 35.017931 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHUM</u> <u>W-25' (sheet, along)</u> <u>Photos: 75-5</u> <u>h-3"</u> <u>9-3.11</u> <u>76-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
<u>Sapling/Shrub Stratum</u>				<u>Prevalence Index worksheet:</u>
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
				UPL species _____ x 5 = _____
Total Cover: <u>0</u>				Column Totals: _____ (A) _____ (B)
<u>Herb Stratum</u>				Prevalence Index = B/A = <u>0</u>
1. _____				<u>Hydrophytic Vegetation Indicators:</u>
2. _____				___ Dominance Test is >50%
3. _____				___ Prevalence Index is ≤3.0 ¹
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
<u>Woody Vine Stratum</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				<u>Hydrophytic Vegetation Present?</u> Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Erodium cicutarium (<1%) observed in drainage

Sampling Point: 39-10

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10 YR 5/2						Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B5)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: EL, CS, PC, TV, SC F-10 4371002 / Confined

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PKX City/County: San Bernardino Sampling Date: 3/19/06
 Applicant/Owner: Circle Point State: CA Sampling Point: 40-6
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D Lat: W -116.467236 Long: N 35.035528 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>				
Remarks: OHMM <table border="1" style="float: right; border-collapse: collapse;"> <tr> <td style="padding: 2px;">W-3'</td> <td rowspan="3" style="padding: 2px;">Photos: 65-S 66-W</td> </tr> <tr> <td style="padding: 2px;">N-3"</td> </tr> <tr> <td style="padding: 2px;">S-3:1</td> </tr> </table>		W-3'	Photos: 65-S 66-W	N-3"	S-3:1
W-3'	Photos: 65-S 66-W				
N-3"					
S-3:1					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>2</u> x 4 = <u>8</u> UPL species <u>108</u> x 5 = <u>540</u> Column Totals: <u>10</u> (A) <u>5048</u> (B) Prevalence Index = B/A = <u>504.8</u>
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Atriplex canescens</u>	<u>2</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>2</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0' ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Brassica tournefortii</u>	<u>3</u>	<u>Y</u>	<u>NL</u>	
2. <u>Malacothrix alabratia</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	
3. <u>Chenopodium fremontii</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	
4. <u>Ratibegia neomexicana</u>	<u>1</u>	<u>N</u>	<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>8</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>92</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
4	10 YR 5/3						cobbly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Cobble

Depth (inches): 4

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: CL, CS, SD, PL, COM

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Afton Canyon-Mojave River

HBG Watershed ID # 14

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 14

Watershed Name: Afton Canyon - Mojave River

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

F-1.6-444

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

AFTON CANYON - MOJAVE RIVER

1GB Team #		Project Name: DesertXpress		Drainage Data										HUC 12 #		Comments
Date	M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM				
5/13	2010	2:12 PM	3	14D1	C163	2'	A	U	N	A: 13 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18			Use note pages at back of notebook for comments. Put comment number in block below.	
5/13	2010	2:18	3	14D2	C163	1.5'	A	U	Y	A: 13 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18				
5/13	2010	2:28	3	14M3*	C163	11'	A	U	N	A: 13, 15 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18			Both Field VERIFIED	
5/13	2010	2:32	3	14MD	C163	4'	A	U	N	A: 13, 15 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18				
5/13	2010	2:44	3	14MD	C163	3.5'	A	U	N	A: 13, 15 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18				
5/13	2010	2:47	3	14D	C163	2'	A	U	N	A: 13, 15 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18			Culvert cross ROAD	
5/13	2010	2:53	3	14BD	C163	/	I	U	N	A: 13, 15 D: 10	B: 11, 12 E: 12	C: 11, 12 F: 16, 18			Road cut OFF FROM FORMERLY 14D7 (7-5/26/16)	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 F:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

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HBG OHWM Field Data Sheet (Arid West)

AFTON CANYON - MOJAVE RIVER

IGB Team # RP-RYE

Project Name: DesertXpress

HBG Sub-Basin # (1-41) 14

HUC 12 # 180902082002

Drainage Data

Comments

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U)/or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/13 2010	3:03 PM	3	14D 8	102	1.0 12ft	A	U	N	A: 15 D: 10	B: 6,11 E: 12	C: 11,12 F: 16,18	
5/13 2010	3:08	3	14D 9	102	1.0 12ft	A	U	N	A: none D: 10	B: 6,11 E: 12	C: 11,12 F: 16,18	
5/13 2010	3:14	3	14B7 10	102	/	I	U	N	A: none D: none	B: none E: none	C: 11,12 F: 16,18	FORMER 14 D CROSS BLOCKED
5/13 2010	3:38	3	14M11	101	4.3	A	U	N	A: none D: none	B: none E: none	C: 8,12 F: 16,18	OHWS REASON NOT VERIFIED
5/13 2010	3:45	5	14F12		1.6	I	D	Y	A: 5,10,11,12 D: 3	B: 5,10,11,12 E: 3,10	C: 5,10,11,12 F: 18	
5/13 2010	3:52	5	14B13		1.1 D.O.	I	U	Y	A: 5,10,11,12 D: 3	B: 5,10,11,12 E: 3,10	C: 5,10,11,12 F: 18	RIT FIELD VERIFIED
5/13 2010	3:59	5	14M14		1.0 1.1	I	D	Y	A: 5,10,11,12 D: 3	B: 5,10,11,12 E: 3,10	C: 5,10,11,12 F: 18	RIT FIELD VERIFIED

F-1.16-446

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

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HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress				HBG Sub-Basin # (1 - 41)			HUC 12 #		Comments	
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM		Above OHWM
8-1-06		S	* 14D15		1.7 1.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,10	C: 6,11,12 F: 12	RTH FIELD VERIFIED
8-1-06		S	* 14D16		1.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	
8-1-06		S	* 14D17		1.1 1.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	RTH FIELD VERIFIED
8-1-06		S	* 14D17		1.1 1.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	RTH FIELD VERIFIED
8-1-06		S	* 14D18		1.1 1.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	RTH FIELD VERIFIED
8-1-06		S	* 14D19		6.0 2.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	RTH FIELD VERIFIED
8-1-06		S	* 14D19		2.0	A	D	Y	A: 5,10,11,12 D: 3	B: 2,10,11,12 E: 5,12	C: 5,11,12 F: 12	SAME DRAINAGE DATA AS 14D19

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 E:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress										HUC 12 #	
Drainage Data												Comments	
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM		
8-11-12		S	* 14 MD 220		3.0	A	D	Y	A	B	C	Same drainage Data is 14 D 19	
8-11-12		S	14 DR *		4.1 2.8	D	D	Y	D	E	F	Same drainage Data is 14 D 19	
8-11-12		S	14 DR *		4.1 S.D.	A	D	Y	A	B	C	Same drainage Data is 14 DR	
8-11-12		S	MDA		2.0	A	D	Y	D	E	F	Same drainage Data is 14 D 19	
8-11-12		S	* 14 MD 220		4.1 S.D.	A	D	Y	A	B	C	Same drainage Data is 14 D 19	
8-11-12		S	14 MD 220		4.1 4.0	A	D	Y	D	E	F	Same drainage Data is 14 D 19	
8-11-12		S	14 DR *		2.5	A	D	Y	A	B	C	Same drainage Data is 14 DR	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HGB Sub-Basin # (1 - 41)		HUC 12 #		Comments				
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
7-18-19		S	* MDS		11.0	A	D	Y	A:	B:	C:	Use note pages at back of notebook for comments. Put comment number in block below. SAME Drainage
									D:	E:	F:	DD-DAF 14219
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Afton Canyon-Mojave River***

HBG Watershed ID # 14

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Crescent Point State: CA Sampling Point: 40-1
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 7%
 Subregion (LRR): D Lat: W-116.441781 Long: N 35.051707 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE: 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWm w - 5' (bordered) photos: 54-P h - 3" 55-S s - 4" 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Atriplex canescens</u>	<u>2</u>	<u>Y</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>2</u> x 4 = <u>8</u>
Total Cover: <u>2</u>				UPL species <u>83</u> x 5 = <u>2515</u>
				Column Totals: <u>5</u> (A) <u>2824</u> (B)
				Prevalence Index = B/A = <u>54.6</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Braselia formicetii</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y</u>	<u>OPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Dafinogula nesiolexica</u>	<u>1</u>	<u>Y</u>	<u>OPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____			<u>NL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>3</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>97</u>			% Cover of Biotic Crust <u>0</u>	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

Sampling Point: 40-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18 +	10 YR 5/3						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Vernal Pools (F9) | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- Primary Indicators (any one indicator is sufficient)
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |
- Secondary Indicators (2 or more required)

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHWH I: PC, CS, SC, discreet / cont. red

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Box City/County: San Bernardino Sampling Date: 3/18/07
 Applicant/Owner: Circle Point State: CA Sampling Point: 40-2
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 10%
 Subregion (LRR): D LatW: -116.444537 Long: W 35.05093 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A Zone 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>	OHW W-2' W-3' S-3.1 Photos: 56-S 57-N
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks:			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>0</u>				
Herb Stratum				UPL species <u>4</u> x 5 = <u>20</u>
1. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Column Totals: <u>4</u> (A) <u>20</u> (B)
2. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>5</u>
3. <u>Rafinesquina poameicana</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	
4. <u>Chenopodium fremontii</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>4</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Remarks:				___ Problematic Hydrophytic Vegetation ¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No

Sampling Point: 40-2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 5/2						fine	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- | | | |
|--|--|--|
| <p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> | <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p> | <p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |
|--|--|--|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: gravel/cobble
 Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

- | | | |
|--|--|--|
| <p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p> |
|--|--|--|

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

0 HWM I: CL, CS, PC, cont. red

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: OSV City/County: San Bernardino Sampling Date: 3/19/04
 Applicant/Owner: Circle Point State: CA Sampling Point: 40-3
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W - 116.448803 Long: N 35.047211 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A / ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>						
Remarks: offshore <table border="1" style="border-collapse: collapse; margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px;">w - 9' (braided)</td> <td style="padding: 2px;">Photos:</td> </tr> <tr> <td style="padding: 2px;">h - 6"</td> <td style="padding: 2px;">59-5</td> </tr> <tr> <td style="padding: 2px;">s - 4'</td> <td style="padding: 2px;">60-5</td> </tr> </table>		w - 9' (braided)	Photos:	h - 6"	59-5	s - 4'	60-5
w - 9' (braided)	Photos:						
h - 6"	59-5						
s - 4'	60-5						

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>1</u> (A) <u>5</u> (B) Prevalence Index = B/A = <u>5</u>
<u>Sapling/Shrub Stratum</u>				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>1</u>				
<u>Woody Vine Stratum</u>				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10 YR 5/3						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: cobble
 Depth (inches): 4"

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <u>Primary Indicators (any one indicator is sufficient)</u> | | <u>Secondary Indicators (2 or more required)</u> |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Ddor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:

OH Wm I; CL, CS, PC discrep/cont'd #16456

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OSX City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Coral Point State: CA Sampling Point: 40-9
 Investigator(s): S.H., S.W., A.C. Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 3%
 Subregion (LRR): D Lat: W - 116.453790 Long: N 35.043849 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWMA W-2' (brn/dk) Photos: h-3" 61-S s-2' 62-N 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Atriplex canescens</u>	<u>2</u>	<u>Y</u>	<u>FACW UPL</u>	OBL species _____ x 1 = _____
3. <u>Ambrosia dumosa</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species <u>2</u> x 4 = <u>8</u>
Total Cover: <u>5</u>				UPL species <u>7.5</u> x 5 = <u>35.25</u>
Herb Stratum				Column Totals: <u>7</u> (A) <u>35.25</u> (B)
1. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	Prevalence Index = B/A = <u>5.0357</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>9%</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Sampling Point: 40-4

SOIL

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
10	10 YR 7/3					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: gravel/cobble
Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

DHMT: CL, CS, SD, SS, PL, discreet/confirmed F-16-458

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 40-5
 Investigator(s): JH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D Lat: W - 116.413694 Long: N 35.637769 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A zone 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWA w-4' (circle sheet Area) Photos: 63-N, 64-5 h-1" s-4'	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>5</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>9</u> x 5 = <u>45</u> Column Totals: <u>9</u> (A) <u>45</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Ardisia dumosa?</u>	<u>1</u>	<u>Y</u>	<u>UPL NL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>1</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>NL HPE</u>	
2. <u>Schizanthus barbatus</u>	<u>2</u>	<u>Y</u>	<u>NL HPE</u>	
3. <u>Malacothrix glabra</u>	<u>2</u>	<u>Y</u>	<u>NL HPE</u>	
4. <u>Chaenactis fremontii</u>	<u>2</u>	<u>Y</u>	<u>NL HPE</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>9</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>92</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				
Remarks:				

Sampling Point: 40.5

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14+	10 YR 5/3						sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
--	--	--

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: (S, RC, discreet / continue) NF-1.6-460

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CEV City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 41-1
 Investigator(s): S. Holson, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 4%
 Subregion (LRR): D Lat: W -116.417423 Long: N 35.067643 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A, ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> Remarks: _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> OFFW/1 w-6' h-6' s-3' Photos: 46-5 47-N
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VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species _____ x 5 = _____
Herb Stratum				Column Totals: _____ (A) _____ (B)
1. _____				Prevalence Index = B/A = <u>0</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: Comissoria boothii, Brassica fournetii observed in drainage (<1%)

Sampling Point: 41-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
4	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: caliche
 Depth (inches): 4

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
---	---	--

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHM I: C₁S₆F₁, cont'd F-1.6-462

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSV City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 41-2
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%) 3%
 Subregion (LRR): D Lat: W -116.423928 Long: N 35.063643 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: off Wxk w-6' (bordered); Photos: h-6" 48-N S-4:1 49-S 	

VEGETATION

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

Remarks:

Sampling Point: U12

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10 Y 2/2	4/2					sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

OHWM I: LL, SL, B, PL, SS, 1-6-464

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 41-3
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor! Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W-116.429705 Long: W 35.059748 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Yes, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Channel w-7' (braided) h-3 s-3.1</u> <u>Photos: 50-5 51-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>0</u>
<u>Sapling/Shrub Stratum</u>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Total Cover: <u>0</u>				
<u>Herb Stratum</u>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>0</u>				
<u>Woody Vine Stratum</u>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Characteris fremontii, Malacothrix glabrata observed in drainage (<1%)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DJ City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 41-4
 Investigator(s): JHy, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 25%
 Subregion (LRR): D Lat: W-116.434824 Long: N 35.056547 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>			
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>				
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>				
Remarks: OHWM <table style="display: inline-table; border: 1px solid black; margin-right: 20px;"> <tr><td style="padding: 2px;">w. 3'</td></tr> <tr><td style="padding: 2px;">h. 6"</td></tr> <tr><td style="padding: 2px;">s. 4'</td></tr> </table> Photos: 52-S 53-R				w. 3'	h. 6"	s. 4'
w. 3'						
h. 6"						
s. 4'						

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Carriidium flavidum</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Tamarix mississiana</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. _____			<u>FAC</u>	FACW species <u>10</u> x 2 = <u>20</u>
4. _____				FAC species <u>10</u> x 3 = <u>30</u>
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>20</u>				UPL species <u>22</u> x 5 = <u>110</u>
Herb Stratum				Column Totals: <u>322</u> (A) <u>13090</u> (B)
1. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	Prevalence Index = B/A = <u>4.09</u>
2. <u>Malacofurix glabata</u>	<u>1</u>	<u>Y</u>	<u>OPD</u>	
3. _____			<u>NL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks: _____				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18+	10 YR 5/2						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F1B)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (G1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHMPT: CL, CS, PL, SC, etc.

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
West Cronise Lake

HBG Watershed ID # 15

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 15

Watershed Name: West Cranist Lake

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Hairrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tone 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriarian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understorey 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriarian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

WEST CRONISE LAKE

GB Team # RP-RYE

Project Name: DesertXpress

HGB Sub-Basin # (1 - 41) 15

HUC 12 # 180908081705

Drainage Data

Date 1/ D / Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/13 2010	11:18	3	15D1	C167	6.0 12"	A	D	n	A: 2, 13 D: 10	B: 6, 11, 12 E: 12	C: 8, 11, 12 F: 16, 18	Culvert Feeds 15D1
5/13 2010	11:27	3	15D2	C167	2.2 27"	A	U	n	A: 14, 13 D: 10	B: 6, 11, 12 E: 12	C: 8, 11, 12 F: 16, 18	
5/13 2010	11:39	3	1513	C167	/	I	U	y	A: None D: None	B: None E: None	C: 12, 8 F: 16,	FORMERLY 15D3 (TL 526110) UNBURNED
5/13 2010	11:44	3	15D4	C167	0.7 8"	A	U	n	A: 2, 13 D: 10	B: 6, 11, 12 E: 12	C: 8, 12 F: 16, 18	
5/13 2010	12:28	3	1515	C165	3'	I	U	n	A: None D: None	B: None E: None	C: 12, 8 F: 16, 18	FORMERLY 15M5 INACTIVE (TL 526110)
5/13 2010	12:44	3	15M6	C165	11'	A	U	n	A: 7 D: 10	B: 6, 11, 12 E: 12	C: 8, 12 F: 16, 18	Collects H2O from culvert → of from upslope swath → led
5/13 2010	12:57	3	15D7	C165	2.0 24"	A	U	n	A: 16, 15 D: 10	B: 6, 8, 11, 12 E: 12	C: 8, 12 F: 16, 18	

reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: <i>DesertXpress</i>		HGB Sub-Basin # (1 - 41)		HUC 12 #		Comments				
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
10-13-10	0900	S	15 DB		0.5'	A	D	Y	A: 5, 10, 11, 12, 13 D: 3	B: 9, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 5, 15, 18	
10-13-10	0905	S	15 DA		1.4	A	D	Y	A: 5, 10, 11, 12, 13 D: 3	B: 9, 10, 11, 12 E: 9, 10, 11, 13	C: 5, 10, 11, 12 F: 5, 15, 18	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	
									A:	B:	C:	
									D:	E:	F:	

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
West Cronise Lake

HBG Watershed ID # 15

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 42-1
 Investigator(s): SH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 5%
 Subregion (LRR): D Lat: 33.116369725 Long: -116.084757 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>				
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>				
Remarks:			Off WMA / w- 3' (braided) / h- 6" / s- 3:1 Photos: S- 39 / N- 38			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (AVB)
4. _____				Total Cover: <u>0</u>	
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of:	Multiply by:
2. <u>Ericameria laevis</u>	<u>2</u>	<u>Y</u>	<u>NLUPL</u>	OBL species _____	x 1 = _____
3. <u>Eucelia frutescens</u>	<u>1</u>	<u>N</u>	<u>NLUPL</u>	FACW species _____	x 2 = _____
4. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y</u>	<u>NLUPL</u>	FAC species _____	x 3 = _____
5. <u>Larrea tridentata</u>	<u>1</u>	<u>N</u>	<u>NLUPL</u>	FACU species _____	x 4 = _____
Total Cover: <u>10</u>				UPL species <u>15</u>	x 5 = <u>75</u>
Herb Stratum				Column Totals: <u>15</u> (A)	<u>75</u> (B)
1. <u>Brassica tournefortii</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	Prevalence Index = B/A = <u>5</u>	
2. <u>Malacothrix alabata</u>	<u>1</u>	<u>N</u>	<u>NLUPL</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)	
3. <u>Schismus leucobatus</u>	<u>1</u>	<u>N</u>	<u>NLUPL</u>		
4. _____					
5. _____					
Total Cover: <u>5</u>				¹ Indicators of hydric soil and wetland hydrology must be present.	
Woody Vine Stratum					
1. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
2. _____					
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>95</u>		% Cover of Biotic Crust <u>0</u>			
Remarks:					

Sampling Point: 42-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/2						sand and cobbles	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHWM I: S₁, C₅, P₁, discre^{E-16-478}entified

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSX City/County: San Bernardino Sampling Date: 3/18/07
 Applicant/Owner: Circle Point State: CA Sampling Point: 42-2
 Investigator(s): SH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D Lat: W -116.38(447) Long: N 35.082(83) Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: * think W-2' Photos: 40-S h-12" 42-N s-4' 41-N 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>0</u>
Sapling/Shrub Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>0</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Herb Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Brassica tournefortii: observed in drainage (<1% cover)

SOIL

Sampling Point: 422

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 4/2						sand + riprap	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rip-rap
 Depth (Inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

F-116-4801

SHWM I: LLS, SD, SC, PC, con

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/18/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 42-3
 Investigator(s): SH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 5%
 Subregion (LRR): D Latitude: -116.393295 Longitude: 35.07665 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A zone 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks:			O/W/W W-4' W-6" S-3'	Photos: 43-S 44-E 45-W	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____	_____	_____	_____	Total Cover: <u>0</u> FACU	
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. <u>Arctostaphylos canescens</u>	<u>1</u>	<u>Y</u>	<u>UPE</u>	Total % Cover of:	Multiply by:
2. <u>Ambrosia dumosa</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	OBL species _____ x 1 = _____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____	FACU species <u>1</u> x 4 = <u>4</u>
4. _____	_____	_____	_____	UPL species <u>54</u> x 5 = <u>2820</u>	Column Totals: <u>5</u> (A) <u>3524</u> (B)
5. _____	_____	_____	_____	Prevalence Index = B/A = <u>84.8</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Bryssia integrifolia</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	<input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0' <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Malacothrix glabrata</u>	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
3. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
4. _____	_____	_____	_____		
Woody Vine Stratum					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Biotic Crust <u>0</u>			

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSX City/County: San Bernardino Sampling Date: 3/18/06
 Applicant/Owner: Circle Point State: CA Sampling Point: 43-2
 Investigator(s): JH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Flood Local relief (concave, convex, none): CONCAVE Slope (%): 30%
 Subregion (LRR): D Lat: 33.350854 Long: N 35.086987 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM w-3' h-6" s-4' Photos: 37-N 36-S</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____					
2. _____					
3. _____					
4. _____					
Total Cover: <u>0</u>					
Sapling/Shrub Stratum					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
Total Cover: <u>0</u>					
Herb Stratum					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
Total Cover: <u>0</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>			

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

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

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No

Remarks: Brassica tournefortii observed in drainage (<1%)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1 1/2	10 YR 4/2						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
--	--	--

Field Observations:

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

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

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OH WMA I: RC, SD, discreet/cont. F-16-484

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
East Cronise Lake

HBG Watershed ID # 16

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 16

Watershed Name: East Cronise Lake

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

EAST CRONISE LAKE

GB Team # RP-RYE		Project Name: DesertXpress		HBG Sub-Basin # (1-41) 16		HUC 12 # 180908081766		Comments				
Drainage Data												
Date 1/ D / Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/12 2016	2:01	3	16M1	C175	11'	A	U	N	A: 10, 14, 15 D: 10,	B: 6, 11, 12 E: 12, 14	C: 11, 12 F: 16, 18	Use note pages at back of notebook for comments. Put comment number in block below.
5/12 2016	2:53	3	16M2	C175	6'	A	U	N	A: 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	Road Interrupts Flows direct to MDZ then
5/12 2016	3:02	3	16M3	C175	11'	A	U	N	A: 15 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	to culvert, Everything upstream of Allow head Trail
5/12 2016	3:18	3	16DA	C174	24" 24"	A	U	N	A: NONE D: 10	B: NONE E: NONE	C: 11, 12 F: 16, 18	Arrow trail diverts down SLOP
5/12 2016	3:31	3	16D5	C174	12" 12"	A	U	N	A: 13, 15 D: 10	B: 6, 11, 12 E: 10	C: 11, 12 F: 16, 18	Headcut
5/12 2016	4:23	3	16M6	C168	/	I	U	N	A: NONE D: NONE	B: NONE E: NONE	C: 8 F: 16	NO No Drains Flows in to it, UNKNOWN
5/12 2016	10:04	3	16D7	C172	8" 0.7	A	D	N	A: 15 D: 10	B: 6, 12 E: 12	C: 11, 12 F: 16, 18	Feed by culvert erosion

IBG OHWM Field Data Sheet (Arid West)

EAST CRONISE LAKE

GB Team # RP-2ye

Project Name: DesertXpress

HBG Sub-Basin # (1-41) 16

HUC 12 # 18090208706

Drainage Data

Comments

Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
3/3 2010	10:06	7	16078	C172	/	I	D	N	A: none D: none	B: none E: none	C: 2, 8 F: 16, 18	Cut-off by I 15 FORMERLY 1608-TLE 12 UNKNOWN I
5/3 2010	10:11	3	16079	C172	1.0	A	D	N	A: 15 D: 10	B: 6, 12 E: 12	C: 13, 11 F: 16, 18	Feed by collect erosion
5/14 2010	3:00	3	16010	C171	6"	A	D	N	A: 16 D: 10	B: 6, 11 E: 12	C: 12, 11 F: 16, 18	Formerly TCE 6-1 NOW 12D 6
10/15/10	1:47	5	16010		0.5	A	D	Y	A: 2, 11, 12, 15, 18 D: 3	B: 2, 10, 11, 12 E: 12	C: 10, 11, 12 F: 15, 18	
10/15/10	13:10	5	16011		0.0	A	D	Y	A: 1, 4, 10, 11, 12, 15 D: 3	B: 2, 10, 11, 12 E: 12	C: 4, 5, 8, 9, 10, 11 F: 17	
									A: D: E: B: E: C: F: A: D: E: B: E: C: F: A: D: E: B: E: C: F:			

F-16-2491

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
East Cronise Lake

HBG Watershed ID # 16

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/19/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 45-1
 Investigator(s): JFLAD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat W -116.250497 Long: N 35.109762 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: D/A ZONB11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWH W-8' Photos: 13-5</u> <u>H-1' 14-N</u> <u>S-2'</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Amelanchier dumosa</u>	<u>1</u>	<u>Y OBL UPL</u>		Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>2</u> x 4 = <u>8</u>
Total Cover: <u>1</u>				UPL species <u>86</u> x 5 = <u>430</u>
				Column Totals: <u>8</u> (A) <u>4038</u> (B)
				Prevalence Index = B/A = <u>54.75</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y NL UPL</u>		_____ Dominance Test is >50%
2. <u>Aklonia villosa</u>	<u>1</u>	<u>N NL UPL</u>		_____ Prevalence Index is ≤3.0 ¹
3. <u>Oenothera deltoides</u>	<u>1</u>	<u>N NL UPL</u>		_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Salsola tragus</u>	<u>2</u>	<u>Y UPL</u>		_____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Schizanthus lanceolatus</u>	<u>1</u>	<u>N UPL</u>		
6. <u>(= S. Kali)</u>		<u>FACU*</u>		
7. <u>OR = S. pestifer</u>		<u>FACU</u>		
8. _____				
Total Cover: <u>7</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>93</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 4/2						sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: rip-rap
 Depth (inches): 6 inches

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen-Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: discreet/confined, (E165494) PL

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DIX City/County: San Bernardino Sampling Date: 3/18/07
 Applicant/Owner: Circle Point State: CA Sampling Point: 45-2
 Investigator(s): JH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 8%
 Subregion (LRR): D Lat: W - 116.25777 Long: N 35.135821 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks: <u>OHWM W-8' (sheet flow) photos: 21-5 22-N S-4'</u>					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u>	(A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(WB)
4. _____					
Total Cover: <u>0</u>					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of:	Multiply by:
2. _____				OBL species _____	x 1 = _____
3. _____				FACW species _____	x 2 = _____
4. _____				FAC species _____	x 3 = _____
5. _____				FACU species _____	x 4 = _____
				UPL species <u>5</u>	x 5 = <u>25</u>
Total Cover: <u>0</u>				Column Totals: <u>5</u> (A)	<u>25</u> (B)
				Prevalence Index = B/A = <u>5</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Sparganium tomentosum</u>	<u>1</u>	<u>Y</u>	<u>NL UBL</u>	___ Dominance Test is >50%	
2. <u>Abrus villosa</u>	<u>1</u>	<u>Y</u>	<u>NL UBL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>NL UBL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Schizanthus litoralis</u>	<u>1</u>	<u>Y</u>	<u>NL UBL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Comissaria boothii</u>	<u>1</u>	<u>Y</u>	<u>NL UBL</u>		
6. _____					
7. _____					
8. _____					
Total Cover: <u>5</u>					
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.	
1. _____				Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>
2. _____					
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>95</u>		% Cover of Biotic Crust <u>0</u>			
Remarks:					

SOIL

Sampling Point: 45-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-19	10 Y/R 4/2						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

O HWMF: SC, PC, discreet F-1.6-496

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 45-3
 Investigator(s): JH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W-116.259903 Long: N 35.104672 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>	Remarks: <u>OHM w-5' h-6" s-4'</u>
Photos: <u>30-S 31-N</u>		_____

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>6</u> x 5 = <u>30</u> Column Totals: <u>6</u> (A) <u>30</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Comissonia boothii</u>	<u>1</u>	<u>N NL UPL</u>		
2. <u>Schismus barbatus</u>	<u>2</u>	<u>Y NL UPL</u>		
3. <u>Brassica fourvetortii</u>	<u>1</u>	<u>N NL OBL</u>		
4. <u>Chaenactis fremontii</u>	<u>1</u>	<u>N NL UPL</u>		
5. <u>Malaconitix glabrata</u>	<u>1</u>	<u>N NL UPL</u>		
6. _____				
7. _____				
8. _____				
Total Cover: <u>6</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>94</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 45-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10 YR 4/2						sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

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

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	<p>Secondary Indicators (2 or more required)</p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHWM I: SP, CS, sheet flow, 1.6498 crect

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ISF City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Crocker Point State: CA Sampling Point: 45-4
 Investigator(s): JH, RD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor in NWI Local relief (concave, convex, none): CONCAVE Slope (%): 2%
 Subregion (LRR): D Lat: W-116.270956 Long: N 35.100533 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: Riverine Zone II

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? (If needed, explain any answers in Remarks.)
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWM w - 60' (banded) Photo: 32-S h - 6" 33-N s - 4:1	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Chilopsis linearis</u>	1	Y	FACW*	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>Tamarix vasmosis</u>	1	Y	FACFATW	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)
4. _____				
Total Cover: <u>2</u>				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum				OBL species _____ x 1 = _____
1. <u>Alhambra cuneata</u>	1	Y	UL-UPC	FACW species <u>2</u> x 2 = <u>4</u>
2. _____				FAC species <u>1</u> x 3 = <u>3</u>
3. _____				FACU species _____ x 4 = _____
4. _____				UPL species <u>3</u> x 5 = <u>15</u>
5. _____				Column Totals: <u>5</u> (A) <u>19</u> (B)
Total Cover: <u>1</u>				Prevalence Index = B/A = <u>3.8</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Brassica tournefortii</u>	1	Y	UL-UPC	___ Dominance Test is >50%
2. <u>Salsola vermiculata</u>	1	Y	UL-UPC	___ Prevalence Index is ≤3.0 ¹
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>9%</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 45-41

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 4/2						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>		<p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p> <p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>

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

Remarks:

OHWM I: PC, discred, sheet 4.6-500

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DEX City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-2
 Investigator(s): SH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): 4%
 Subregion (LRR): D Lat: W -116.216573 Long: N 35.129836 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A / ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>off W-5'</u> <u>h-6"</u> <u>s-2:1</u> Photos: <u>1-S</u> <u>2-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>0</u>
<u>Sapling/Shrub Stratum</u>				
1. <u>1.</u>				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>0</u>				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Hymenoclea (1%), Brassica tournefortii (<1%), observed in drainage.

SOIL

Sampling Point: 46-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
5	10 YR 4/2						gravelly sand	
5-18	10 YR 3/2						gravelly sand	strongly stratified

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHWI I: SD, RC, dissect/cor. 6-502

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/19/06
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-3
 Investigator(s): SH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hill Slope Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: 34.219614 Long: -116.128013 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>	Remarks: <u>OHWM</u> <u>W-3' sheet flow</u> <u>W-6"</u> <u>S-4.1</u> <u>Photos: 3-N</u> <u>4-S</u> <u>5-N</u>
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VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>23</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50% 33%</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>3</u> x 2 = <u>6</u> FAC species <u>3</u> x 3 = <u>9</u> FACU species _____ x 4 = _____ UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>5</u> (A) <u>16.19</u> (B) Prevalence Index = B/A = <u>3.238</u>
Sapling/Shrub Stratum				
1. <u>Tamarix ramosissima</u>	<u>13</u>	<u>Y FAC FACW</u>		
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>3</u>				
Herb Stratum				
1. <u>Grassia toulouferti</u>	<u>1</u>	<u>Y NL UPL</u>		
2. <u>Camissonia boefii</u>	<u>1</u>	<u>Y NL UPL</u>		
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

SOIL

Sampling Point: L16-3

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>2</u>	<u>10YR 4/2</u>						<u>fine sand</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: bedrock
 Depth (inches): 2"

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

OHWM I: SS, CL, discrete / conf. Ed 504

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSY City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-5
 Investigator(s): JH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: N 116, 226333 Long: N 35, 123850 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Ne, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>offwdm</u> <u>w - 30'</u> <u>w - 6"</u> <u>s - 2:1</u> <u>(photos: 7-8, 8-N)</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
4. _____	_____	_____	_____																	
Total Cover: <u>0</u>				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = <u>0</u>																				
Sapling/Shrub Stratum																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
Herb Stratum																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
Woody Vine Stratum																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
Total Cover: <u>0</u>																				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>																				

Remarks: Brassica fourcortii (<1%), observed in drainage.

SOIL

Sampling Point: 465

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
4	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rip-rap
 Depth (inches): 4

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>	
<p>Remarks:</p> <p><u>O HWM I : CL₂SO₂ discover & confirm 6-506</u></p>	

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SKX City/County: San Bernardino Sampling Date: 3/18/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-6
 Investigator(s): JH, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W -116.227705 Long: N 35.123138 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks:			OHWH w-1' Photos- 9-5 h-1' 10-N s-3:1		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All-Strata:	<u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: <u>0</u>				Total % Cover of: _____ Multiply by: _____	
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. _____	_____	_____	_____	FACW species _____	x 2 = _____
2. _____	_____	_____	_____	FAC species _____	x 3 = _____
3. _____	_____	_____	_____	FACU species _____	x 4 = _____
4. _____	_____	_____	_____	UPL species <u>4</u>	x 5 = <u>20</u>
Total Cover: <u>0</u>				Column Totals: <u>4</u> (A)	<u>20</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>	
1. <u>Brassica fourmetieri</u>	<u>4</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
2. _____	_____	_____	_____	___ Dominance Test is >50%	
3. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹	
4. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
Total Cover: <u>4</u>				¹ Indicators of hydric soil and wetland hydrology must be present.	
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>96</u>		% Cover of Biotic Crust <u>0</u>			

Remarks:

SOIL

Sampling Point: 466-60

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18	10 PR	1/2					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks:

OHWMA I: confirmed, by SS.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OSX City/County: San Bernardino Sampling Date: 3/18/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-7
 Investigator(s): JH, AP Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W - 116.232656 Long: N 35.120285 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 2015 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OH: W-1, h-6, S-2.1 Photos: 11-E, 12-W</u>	

VEGETATION

<u>Tree Stratum</u> (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: <u>Ø</u>				
<u>Sapling/Shrub Stratum</u>				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u>Ø</u>				
<u>Herb Stratum</u>				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>Ø</u>				
<u>Woody Vine Stratum</u>				
1. _____				
2. _____				
Total Cover: <u>Ø</u>				
% Bare Ground in Herb Stratum <u>Ø</u>	% Cover of Biotic Crust <u>Ø</u>			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B)
Prevalence Index = B/A = <u>Ø</u>	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No

Remarks: Brassica tournefortii (<1%) observed in drainage

SOIL

Sampling Point: 46-7

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 4/2						sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
--	--	--

Field Observations:

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

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

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: 46 PG confirmed

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

**HUC 12 Watershed
180902082502**

HBG Watershed ID # 17

**Within Mojave Watershed
(HUC 18090208)**

DesertXpress

Field Notebook

HBG Watershed ID # 17

Watershed Name: 180902082502

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessiccation/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

-IBG OHWM Field Data Sheet (Arid West)

IGB Team # **RP-Rye**

Project Name: **DesertXpress**

HGB Sub-Basin # (1-41) **17**

HUC 12 # **180902082502**

Drainage Data

Comments

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/12 2010	12:50	3	17MDA	C175	3'	A	U	N	A: 12 D: 10	B: 6, 11, 12 E: 12	C: 12 F: 16, 18	Use note pages at back of notebook for comments. Put comment number in block below. FORMERLY 17 D1-7L S12610
5/12 2010	12:54	3	17D2	C175	1.5' 1.8'	A	U	N	A: 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	
5/12 2010	12:57	3	17DB	C175	2.0' 2.2'	A	U	N	A: 10, 13, 11 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	
5/12 2010	1:05	3	17MDA	C175	5.5'	A	U	N	A: 13, 11, 15 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	
5/12 2010	1:10	3	17MP	C175	1.10' 1.10'	A	U	N	A: 15 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	
5/12 2010	1:20	3	17MD 6	C175	2.00' 1.60'	A	U	N	A: 11, 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	Barometer 56.37 in Hg dry to road near Route 111
5/12 2010	1:31	3	17D7	C175	1.5' 1.6'	A	U	N	A: 13 D: 10, 12	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	

HBG OHWM Field Data Sheet (Arid West)

IGB Team # TH, GD, CH, RP		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)		17		HUC 12 # 180902082502		Comments		
Drainage Data												
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
1/29/10	/	/	17MD8	C176/ C177	52'	A	U	Y	A: 6, 9 D: 10	B: 6, 7, 11, 12 E: 12, 14	C: 12 F: 16, 18	Formerly MD-2
1/29/10	/	/	17MD9	C176/ C177	16.5'	A	U	Y	A: 6 D: 10	B: 6, 11, 12 E: 12, 14	C: 12 F: 16, 18	Formerly MD-3
1/30/10	/	/	17MD10	C176	6'	A	U	N	A: 13 D: 10	B: 6, 11, 12 E: 12	C: 11 F: 16, 18	Formerly D-11
1/30/10	/	/	17MD11	C176	11'	A	U	Y	A: 10, 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 9 F: 16, 18	Formerly D-12
1/30/10	/	/	17D12	C176	2.3'	A	U	N	A: 9, 13 D: 10	B: 6, 11, 12 E: 12	C: 11 F: 16, 18	Formerly D-13 Very Shallow (Heliotopic)
1/30/10	/	/	17D13	C176	2.4'	A	U	Y	A: 9, 13 D: 10	B: 7, 11, 12 E: 12	C: 2, 12 F: 16, 18	Formerly D-14 Shallow drainage
1/30/10	/	/	17D14	C176	2.1'	A	U	N	A: 9, 13 D: 10	B: 7, 11, 12 E: 12	C: 11 F: 16, 18	Formerly D-15 Shallow bed

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 F:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

-HBG OHWM Field Data Sheet (Arid West)

IGB Team # R.P., T.H., M.D., G.H.		Project Name: DesertXpress		HBG Sub-Basin # (1-41)		17		HUC 12 # 180902082502		Comments		
Date	Time	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM		At OHWM	Above OHWM
1/30/10	/	/	17D15	C176	17'	A	U	N	A: 13 D:	B: 11, 12 E:	C: 2, 12 F: 16, 18	Shallow Bed Formerly D-16
1/30/10	/	/	17D16	C176	N/A	I	U	Y	A: none D: none	B: none E: none	C: 9, 12 F: 16, 18	Formerly D-17 Blocked 100' Upstream FORMERLY 17D17-16, 17, 18
1/30/10	/	/	17D17	C176	3'	A	U	N	A: 13 D: 10	B: 11, 12 E: 12, 14	C: 8, 12 F: 16, 18	Formerly D-18 FORMERLY 17D17-16, 17, 18
1/29/10	14:26	S	17D18		10.0	A	U	Y	A: 5, 10, 11, 12, 13, 14 D:	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
1/29/10	14:27	S	17D19		1.1	A	U	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	Basin DRAINAGE RTH FIELD VERIFIED
1/29/10	14:28	S	17D20		1.1	A	U	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 F:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HGB Sub-Basin # (1-41)		HUC 12 #		Comments				
64, TH		DesertXpress		17		1809070 82502						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
9-10-10	1425	S	17D21		2.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 16	Same drainage Date 02 17-D-21
9-10-10	1424	S	17D21*		1.1 1.0	A	D	Y	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 16	Same drainage Date 05 17-D-21
9-10-10	1425	S	17D21		1.5	A	D	Y	A: D:	B: E:	C: F:	Same drainage Date 02 17-D-21
9-10-10	1422	S	17D21		1.1	A	D	Y	A: D:	B: E:	C: F:	Same drainage Date 02 17-D-21
9-10-10	1421	S	17D21*		2.0	A	D	Y	A: D:	B: E:	C: F:	Same drainage Date 02 17-D-21
9-10-10	1348	S	17D21*		1.3	A	D	Y	A: D:	B: E:	C: F:	Same drainage Date 02 17-D-21
9-10-10	1349	S	17D21*		1.3 1.0	A	D	Y	A: D:	B: E:	C: F:	Same drainage Date 02 17-D-21

HBG OHWM Field Data Sheet (Arid West)

HBG Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)		HUC 12 #		Comments					
Date (M / D / Y)		Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
7-11-10	1340	S	* 17D21			1.3	A	U	Y	A:	B:	C:	Scan Diagram
						1.0	A	U		D:	E:	F:	Data as per 17D21
						2.0	A	U	Y	A:	B:	C:	Same Diagram
										D:	E:	F:	DATA AS per 17D21
										A:	B:	C:	Both Field Locations
										D:	E:	F:	
										A:	B:	C:	
										D:	E:	F:	
										A:	B:	C:	
										D:	E:	F:	
										A:	B:	C:	
										D:	E:	F:	

HBG OHWM Field Data Sheet (Arid West)

Ps 1 of 3

HGB Team # H.G.D. CH, R.P. Date: 4-29-2010 Project Name: Desert Xpress HBG Sub-Basin # (1-40) 180902082502 HUC TZE# 180902082502

Drainage Info			Bed / Channel Area Below OHWM					Area at OHWM Location					Additional Info		
Sample Point #	Map Sheet Ref #	OHW Width	Active (A) Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Comment/ Photo (Y / N)
MD-2	C-176 / C-177	52'	A	U		✓	✓	✓	A-b D-10		✓		✓		Photo (Y / N)
MD-3	C-176 / C-177	165'	A	U		✓	✓	✓	A-b D-10		✓		✓		Photo (Y / N)
															Photo (Y / N)
															Photo (Y / N)
															Photo (Y / N)
															Photo (Y / N)

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

0.4-29-10 data - now renumbered + included in previous pages of field notebook

HBG OHWM Field Data Sheet (Arid West)

Ps 2.0 F3

HGB Team # 2-TH-0000064 Date: 4-30-10 Project Name: Desert Xpress HUC 12# 180902082502
 HBG Sub-Basin # (40) 180902082502 no name

Drainage Info			Bed / Channel Area Below OHWM						Area at OHWM Location				Additional Info		
Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) / Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Comment/ Photo (Y/N)
D-11	176	6'	A	U	✓	✓	✓		D-10	✓	✓	✓	✓		Photo (Y/N)
D-12	176	11'	A	U	✓	✓			D-10				✓		Photo (Y/N)
D-13	176	27"	A	U	✓	✓	✓		D-10 D-14	✓	✓			D-6	Photo (Y/N) very shallow Mounds in portion (incl. Heliotrope)
D-14	176	29"	A	U	✓	✓	✓		D-10	✓	✓		✓ (minor)		Photo (Y/N) Shallow drainage
D-15	176	25"	A	U	✓	✓			D-10	✓	✓			D-6	Photo (Y/N) Shallow bed, Perks below sample.
D-16	176	20'	A	U	✓	✓			D-10		✓			D-6	Photo (Y/N) Shallow bed

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

(17)

HGB OHWM Field Data Sheet (Arid West)

Pg 3 of 3

HGB Team # 4-30-10 Date: 4-30-10 Project Name: Desert Xpress HUC 12# 180902082502

HGB Sub-Basin # (1-40) 18 no name

Sample Point #	Drainage Info				Bed / Channel Area Below OHWM				Area at OHWM Location				Additional Info		
	Map Sheet Ref #	OHW Width	Active (A)/ Inactive (I) Channel	Up (U)/ Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?		Shelving or Erosion Scars	Other OHWM Ind. #
D-17	17b	-	I	U											Blocked 100' upstream Photo (Y/N)
D-18	17b	96"	A	U					A-12 D-12				✓		Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)

Reference:

- D = Drainage
- M = Man Made
- MD = Major Drainage
- R = River

Indicator List on Back

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
180902082502

HBG Watershed ID # 17

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/05
 Applicant/Owner: Circle Point State: CA Sampling Point: 46-1
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W - 116.207367 Long: N 35.139029 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE H
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> Remarks:	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> O H W M $w - \bar{x} = 5'$ $s - 3:1$ $n - 6''$ Photos: 8993-E 8994-W
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VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>8</u> x 5 = <u>40</u> Column Totals: <u>8</u> (A) <u>40</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Ambrosia dumosa</u>	<u>3</u>	<u>Y NL UPL</u>		
2. <u>Atriplex hymenelytra</u>	<u>2</u>	<u>Y NL UPL</u>		
3. <u>Larrea tridentata</u>	<u>1</u>	<u>N NL UPL</u>		
4. _____				
5. _____				
Total Cover: <u>6</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Plantago ovata</u>	<u>2</u>	<u>Y NL UPL</u>		
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

Sampling Point: 46-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
14	10 YR	4/2					silty sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: gravel/cobble
 Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 8/17/07
 Applicant/Owner: Crocker Point State: CA Sampling Point: 47-1
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): flat Slope (%): 0%
 Subregion (LRR): D Lat: W = 116.183294 Long: N 35.165026 Datum: NAD 83
 Soil Map Unit Name: WPA NWI classification: N/A 200511
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM / W-25' braided / n-12" / S-4:1</u> Photos <u>8985-S / 8985-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y N/U UPL</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Encelia frutescens</u>	<u>3</u>	<u>Y N/U UPL</u>		OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>0</u>				UPL species <u>13</u> x 5 = <u>65</u>
Herb Stratum				Column Totals: <u>13</u> (A) <u>65</u> (B)
1. <u>Erechtoschizia minutiflora</u>	<u>1</u>	<u>Y N/U UPL</u>		Prevalence Index = B/A = <u>5</u>
2. <u>Plantago ovata</u>	<u>1</u>	<u>Y N/U UPL</u>		
3. <u>Phacelia distans</u>	<u>3</u>	<u>Y N/U UPL</u>		
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>5</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____				
2. _____				¹ Indicators of hydric soil and wetland hydrology must be present.
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>95</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: _____

F-1.6-527

SOIL

Sampling Point: 47-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p>
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Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one indicator is sufficient)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWMM I: CL, S, SD, SS, SC, PE-L6-528
 Sub comp: sand, gravel, cobble, boulders

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 47-2
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley floor Local relief (concave, convex, none): CONCAVE Slope (%): 3%
 Subregion (LRR): D Lat: W -116.191445 Long: N 35.156322 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Off WMI w-6' braided w-6' s-3:1 Photos: 8987-N 8988-S</u>			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hydrocotyle spicata</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Encelia frutescens</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>6</u>				UPL species <u>7</u> x 5 = <u>35</u>
Herb Stratum				Column Totals: <u>7</u> (A) <u>35</u> (B)
1. <u>Schizanthus lanceolatus</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	Prevalence Index = B/A = <u>5</u>
2. _____				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>1</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 47-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
14	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>
--	--

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>
--	--

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

Remarks:

DHWM I: CL, CS, SC, PL, discrete to confined

Sub comp sand, gravel, cobble, fine sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 47-3
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 35%
 Subregion (LRR): D Lat: W-116.203671 Long: S 35142997 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHVIM W-6' N-6' S-3:1</u> <u>Photos: 8990: S 8991: N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>10</u> (A) <u>50</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Euphorbia frutescens</u>	<u>3</u>	<u>Y UPL</u>	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Malacothrix glabrata</u>	<u>2</u>	<u>Y UPL</u>	_____	
2. <u>Camissonia micropis</u>	<u>1</u>	<u>N UPL</u>	_____	
3. <u>Schismus beringianus</u>	<u>1</u>	<u>N UPL</u>	_____	
4. <u>Chaenactis fremontii</u>	<u>1</u>	<u>N UPL</u>	_____	
5. <u>Echscholzia minutiflora</u>	<u>1</u>	<u>N UPL</u>	_____	
6. <u>Plantago ovata</u>	<u>1</u>	<u>N UPL</u>	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>7</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	% Bare Ground in Herb Stratum <u>43</u> % Cover of Biotic Crust <u>0</u>
Total Cover: <u>0</u>				

Remarks: _____

F-1.6-531

SOIL

Sampling Point: 47-3

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: <u>cobble</u> Depth (inches): <u>8</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (Includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: - 3 streambeds that intersect @ this point

OHWM I: confined, CL, SL, SD, SF, 1B/532

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

**HUC 12 Watershed
*180902082504***

HBG Watershed ID # 18

**Within Mojave Watershed
(HUC 18090208)**

DesertXpress

Field Notebook

HBG Watershed ID # 18

Watershed Name: 180902082504

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

GB Team #		Project Name: DesertXpress		HUC Sub-Basin # (1-41)		HUC 12 #		Comments				
20-21E		DesertXpress		18		180902082504						
Drainage Data												
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
5/11/2010	5:35	3	18D1	C178	2.0 2.4'	A	U	N	A: 16 D: 10	B: 12, 6 E: 12, 14	C: 8, 12 F: 16, 18	
5/11/2010	5:39	3	18D2	C176	2.0 2.4'	A	U	N	A: 16 D: 10	B: 6, 12 E: 12	C: 8, 12 F: 16, 18	
5/11/2010	5:38	3	18MD3	C178	7'	A	U	N	A: 16, 6 D: 10, 12	B: 6, 12 E: 12	C: 8, 12 F: 16, 18	
5/11/2010	5:46	3	18M14	C170	6'	A	U	N	A: 6 D: 10	B: 6, 12 E: 11, 12	C: 8, 12 F: 16, 14	
5/11/2010	5:52	3	18M15	C178	20'	A	D?	N	A: 16 D: 10	B: 12 E: 12	C: 8, 12 F: 16, 18	Sonora at H6+10 culvert
5/11/2010	5:57	3	18M6	C178	1'	A	U	N	A: 16 D: 10	B: 11 E: 12	C: 8, 12 F: 16, 18	private culvert
5/11/2010	10:12	3	18I7	C179	none	I	D	N	A: none D: none	B: none E: none	C: 8, 12 F: 16, 18	downslope berm on southside FORMERLY 18D7

HBG OHWM Field Data Sheet (Arid West)

IGB Team # <u>RP-RVE</u>		Project Name: <u>DesertXpress</u>		HUC 12 # <u>180902082504</u>		Comments						
HGB Sub-Basin # (1-41) <u>18</u>		Drainage Data										
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
5/2 2016	10:19 AM	3	18MD 8	C179	13.0 12'	A	D	n	A: 5 D: 10	B: 12, 13, 14 E: 10	C: 11, 12 F: 16, 18	Survey point HC410 culvert
5/2 2016	10:29	3	18MD 9	C179	N/A	I	D	n	A: NONE D: NONE	B: none E: none	C: 11, 12 F: 16	Perennial unknown colonizing erosion bush
5/2 2016	10:36	3	18MD 10	C179	21.0 20'	A	U	y	A: 6, 10 D: 10	B: 6, 9, 11, 12 E: 10	C: 11, 12, 17 F: 16, 18	Formerly 18 D 10 - 72 size
5/2 2016	11:01	3	18MD 11	C179	21.0 20'	A	U	y	A: 5, 6 D: 10	B: 12, 6, 11 E: 10	C: 8, 11, 12 F: 16, 18	
5/2 2016	11:0	3	18MD 12	C179	4.0 4'	A	U	n	A: 2 D: 10	B: 12, 6 E: 10	C: 8, 11, 12 F: 16, 18	Near culvert 5' culvert runs along road
5/2 2016	11:49	3	18MD 13	C178	3.0 3'	A	U	n	A: 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	
5/2 2016	11:50	3	18MD 14	C178	1.5 1.5'	A	U	n	A: 13 D: 10	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18	

IBG OHWM Field Data Sheet (Arid West)

GB Team #		Project Name: DesertXpress		HUC 12 #		HBG Sub-Basin # (1-41)		18		Comments															
Date		Time (24-Hour)		GPS Unit #		Sample Point #		Map Sheet Ref #		OHWM Width		Active (A) or Inactive (I) Channel		Up (U) or Down (D) Slope from Road		Photo (Y/N)		Below OHWM		At OHWM		Above OHWM		Use note pages at back of notebook for comments. Put comment number in block below.	
3/12/2016	11:58	3	18008	0178	6.0	A	U	N	A: 13 D: 12	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18														
3/12/2016	12:01	3	18009	0178	4.0	A	U	N	A: 6, 13, 11 D: 12	B: 6, 11, 12 E: 12	C: 11, 12 F: 16, 18														
3/12/2016		5	18010		2.0	A	D	Y	A: 5, 10, 11, 12, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18														
3/12/2016		5	18011		1.3	A	D	Y	A: 5, 10, 11, 12, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18														
3/12/2016		5	18012		1.0	A	D	Y	A: 5, 10, 11, 12, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18														
3/12/2016		5	18013		1.3	A	D	Y	A: 5, 10, 11, 12, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18														
3/12/2016		5	18014		1.5	A	D	Y	A: 5, 10, 11, 12, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18														

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress		HBG Sub-Basin # (1 - 41)			HUC 12 #		Comments			
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
9/1/10	5		1881		3.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
9/1/10	5		1881		3.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
9/1/10	5		1881		3.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	
9/1/10	5		1881		2.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	RTH FIELD VERIFIED
9/1/10	5		1881		2.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	Same Drainage Date as 18D25
9/1/10	5		1881		2.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	Same Drainage Date as 18D25
9/1/10	5		1881		4.0	A	D	Y	A: 5, 10, 11, 12, 13, 14 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	Same Drainage Date as 18D25

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
180902082504**

HBG Watershed ID # 18

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08

Applicant/Owner: Circle K State: CA Sampling Point: 48-1

Investigator(s): ADW... M... J... Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): (none) Slope (%): _____

Subregion (LRR): D Lat: W -116.170208 Long: N 35.179601 Datum: NAD 83

Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

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

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Same wash as 49-1.</u>	<u>DHWM 220ft wide 111 Facing W upstream</u> <u>< 1.0ft ht. 112 " E down</u> <u>> 4:1 113 " N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Parkinsonia aculeata (palo verde)</u>	<u>10</u>	<u>Y</u>	<u>FACW*</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species <u>10</u> x 2 = <u>20</u>
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>5</u>				UPL species <u>8</u> x 5 = <u>40</u>
				Column Totals: <u>18</u> (A) <u>60</u> (B)
				Prevalence Index = B/A = <u>3.33</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Cynodon dactylon spp (Patches)</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

Sampling Point: 48-1

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-8	10YR 4/2	100					gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p>
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Restrictive Layer (if present):
 Type: rock / cobble
 Depth (inches): 8 inches

Hydric Soil Present? Yes No

Remarks: Rock/cobble at 8 inches

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

Surface Water Present? Yes No Depth (inches): none

Water Table Present? Yes No Depth (inches): > 8

Saturation Present? Yes No Depth (inches): > 8

(Includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: Not much sign of recent flow. Concrete box culvert under freeway. Berms have been constructed to concentrate flow through culvert.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08
 Applicant/Owner: Circle K State: CA Sampling Point: L8-2
 Investigator(s): A. D. Schubert, M. W. Johnson, J. J. J. J. Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Valley Flood Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: N 116 17 52 S Long: N 35 13 73 W Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM 3 ft wide 0.5 ft ht 4:1 slope 114 Facing S 115 " N.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: <u>0</u>				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. <u>None</u>				FACW species _____	x 2 = _____
2. _____				FAC species _____	x 3 = _____
3. _____				FACU species _____	x 4 = _____
4. _____				UPL species _____	x 5 = _____
5. _____				Column Totals:	(A) _____ (B) _____
Total Cover: <u>0</u>				Prevalence Index = B/A = <u>0</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>None</u>				___ Dominance Test is >50%	
2. _____				___ Prevalence Index is ≤3.0 ¹	
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				___	
6. _____				___	
7. _____				___	
8. _____				___	
Total Cover: <u>0</u>				___	
Woody Vine Stratum				___	
1. _____				___	
2. _____				___	
Total Cover: _____				___	
% Bare Ground in Herb Stratum <u>100</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
% Cover of Biotic Crust <u>0</u>				___	

Remarks: Unvegetated

SOIL

Sampling Point: 48-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/2	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Bloitic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >18

Saturation Present? Yes _____ No Depth (inches): >18

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DITWM: SS, S, PC.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 48-3
 Investigator(s): A. Duchochoy, M. Wilkerson, J. Winbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: 33.170804 Long: -116.175166 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	<u>OHWM 20 ft wide 1 ft ht 4:1 discrete</u> <u>116 Facing S</u> <u>117 Facing N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea Salsola</u>	<u>2</u>	<u>N/A</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>2</u>				UPL species <u>2</u> x 5 = <u>10</u>
				Column Totals: <u>2</u> (A) <u>10</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>None</u>	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: _____				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Unvegetated - <5% cover.

SOIL

Sampling Point: 48-3

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
<u>0-18</u>	<u>10YR4/2</u>	<u>100</u>				<u>sand-gravel</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (2 or more required)</u> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): none

Water Table Present? Yes _____ No _____ Depth (inches): >18

Saturation Present? Yes _____ No _____ Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHMM: sl, ss, cl, pc
 Soil texture: sand gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: L8-L
 Investigator(s): A. Durbin, M. Widdowson, J. Winboldt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): _____
 Subregion (LRR): D Lat: W-116.1805167 Long: N 35.168668 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM 20 ft wide 118 Facing S 1 ft ht 119 " N 2:1 slope

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
<u>discrete</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>None</u>	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: _____				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = <u>0</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>None</u>	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: _____				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>100</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: Unvegetated

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-12</u>	<u>10YR 6/2</u>	<u>100</u>					<u>gravel-sand</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 12

Saturation Present? Yes _____ No Depth (inches): > 12

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM: sh, sc, ss, pc
 Substrate: Sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-5
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): 2%
 Subregion (LRR): D Lat: W -116.164484 Long: W 35.185427 Datum: NAD 83
 Soil Map Unit Name: WA NWI classification: WPA ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWM W-41 h-6' S-4' Photos: 9981.S 8992-N	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia frutescens</u>	<u>5</u>	<u>Y UPL</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y UPL</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>10</u>				UPL species <u>13</u> x 5 = <u>65</u>
Herb Stratum				Column Totals: <u>13</u> (A) <u>65</u> (B)
1. <u>Mimulus fremontii</u>	<u>1</u>	<u>Y OBL UPL</u>	<u>UPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Eschscholzia monticola</u>	<u>1</u>	<u>Y UPL</u>	<u>UPL</u>	
3. <u>Phacelia distans</u>	<u>1</u>	<u>Y UPL</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>97</u> % Cover of Biotic Crust <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks:				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

Sampling Point: 49.5

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
14	10 YR 4/2					Sandy gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: SS, PC, dissect
 S. h. ... each ...

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-1
 Investigator(s): A. Duncharlt, M. Nicholson, J. Winbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: 33° 11' 16.11734 Long: 117° 35' 18.9176 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Broad wash parallels freeway - rip rap on S edge.</u>		<u>OTW 180-350 ft width @ .5 ft/hr</u>	<u>109 Facing E</u> <u>110 " W</u>
<u>Data Pt is on E edge of small patch of palo verde</u>		<u>Slope 4:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Kalmia sonia aculeata (Palo verde)</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Geelia californica</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	FACW species <u>10</u> x 2 = <u>20</u>
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>15</u>				UPL species <u>2022</u> x 5 = <u>10110</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals:
1. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	<u>3032</u> (A) <u>125130</u> (B)
2. <u>Phacelia distans</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Comissonia sp.</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
4. <u>Bromus rubens</u>	<u>1</u>	<u>N</u>	<u>NI</u>	
5. <u>Schismus sp.</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>57</u>				Prevalence Index = B/A = <u>4</u> <u>4.06</u>
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				___ Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Total Cover: _____				
% Bare Ground in Herb Stratum <u>95</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

SOIL

Sampling Point: 49-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR4/2	100					gravel-sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >12

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >12

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators: Cl, Cs, Ss, Pc F-1.6-554
 C. install: small gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: B5X City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-4
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: W -116.135974 Long: N 35.196729 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: O H W M W-15' braided N-1' S-4' Photos: 9978-N 9977-S 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y</u>	<u>NLURL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ericameria cooperi</u>	<u>5</u>	<u>Y</u>	<u>NLURL</u>	OBL species _____ x 1 = _____
3. <u>Encelia frutescens</u>	<u>1</u>	<u>N</u>	<u>NLURL</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>8</u>				UPL species <u>18</u> x 5 = <u>90</u>
Herb Stratum				Column Totals: <u>18</u> (A) <u>90</u> (B)
1. <u>Plantago ovifolia</u>	<u>3</u>	<u>Y</u>	<u>NLURL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Chamaesyce allamandrinata</u>	<u>3</u>	<u>Y</u>	<u>NLURL</u>	
3. <u>Brassica tournefortii</u>	<u>2</u>	<u>Y</u>	<u>NLURL</u>	Hydrophytic Vegetation Indicators:
4. <u>Crotonella sp.</u>	<u>1</u>	<u>W</u>	<u>NLURL</u>	___ Dominance Test is >50%
5. <u>Chenactis fremontii</u>	<u>1</u>	<u>N</u>	<u>NLURL</u>	___ Prevalence Index is ≤3.0 ¹
6. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____				
Total Cover: <u>10</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>90</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: _____

F-1.6-555

Sampling Point: UC9-9

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 4/2						Sandy gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: <u>rip rfp</u> Depth (inches): <u>6</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks:

6 HWM I: CL, PC, discreet/contingent #1.6.556

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 499
 Investigator(s): SK, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope - headwater Local relief (concave, convex, none): convex Slope (%): 10%
 Subregion (LRR): D Lat: W - 116.152617 Long: N: 35.194350 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 2BVC11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: OHWRM NE - 3' Photos: 8979-N N - 6" 8980-S S - 2' 	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>5</u> (A) <u>25</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y</u> <u>NL</u> <u>KPL</u>	_____	
2. <u>Lovrea tridentata</u>	<u>1</u>	<u>N</u> <u>NL</u> <u>KPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Schismus lomifolius</u>	<u>1</u>	<u>N</u> <u>NL</u> <u>KPL</u>	_____	
2. <u>Plantago ovata</u>	<u>1</u>	<u>N</u> <u>NL</u> <u>KPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

F-1.6-557

Sampling Point: 499

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>3</u>	<u>1D YR</u>	<u>1/2</u>					<u>coarsely gleyed</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: boulders
 Depth (inches): 3

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:
 Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

F-1.6-558

OHWM I: discreet / confined by SD

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Oasis of Mara-Soda Lake

HBG Watershed ID # 19

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 19

Watershed Name: Oasis of Mara-Soda Lake

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

F-1.6-563

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriiparian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriparian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

14-19

IBG OHWM Field Data Sheet (Arid West)

OASIS OF MARRA-SODA LAKE

GB Team # <i>RP, RVE</i>		Project Name: <i>DesertXpress</i>		Drainage Data							HUC Sub-Basin # (1 - 41) <i>19</i>		HUC 12 # <i>180902082502</i>		Comments
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.			
<i>11-10-10</i>	<i>4:26 pm</i>	<i>3</i>	<i>1911</i>	<i>C181</i>	<i>0</i>	<i>I</i>	<i>U</i>	<i>Y</i>	A: <i>none</i> D: <i>none</i>	B: <i>none</i> E: <i>none</i>	C: <i>11,12</i> F: <i>16,18</i>	<i>UNKL "A" Cut off by Berm</i>			
<i>11-10-10</i>	<i>4:30 pm</i>	<i>3</i>	<i>1912</i>	<i>C181</i>	<i>11"</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>6,16</i> D: <i>10,12</i>	B: <i>6,16</i> E: <i>12,14</i>	C: <i>11,12</i> F: <i>16,18</i>				
<i>11-10-10</i>	<i>4:34 pm</i>	<i>3</i>	<i>1913</i>	<i>C181</i>	<i>4"</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>6,16</i> D: <i>10,12</i>	B: <i>6,16</i> E: <i>12,14</i>	C: <i>11,12</i> F: <i>16,18</i>	<i>NO SPR POINT</i>			
<i>11-10-10</i>	<i>4:40 pm</i>	<i>3</i>	<i>1914</i>	<i>C181</i>	<i>18"</i> <i>1.5'</i>	<i>A</i>	<i>U</i>	<i>N</i>	A: <i>11</i> D: <i>10,12</i>	B: <i>12,16</i> E: <i>12,14</i>	C: <i>11,12</i> F: <i>16,18</i>				
<i>12/29/10</i>	/	/	<i>1915</i>	<i>C184</i>	<i>12"</i> <i>1.0'</i>	<i>A</i>	<i>U</i>	<i>Y</i>	A: <i>13</i> D: <i>10</i>	B: <i>12,16</i> E: <i>12</i>	C: <i>11,12</i> F: <i>16,18</i>	<i>Formerly D-1</i>			
<i>12/29/10</i>	/	/	<i>1916</i>	<i>C184</i>	<i>16"</i> <i>19"</i>	<i>A</i>	<i>U</i>	<i>Y</i>	A: <i>13</i> D: <i>10</i>	B: <i>12,16</i> E: <i>12</i>	C: <i>11,12</i> F: <i>16,18</i>	<i>Formerly D-2</i>			
<i>12/29/10</i>	/	/	<i>1917</i>	<i>C184</i>	<i>2.6'</i> <i>31"</i>	<i>A</i>	<i>U</i>	<i>Y</i>	A: <i>13</i> D: <i>10</i>	B: <i>12,16</i> E: <i>12</i>	C: <i>11,12</i> F: <i>16,18</i>	<i>Formerly D-3</i>			

IBG OHWM Field Data Sheet (Arid West)

OASIS OF MARA-SODA LAKE

IBG Team # TH, RP, GH, GD		Project Name: DesertXpress		HUC Sub-Basin # (1-41)		HUC 12# 18090208Z508		Comments				
Date	Time	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road		Photo (Y/N)			
Drainage Data												
Date	Time	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
1/29/10	/	/	19M8 *	C184	19' ^{1.50}	A	U	Y	A: 7 D: 10	B: 6,12 E: 12	C: 12,8 F: 16,18	Formerly M-1
1/29/10	/	/	19MD9	C184	36"	A	U	Y	A: 13 D: 10	B: 6,12 E: 12	C: 12 F: 16,18	Formerly D-4
1/29/10	/	/	19M10	C184	16'	A	U	Y	A: 16 D: 10	B: 6,12 E: 12	C: 12 F: 16,18	Formerly D-5
1/29/10	/	/	19BD11	C184	/	I	U	Y	A: none D: none	B: none E: none	C: 12 F: 16,18	Formerly D-6 Man made berm blocks flow
1/29/10	/	/	19MD12	C184	3.4'	A	U	Y	A: 16 D: 10	B: 6,12 E: 12	C: 12,11 F: 16,18	Formerly D-7
1/29/10	/	/	19D13	C184	2'	A	U	Y	A: 13 D: 10	B: 6,12 E: 12	C: 12 F: 16,18	Formerly D-8
4/29/10	/	/	19M14	C184	10.8'	A	U	Y	A: 6 D: 10	B: 6,12 E: 12	C: 12 F: 16,18	Formerly M2 Man made drainage adjacent to Rd.

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 3:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

HBG OHWM Field Data Sheet (Arid West)

IGB Team # **TK, G, D, G, H, R, P.**

Project Name: **DesertXpress**

HBG Sub-Basin # (1 - 41) **19**

HUC 12 # **180902082508**

OASIS OF MARA - SODA LAKE

Drainage Data

Comments

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
1/29/10	/	/	19D15	C184	1.3'	A	U	Y	A: 13 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18	Formerly D-9
1/29/10	/	/	19M16*	C182	14.3'	A	U	Y	A: 16 D: 10	B: 6, 12 E: 12	C: 11, 12 F: 16, 18	Formerly M-3
1/29/10	/	/	19D-17		2.3'	A	U	Y	A: 6, 13 D: 10	B: 6, 12 E: 12	C: 8, 2, 11, 12 F: 16, 18	Formerly D-10
1/29/10	/	/	19MD-18		11.3'	A	U	N	A: 6, 15 D: 10	B: 6, 12 E: 12	C: 8, 11 F: 16, 18	Formerly MD-1
4/11/10	1315	S	19D22		1.5'	A	U	Y	A: 5, 10, 11, 12, 13, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	NOT ON ROUTE
5/11/10	1314	S	19D00		1.0'	A	U	Y	A: 5, 10, 11, 12, 13, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	
9/15/10	1314	S	19D14		1.0'	A	U	Y	A: 5, 10, 11, 12, 13, 15, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18	

HGB OHWM Field Data Sheet (Arid West)

HGB Team # 64TH		Project Name: DesertXpress		HGB Sub-Basin # (1 - 41) 19		HUC 12 # 180902082502						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9.1.10	1353	S	19022		1.0	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1313	S	19023		1.0	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1310	S	* 19024		1.5	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1310	S	* 19025		1.5	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1354	S	* 19026		1.25	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1305	S	19027		1.0	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1348	S	* 19028		1.5	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021
9.1.10	1307	S	19029		2.0	A	D	Y	A:	B:	C:	Same Drainage Date is NOT ON 19021

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HGB OHWM Field Data Sheet (Arid West)

HGB Team # 64714		Project Name: DesertXpress		HGB Sub-Basin # (1 - 41) 19		HUC 12 # 180902082508						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
9/11/10	0848	S	19D33*		2.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0849	S	19D33*		2.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0850	S	19D33*		2.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0851	S	19D33*		3.0	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0850	S	19D34*		1.5	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0851	S	19D34*		1.5	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED
9/11/10	0853	S	19D34*		1.5	A	D	Y	A: D: A: D:	B: E:	C: F:	Same Drainage Data as 19D21/VERIFIED

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
 G:\DesertXpress\Desert Xpress Drainage Field Data Sheet (Final).doc

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>CA, TR</i>		Project Name: <i>DesertXpress</i>		HUC 12 # <i>180902082508</i>		Comments						
HGB Sub-Basin # (1-41) <i>19</i>		HUC 12 # <i>180902082508</i>		HUC 12 # <i>180902082508</i>		Comments						
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>9-1-10</i>		<i>S</i>	<i>190290*</i>		<i>1.5</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>		<i>S</i>	<i>190291*</i>		<i>1.8</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>	<i>08:30</i>	<i>S</i>	<i>190292</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>	<i>08:30</i>	<i>S</i>	<i>190293*</i>		<i>1.5</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>	<i>12:00</i>	<i>S</i>	<i>190294</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>	<i>08:18</i>	<i>S</i>	<i>190295*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>
<i>9-1-10</i>	<i>08:11</i>	<i>S</i>	<i>190296*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>Same Drawing DATA AS /STP 19D 21/VERIFIED</i>

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River

HBG OHWM Field Data Sheet (Arid West)

HBG Team # <i>GA, JA</i>		Project Name: <i>DesertXpress</i>		HBG Sub-Basin # (1 - 41) <i>19</i>		HUC 12 # <i>1809020 22508</i>		Comments				
Drainage Data												
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
<i>9/1/10</i>	<i>0810</i>	<i>S</i>	<i>192415*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Same drainage data as 19221</i>
<i>9/1/10</i>	<i>0809</i>	<i>S</i>	<i>192415*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Same drainage data as 19221</i>
<i>9/1/10</i>	<i>0809</i>	<i>S</i>	<i>192415*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>	<i>C:</i>	<i>Same drainage data as 19221</i>
<i>9/1/10</i>	<i>0808</i>	<i>S</i>	<i>192415*</i>		<i>1.0</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>D:</i>	<i>E:</i>	<i>F:</i>	<i>Same drainage data as 19221</i>
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	
									<i>A:</i>	<i>B:</i>	<i>C:</i>	
									<i>D:</i>	<i>E:</i>	<i>F:</i>	

Reference: D = Drainage; M = Manmade; MD = Major Drainage; R = River
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HBG OHWM Field Data Sheet (Arid West)

Pg 1 of 3

HGB Team # H. G. D. 6143 Date: 4-29-2010 Project Name: Desert Xpress HBG Sub-Basin # (V-40) 19 HUC 12# 180902082508

Sample Point #	Map Sheet Ref #	Drainage Info			Bed / Channel / Area Below OHWM						Aerial OHWM Location				Additional Info
		OHWM Width	Active (A) / Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	
D-1	C-184	18'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	F-12	Photo (Y/N)
D-2	C-184	19'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	E-12	Photo (Y/N)
D-3	C-184	31'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	E-12	Photo (Y/N)
M-1	C-184	19'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	E-12 A-7	Photo (Y/N)
D-4	C-184	38'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	F-12	Photo (Y/N) Two photos taken
D-5	C-184	16'	A	U	✓	✓	✓	✓	✓	✓	✓	✓	✓	F-12	Photo (Y/N) Captures flow from upstream man-made berm.

4-29-10 data, re numbered & incorporated into previous pages

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

HBG OHWM Field Data Sheet (Arid West)

Ps 2 of 3

HGB Team # H, G, D, C-H & EP Date: 4-29-2010 Project Name: Desert Xpress HUC 12# 180902082508

HGB Sub-Basin # (1-40) 19 Basin of the Hondo-Santa Fe

Drainage Info			Bed / Channel Area Below OHWM					Aerial OHWM Location					Additional Info		
Sample Point #	Map Sheet Ref #	OHW Width	Active (A) Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Comment/ Photo (Y/N)
D-6	C-184	13.5 13 1/4 10 1/4	I	U					F-16					F-16	Man Made Barren Blocks Flow In Active. Photo (Y/N)
D-7	C-184	41"	A	U	✓	✓	✓ Sand		A-1b D-10			✓	✓	E-12	Photo (Y/N)
D-8	C-184	3.0 24"	A	U				✓	D-10				✓	E-12	Photo (Y/N)
M-2	C-184	10 1/4 10 1/4	A	U		✓	✓	✓	A-6 D-10				✓	F-12	Photo (Y/N) Man Made drains c Along Road
D-9	C-184	15"	A	U		✓		✓	D-10				✓		Photo (Y/N)
M-3	C-182	14 1/4 4"	A	U		✓	✓	✓	A-1b D-10				✓	E-12	Photo (Y/N)

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

HGB OHWM Field Data Sheet (Arid West)

P3 3 of 3

HGB Team #		Date: 4-29-2010		Project Name: Desert Xpress		HUC 12#		HGB Sub-Basin # (1-10)		Aerial OHWM Location		Additional Info			
P3-006-H3-B-D		180902082508		19		180902082508		19		180902082508		180902082508			
Drainage Info		Bed / Channel Area Below OHWM		Bed / Channel Area Below OHWM		Bed / Channel Area Below OHWM		Bed / Channel Area Below OHWM		Bed / Channel Area Below OHWM		Bed / Channel Area Below OHWM			
Sample Point #	Map Sheet Ref #	OHW Width	Active (A) / Inactive (I) Channel	Up (U) / Down (D) Slope from Road	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Sediment Deposits	Drift Deposits (Debris)	Sorted Material?	Shelving or Erosion Scars	Other OHWM Ind. #	Comment/ Photo (Y/N)
D-10	C182	27"	A	U	✓	✓	✓	✓	A-6 D-10	✓		✓		E-12	Photo (Y/N) Deeply Incised
MD-1	C182	11 1/4"	A	U	✓	✓	✓	✓	A-6 D-10					B-3 E-12	Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)
															Photo (Y/N)

Reference:
 D = Drainage
 M = Man Made
 MD = Major Drainage
 R = River
 Indicator List on Back

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Oasis of Mara-Soda Lake***

HBG Watershed ID # 19

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSX City/County: San Bernardino State: CA Sampling Date: 3/17/08
 Applicant/Owner: Circle Point Sampling Point: 49-2
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 3%
 Subregion (LRR): D Lat W - 116.121570 Long: W 35.20019 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology → significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM w-8' h-1' s-31'</u> <u>Photos: 8965-S 8966-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia futescens</u>	<u>2</u>	<u>Y</u>	<u>NL-VPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hammamelis virginiana</u>	<u>2</u>	<u>Y</u>	<u>NL-VPL</u>	OBL species _____ x 1 = _____
3. <u>Eriogonum fasciculatum</u>	<u>3</u>	<u>Y</u>	<u>NL-VPL</u>	FACW species _____ x 2 = _____
4. <u>Ambrosia dumosa</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>4</u>				UPL species <u>15</u> x 5 = <u>75</u>
Herb Stratum				Column Totals: <u>15</u> (A) <u>75</u> (B)
1. <u>Brassica tournefortii</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Euphorbia riccartii</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	
3. <u>Crotonanthus sp.</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	
4. <u>Schizanthus barbatus</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	
5. <u>Chorizanthe brevicaulis</u>	<u>1</u>	<u>N</u>	<u>NL-VPL</u>	
6. <u>Chamaesyce albamarginata</u>	<u>2</u>	<u>Y</u>	<u>NL-VPL</u>	
7. _____				
8. _____				
Total Cover: <u>7</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>0.3</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: _____

SOIL

Sampling Point: 49-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2	10 YR 4/2						sandy gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophylic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: vipmp
 Depth (inches): 2

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Secondary Indicators (2 or more required)

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

OHM I' CL, CS, S, SS, SL
sub comp: sand, gravel, rubble, riprap

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSK City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle K State: CA Sampling Point: 49-3
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Wet slope Local relief (concave, convex, none): CONCAVE Slope (%): 2%
 Subregion (LRR): D Lat = 116.122229 Long = 35.200756 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation NO, Soil _____, or Hydrology → significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM W-12' h-6" S-2:1</u> <u>Photos: 8967-W 8968-E</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
Total Cover: <u>0</u>				Column Totals: _____ (A) _____ (B)
Herb Stratum				Prevalence Index = B/A = <u>0</u>
1. _____				Hydrophytic Vegetation Indicators:
2. _____				___ Dominance Test is >50%
3. _____				___ Prevalence Index is ≤3.0 ¹
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Hymenoclea salsola (2%) observed in drainage

SOIL

Sampling Point: 49.3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: cobble
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: Other (channelized) - B+B, pc
 C.L. com: silt, sand, gravel, cobble

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DCX City/County: San Bernardino Sampling Date: 3/17/04
 Applicant/Owner: Creek Point State: CA Sampling Point: 49-4
 Investigator(s): SH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5%
 Subregion (LRR): D Lat: W - 116° 25' 16.8" Long: N 35.170325 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

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 _____, 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 <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:			OHWM W-1' h-1' S-2:1 Photos: 8969-E 8970-W

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0/1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0/25%</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Atriplex hymenelytra</u>	<u>3</u>	<u>Y NL UPL</u>		OBL species _____ x 1 = _____
2. <u>Atriplex canescens</u>	<u>2</u>	<u>Y FAC+UPL</u>		FACW species <u>X</u> x 2 = <u>2</u>
3. <u>Quercus basilaris</u>	<u>2</u>	<u>Y NL UPL</u>		FAC species <u>1</u> x 3 = <u>3</u>
4. <u>Tamarix ramosissima</u>	<u>1</u>	<u>N FAC FACW</u>		FACU species <u>2</u> x 4 = <u>8</u>
Total Cover: <u>8</u>				UPL species <u>5755</u> x 5 = <u>28525</u>
Herb Stratum				Column Totals: <u>58</u> (A) <u>28728</u> (B)
1. <u>Brassica tournefortii</u>	<u>1</u>	<u>N NL UPL</u>		Prevalence Index = B/A = <u>4.9</u> <u>4.93</u>
2. <u>Plantago ovata</u>	<u>45</u>	<u>Y NL UPL</u>		Hydrophytic Vegetation Indicators:
3. <u>Schizanthus barbatus</u>	<u>3</u>	<u>N NL UPL</u>		___ Dominance Test is >50%
4. <u>Chenactis fremontii</u>	<u>1</u>	<u>N NL UPL</u>		___ Prevalence Index is ≤3.0 ¹
Total Cover: <u>50</u>				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Woody Vine Stratum				___ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>50</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

SOIL

Sampling Point: L11

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>3</u>	<u>10 YR 4/2</u>						<u>cobbly gravel</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Sandy Redox (S5)</p> <p>Stripped Matrix (S6)</p> <p>Loamy Mucky Mineral (F1)</p> <p>Loamy Gleyed Matrix (F2)</p> <p>Depleted Matrix (F3)</p> <p>Redox Dark Surface (F6)</p> <p>Depleted Dark Surface (F7)</p> <p>Redox Depressions (F8)</p> <p>Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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Restrictive Layer (if present):
 Type: cobble
 Depth (Inches): 3

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Salt Crust (B11)</p> <p>Blotic Crust (B12)</p> <p>Aquatic Invertebrates (B13)</p> <p>Hydrogen Sulfide Odor (C1)</p> <p>Oxidized Rhizospheres along Living Roots (C3)</p> <p>Presence of Reduced Iron (C4)</p> <p>Recent Iron Reduction in Plowed Soils (C6)</p> <p>Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWM I: SC
Sub com A: Sand, gravel, cobbles

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TEX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-5
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5%
 Subregion (LRR): D Lat W -116.127792 Long N 35.197752 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM W-1' Photos: 8971-E</u> <u>W-6" 8972-W</u> <u>S-2:1</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:	
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____	
1. <u>Prosopis glandulosa</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>	OBL species _____ x 1 = _____	
2. <u>Atriplex canescens</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	FACW species _____ x 2 = _____	
3. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	FAC species _____ x 3 = _____	
4. _____				FACU species <u>3</u> x 4 = <u>12</u>	
5. _____				UPL species <u>12</u> x 5 = <u>60</u>	
Total Cover: <u>13</u>				Column Totals: <u>15</u> (A) <u>72</u> (B)	
Herb Stratum				Prevalence Index = B/A = <u>4.8</u>	
1. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
2. <u>Scirpus barbatus</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
3. _____				___ Prevalence Index is ≤3.0 ¹	
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____				Indicators of hydric soil and wetland hydrology must be present.	
7. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
8. _____					
Total Cover: <u>2</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>			

marks: _____

SOIL

Sampling Point: 49-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18	10 YR 4/3						sandy silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one indicator is sufficient)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

Surface Water Present? Yes _____ No Depth (Inches): _____

Water Table Present? Yes _____ No Depth (Inches): _____

Saturation Present? Yes _____ No Depth (Inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: SD, CL
 sub comp: silt, sand, gravel, cobble

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DFX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-6
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Wetlands Local relief (concave, convex, none): Concave Slope (%): 5%
 Subregion (LRR): D Lat W - 116.1291661 Long: N 35.197442 Datum: NAD83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM w-11 h-6" S-2:1 Photos: 8973-S 8974-N</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:	
<u>Sapling/Shrub Stratum</u>				Total % Cover of:	Multiply by:
1. <u>Eucalyptus frutescens</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____	x 1 = _____
2. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____	x 2 = _____
3. <u>Larrea tridentata</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	FAC species _____	x 3 = _____
4. _____	_____	_____	_____	FACU species _____	x 4 = _____
5. _____	_____	_____	_____	UPL species <u>30</u>	x 5 = <u>150</u>
Total Cover: <u>8</u>				Column Totals:	<u>30</u> (A) <u>150</u> (B)
<u>Herb Stratum</u>				Prevalence Index = B/A = <u>5</u>	
1. <u>Cammissonia brevipes</u>	<u>7</u>	<u>Y</u>	<u>NL UPL</u>	Hydrophytic Vegetation Indicators:	
2. <u>Plantago ovata</u>	<u>7</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%	
3. <u>Brassica frutescens</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹	
4. <u>Chenopodium sp.</u>	<u>3</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
8. _____	_____	_____	_____		
Total Cover: <u>22</u>					
<u>Woody Vine Stratum</u>					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: <u>0</u>					
% Bare Ground in Herb Stratum <u>78</u>		% Cover of Biotic Crust <u>0</u>			

Remarks: _____

SOIL

Sampling Point: 49-6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
3	10 YR 4/2						loamy gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Cobble
 Depth (inches): 3

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Offham I: PC, CL
 Substratum: sand, gravel, cobble

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DFX City/County: San Bernardino Sampling Date: 3/17/05
 Applicant/Owner: Circle Point State: CA Sampling Point: 49-7
 Investigator(s): JH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: W - 116.130401 Long: N 35.197077 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM w-1" Photos: 8975-S</u> <u>w-6" 8976-N</u> <u>s-3:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Total % Cover of: _____				Multiply by:
OBL species _____ x 1 = _____				
FACW species _____ x 2 = _____				
FAC species _____ x 3 = _____				
FACU species _____ x 4 = _____				
UPL species <u>10</u> x 5 = <u>50</u>				
Column Totals: <u>10</u> (A) <u>50</u> (B)				
Prevalence Index = B/A = <u>5</u>				
Hydrophytic Vegetation Indicators:				
___ Dominance Test is >50%				
___ Prevalence Index is ≤3.0 ¹				
___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
___ Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present.				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Hymenoclea salsola</u>	<u>3</u>	<u>Y</u>	<u>NL-UPL</u>
2. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y</u>	<u>NL-UPL</u>
3. <u>Encelia frutescens</u>	<u>1</u>	<u>N</u>	<u>NL-UPL</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
Total Cover: <u>6</u>			
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Plantago ovata</u>	<u>2</u>	<u>Y</u>	<u>NL-UPL</u>
2. <u>Schismus barbatus</u>	<u>2</u>	<u>Y</u>	<u>NL-UPL</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
Total Cover: <u>4</u>			
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
Total Cover: <u>0</u>			
% Bare Ground in Herb Stratum <u>96</u>	% Cover of Biotic Crust <u>0</u>		

Remarks: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR	4/2					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F1B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: cobble
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____

(Includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

OHWR I: CL
 C.L. com: silt, sand, gravel, cobble

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSX City/County: San Bernardino Sampling Date: 3/17/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 50-1
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): LOW TO W Slope (%): 3%
 Subregion (LRR): D Lat: W -116.189655 Long: N 35.220052 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology → significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHW 19 W - 20' Photos 8954-S</u> <u>W - 1' 8955-N</u> <u>S - 3:11</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y NL UPL</u>		OBL species _____ x 1 = _____
2. <u>Eucalia frutescens</u>	<u>1</u>	<u>N NL UPL</u>		FACW species _____ x 2 = _____
3. _____	_____	_____		FAC species _____ x 3 = _____
4. _____	_____	_____		FACU species _____ x 4 = _____
5. _____	_____	_____		UPL species <u>9</u> x 5 = <u>45</u>
Total Cover: <u>6</u>				Column Totals: <u>9</u> (A) <u>45</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>
1. <u>Camissonia brevipes</u>	<u>1</u>	<u>Y NL UPL</u>		Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Crotona sp.</u>	<u>1</u>	<u>Y NL UPL</u>		
3. <u>Plantago ovata</u>	<u>1</u>	<u>Y NL UPL</u>		
4. _____	_____	_____		
5. _____	_____	_____		
6. _____	_____	_____		
7. _____	_____	_____		
8. _____	_____	_____		
Total Cover: <u>3</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				
1. _____	_____	_____		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____		
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Blotic Crust <u>0</u>		

Sampling Point: SO-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
8	10 YR 4/2						gravel sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
--	--

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM ±: CL, CS, S, SS, SC, PC

16-588

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Dye City/County: San Bernardino Sampling Date: 3/17/05
 Applicant/Owner: Circle Point State: CA Sampling Point: 50-2
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 2%
 Subregion (LRR): D Lat: W-116.113504 Long: N 35.213297 Datum: NAD 83
 Soil Map Unit Name: D1A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Photos 8956-W OHWM W-15' (E-W), 30' (braided levee)</u> <u>8957-S N-72' (both)</u> <u>S-2:1 (both)</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Euphorbia arborescens</u>	<u>1</u>	<u>Y NL UPL</u>	_____	OBL species: _____ x 1 = _____
2. <u>Hydrocotyle salsola</u>	<u>1</u>	<u>Y NL UPL</u>	_____	FACW species: _____ x 2 = _____
3. _____	_____	_____	_____	FAC species: _____ x 3 = _____
4. _____	_____	_____	_____	FACU species: _____ x 4 = _____
5. _____	_____	_____	_____	UPL species: <u>5</u> x 5 = <u>25</u>
Total Cover: <u>2</u>				Column Totals: <u>5</u> (A) <u>25</u> (B)
Herb Stratum				Prevalence index = B/A = <u>5</u>
1. <u>Plantago wata</u>	<u>1</u>	<u>Y NL UPL</u>	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Crotona sp</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
3. <u>Chenopodium fremontii</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>3</u>				Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>97</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

SOIL

Sampling Point: 50-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 4/2						granulic sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p>

Restrictive Layer (if present):
 Type: riprap
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

DHWM I: CL, CS, S, SS, CC, PL, CP, 1916-3900

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXX City/County: San Bernardino Sampling Date: 3/17/06
 Applicant/Owner: Circle Point State: CA Sampling Point: 50-3
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D Lat: W -116.117280 Long: N 35.207129 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWMA W-6' W-6' S-2:1 photo: 8956-J 8959-N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>4</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia dumosa</u>	<u>3</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>8</u>				UPL species <u>16</u> x 5 = <u>80</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: <u>16</u> (A) <u>80</u> (B)
1. <u>Schismus barbatus</u>	<u>4</u>	<u>Y</u>	<u>NL UPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Plantago ovata</u>	<u>4</u>	<u>Y</u>	<u>NL UPL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>8</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____				<input type="checkbox"/> Dominance Test is >50%
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
% Bare Ground in Herb Stratum <u>92</u>	% Cover of Biotic Crust <u>0</u>	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		

Remarks: _____

SOIL

Sampling Point: SO-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
4	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: other (channelized)
 C. 1. canal ...

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OSK City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Creek Point State: CA Sampling Point: SI-1
 Investigator(s): S. Holson, S. Windbolt, A. Dierdorf Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): LOW CONCAVE Slope (%): 4%
 Subregion (LRR): D Lat: W -116.101169 Long: N 35.234195 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology → significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:		OHWM W-15' N-5' S-2'	
		Photos: 8949-E 8949-W	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Total % Cover of: _____				Multiply by: _____
OBL species _____ x 1 = _____				
FACW species _____ x 2 = _____				
FAC species _____ x 3 = _____				
FACU species _____ x 4 = _____				
UPL species <u>9</u> x 5 = <u>45</u>				
Column Totals: <u>9</u> (A) <u>45</u> (B)				
Prevalence Index = B/A = <u>5</u>				
Hydrophytic Vegetation Indicators:				
___ Dominance Test is >50%				
___ Prevalence Index is ≤3.0 ¹				
___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
___ Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present.				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Encelia frutescens</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>
2. <u>Atriplex dumosa</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>
3. _____			
4. _____			
5. _____			
Total Cover: <u>6</u>			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Commissaria brevipes</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>
2. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>
3. <u>Chenopodium fremontii</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>
4. <u>Eschscholzia minutiflora</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>
5. _____			
6. _____			
7. _____			
8. _____			
Total Cover: <u>3</u>			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
Total Cover: <u>0</u>			

% Bare Ground in Herb Stratum 97 % Cover of Biotic Crust 0

Remarks: _____

SOIL

Sampling Point: S1-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
8	10 YR 4/2						gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

DHWI F: Ch S

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DKX City/County: San Bernardino Sampling Date: 3/17/06
 Applicant/Owner: Circle Point State: CA Sampling Point: 51-2
 Investigator(s): SH, SW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): P Lat: W-116.102154 Long: N 35.23455 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation NO, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM: 2-1 S'</u> <u>h-6"</u> <u>S-2:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
5. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
6. _____				UPL species _____ x 5 = _____
7. _____				Column Totals: _____ (A) _____ (B)
8. _____				Prevalence Index = B/A = <u>0</u>
Total Cover: <u>0</u>				Hydrophytic Vegetation Indicators:
1. _____				<input type="checkbox"/> Dominance Test is >50%
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>0</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

SOIL

Sampling Point: 512

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>9</u>	<u>10 YR 4/2</u>						<u>gravel</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: CL, S, RC

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/17/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 51-3
 Investigator(s): JH, JW, AD Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 3%
 Subregion (LRR): D East: W -116.106210 Long: N 35.225634 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology > significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> Remarks: _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> OHWM W-15' W-16" S-2:1 Photos: 8952-S 8953-N
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VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Encelia frutescens</u>	<u>4</u>	<u>Y NL UPL</u>	_____	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species <u>7</u> x 5 = <u>40</u>
Total Cover: <u>4</u>				Column Totals: <u>8</u> (A) <u>40</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y NL UPL</u>	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Plantago alata</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
3. <u>Croton sp.</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
4. <u>Schizanthus barbatus</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>4</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

PROFILE: CHCS, S, 25
 cl. sand, silt, gravel, cobbles, v. r. r.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 52-4
 Investigator(s): A Durwardt M Widdowson J Wambolt Section, Township, Range: _____ (Note: NO 52-31 form)
 Landform (hillslope, terrace, etc.): Valley Floor (NWI-Lake) Local relief (concave, convex, none): shallow concave Slope (%): _____
 Subregion (LRR): D Lat: W-116.079092 Long: N 35.260300 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: LAKE ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> No _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Edge of Soda Lake on east/south side of Baker</u>		<u>OTWM: see over</u>	<u>105 Facing S</u> <u>106 Facing N</u> <u>107 " W</u> <u>108 E</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>15</u> x 2 = <u>30</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>15</u> (A) <u>30</u> (B) Prevalence Index = B/A = <u>2</u>
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Atriplex occidentalis</u>	<u>15</u>	<u>Y</u>	<u>FACW+</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: _____				
Herb Stratum				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: _____				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Playa is predominantly unvegetated, with small, dense patches of iodine bush. Data point is at one small patch of iodine bush.

SOIL

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-18	10YR4/3	100					Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >18
 Saturation Present? Yes _____ No Depth (inches): >18
 (Includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks: long freeway bridge. DTHM is unreliable / unclear / inconsistent because of very low gradient. Needs further analysis. There are small meandering channels across play bed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/16/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 52-5
 Investigator(s): J. Holson, J. Windholt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): low/level Slope (%): 0%
 Subregion (LRR): D Lat: N 46.093067 Long: W 35.249608 Datum: NAD83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 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 _____, 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: OHWM w-24' h-12' s-2:1 Photos: 8946-E 8947-W	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>1615</u> x 5 = <u>8075</u> Column Totals: <u>16</u> (A) <u>8079</u> (B) Prevalence Index = B/A = <u>84.6</u>
2. <u>Atriplex canescens</u>	<u>1</u>	<u>Y</u>	<u>FACU UPL</u>	
3. <u>Encelia antecedens</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Camissonia brevipes</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Schismus barbatus</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	
3. <u>Brassica tournefortii</u>	<u>2</u>	<u>N</u>	<u>NL UPL</u>	
4. <u>Plantago ovata</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>13</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>87</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

F-1.6-601

Sampling Point: 525

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR		5Y3				Loamy silt A @ both channels. leaves present soil cracking - prolonged inundation	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input checked="" type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
--	---

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks:

OHWMA Indic: Confined, CL, CS, S, SO, LD, SS
 P.K. 602

Soil Sand loam, gravel, cobble, siltstone.

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Otto Mountain-Silver Lake

HBG Watershed ID # 20

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 20

Watershed Name: Otto Mountain - Silver Lake

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(E) At OHW	(F) Above OHW
<p>Hydroriparian indicators</p> <ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
<p>Mesoriparian indicators</p> <ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriparian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriparian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriparian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
<p>Xeroriparian indicators</p> <ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriparian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriparian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

070 MOUNTAIN-SILVER LAKE

GB Team #		Project Name: DesertXpress		Drainage Data										HUC 12 #		Comments	
Date	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM						
M/D/Y									A: D:	B: E:	C: F:						
5/14/2010	2002	3	2002	0191	18"	A	D	W	15,13 10	6,12 12	8,12 16,18			Feed 125 containing			
7/10/2010	2002	3	2002	0191	12"	A	D	N	6,15 10	6,12 12	8,12 16,18			Moved to 21D8			
5/16/2010	2002		2002	0191	12"	A	D	N	6 10	6,12,11 12	8,12 16,18						
10-17-10	2009	5	2002		06'	A	D	Y	16,10,11,12 3	2,10,11,12 12	3,5,8,9,10 18'			NO BIR PINK OBSERVATION TAKEN			

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

**HUC 12 Watershed
*Otto Mountain-Silver Lake***

HBG Watershed ID # 20

**Within Mojave Watershed
(HUC 18090208)**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 3/16/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 55-5
 Investigator(s): J. Holson J. Windbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 1%
 Subregion (LRR): D Lat: W-115.992006 Long: N 35.318465 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM W-12' Photos: 8942-E</u> <u> N-3" 8943-W</u> <u> S-4" </u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (NB)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
Total Cover: <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>5</u> (A) <u>25</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y NL UPL</u>	_____	
2. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>4</u>				
Herb Stratum				
1. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>1</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		

marks:

SOIL

Sampling Point: 555

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
---	--

Field Observations:

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

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

Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

Offroad I: LL, CS, discreet
 sub. comp: gravel, sand, cobble

F-I-6-611

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Hytens Well

HBG Watershed ID # 21

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 21

Watershed Name: Hytens Hill

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriarian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriarian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

IBG OHWM Field Data Sheet (Arid West)

HYTENS WELL

IBG Team #		Project Name: DesertXpress		HUC 12 #		Comments						
22-RVE		DesertXpress		180902082601		Use note pages at back of notebook for comments. Put comment number in block below.						
Drainage Data												
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
3/15/2010	12:40	3	2121	C104	200	A	U	Y	A: 12 D: 16	B: 12 E: 16, 18	C: 12 F: 16, 18	RTT FIELD VEGETATION
3/16/2010	12:50	3	2122	C104	250	A	D	Y	A: 13, 11 D: 16	B: 6, 12 E: 12	C: 8, 12 F: 16, 18	Feed by cubers
3/16/2010	12:51	3	2123	C104	200	I	D	Y	A: 12 D: 16	B: 12 E: 16, 18	C: 12 F: 16, 18	Water Highway
3/16/2010	1:04	3	2124	C104	200	A	D	Y	A: 6 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18	
3/16/2010	1:16	3	2125	C102	200	A	U	Y	A: 6 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18	
3/16/2010	1:23	3	2126	C102	200	A	U	Y	A: 6 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18	
3/16/2010	1:39	3	2127	C102	200	A	U	Y	A: 6 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18	

HBG OHWM Field Data Sheet (Arid West)

HYTENS WELL

IGB Team #		Project Name: DesertXpress		Drainage Data							HUC 12 # 180902082601		Comments
Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.	
5/14/10	2:59	3	21D8	C191	12 ^{ft} 1.0	A	D	N	A: 6.15 D: 10	B: 6.12 E: 12	C: 8.12 F: 16.18	Original 2002	
7/1/10	09:44-10	5	21D9*		2.0	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Data imp AS 21D8	
9/1/10	5:45-6	5	21D10*		2.0	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Drainage Data as 21D8	
9/1/10	04:45	5	21D11		1.0	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Drainage Data as 21D8	
9/1/10	09:11	5	21D12*		2.0	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Drainage Data as 21D8	
9/1/10	09:40	5	21D12*		2.0	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Drainage Data as 21D8	
9/1/10	09:40	5	21D12*		1.5	A	D	Y	A: D: A: D:	B: E: B: E:	C: F: C: F:	Same Drainage Data as 21D8	

ICF Jones & Stokes
Wetland Determination Data Forms –
Arid West Region

For DesertXpress

HUC 12 Watershed
Hytens Well

HBG Watershed ID # 21

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 5/16/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 55-1
 Investigator(s): S. Holson, S. Windolf Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): D Lat: N 115.956071 Long: N 35.341178 Datum: NAD 83
 Soil Map Unit Name: NA NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OH WM w-5' k-2" s-4" </u> Photos: 8936-E 8937-W	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>8</u>	<u>Y NL OPL</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Croton tomentosus</u>	<u>10</u>	<u>Y NL OPL</u>		OBL species _____ x 1 = _____
3. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y NL OPL</u>		FACW species _____ x 2 = _____
4. _____	_____	_____		FAC species _____ x 3 = _____
5. _____	_____	_____		FACU species _____ x 4 = _____
Total Cover: <u>23</u>				UPL species <u>34</u> x 5 = <u>170</u>
				Column Totals: <u>34</u> (A) <u>170</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>5</u>
1. <u>Brassica tournefortii</u>	<u>4</u>	<u>Y NL OPL</u>		Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Plantago ovata</u>	<u>3</u>	<u>Y NL OPL</u>		
3. <u>Elytaria sp.</u>	<u>2</u>	<u>N NL OPL</u>		
4. <u>Chorizanthe breviflora</u>	<u>2</u>	<u>N NL OPL</u>		
5. _____	_____	_____		
6. _____	_____	_____		
7. _____	_____	_____		
8. _____	_____	_____		
Total Cover: <u>11</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____		
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>89</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10 YR 9/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Bloitic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:

OHJM Ent: 4L, CS,

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DSX City/County: San Bernardino Sampling Date: 5/16/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 55-2
 Investigator(s): S. Holman - S. Wickbalt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): D 115.955436 109: N 35.339757 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM w-7' h-3 s-4.1</u> <u>Photos: 8934-W 8935-E</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Larrea tridentata</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>8</u>				UPL species <u>110</u> x 5 = <u>80</u>
				Column Totals: <u>110</u> (A) <u>80</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Plantago ovata</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Brassica tournefortii</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Comissonia brevipes</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Eriogonum inflatum</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Chenopodium brevicornu</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
6. <u>Cycotriton sp.</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>8</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>92</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: _____

F-1.6-622

Sampling Point: SS-2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
14	10 YR 4/6						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Verlic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p>

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>

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

Remarks:

Off limits: CL, CS, discreet / confined F-1.6-623

Soil comp: sand gravel rubble

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DIX City/County: San Bernardino Sampling Date: 3/16/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 55-3
 Investigator(s): J. Holman, J. Windbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 1%
 Subregion (LRR): D Date: 115.965364 Long: N 35.336595 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 201E11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation NO, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation NO, 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 <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM 1/2' - 3' - 4'</u> <u>photos! 8939 - W 8938 - E</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Total Cover: <u>0</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>2</u>	<u>N</u>	<u>NL UPL</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>12</u>				UPL species <u>14</u> x 5 = <u>70</u>
				Column Totals: <u>14</u> (A) <u>70</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Eriogonum inflatum</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%
2. <u>Rudbeckia ovata</u>	<u>1</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0	10 PR	4/2					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

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

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

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

(Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM I: discol, LD, CS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: D5X City/County: San Bernardino Sampling Date: 3/16/08
 Applicant/Owner: Circle Point State: CA Sampling Point: SS-4
 Investigator(s): J. Holson, J. Windholt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 1%
 Subregion (LRR): D Lat: -115.975388 Long: N 35.328953 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Off/WM</u> <u>W - 12'</u> <u>h - 3"</u> <u>S 4:1</u> <u>Photo: 8940-W</u> <u>8941-E</u>			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
Total Cover: <u>0</u>				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
Sapling/Shrub Stratum				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y NL UPL</u>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>7</u> x 5 = <u>35</u> Column Totals: <u>7</u> (A) <u>35</u> (B) Prevalence Index = B/A = <u>5</u>
2. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y NL UPL</u>	_____	
3. <u>Larrea tridentata</u>	<u>1</u>	<u>N NL UPL</u>	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>5</u>				
Herb Stratum				
1. <u>Plantago ovata</u>	<u>1</u>	<u>Y NL UPL</u>	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				
Remarks: _____				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10 YR	4/5					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>	
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks:</p>		

off W/M I: Cl, dissect,

Exhibit B2

DesertXpress Field Data For Mojave Watershed (HUC 18090208)

Contents:

HBG Watershed Number	HUC 12 Watershed Name	HBG Field Data	ICF Jones & Stokes Field Data	Comments
1	Burkhardt Lake – Mojave River	Yes	Yes	Not in current preferred route. Former Victorville station location in this watershed
2	Bell Mountain Wash	Yes	Yes	
3	Brisbane Valley-Wild Wash	Yes	Yes	
4	Town of Lenwood-Mojave River	Yes	Yes	
5	Town of Johnstons Corner	Yes	Yes	
6	180902081004	Yes	No	
7	City of Barstow- Mojave River	Yes	Yes	
8	Odessa Canyon	Yes	Yes	
9	Sunrise Canyon-Mojave River	Yes	Yes	
10	Lake Jodie-Mojave River	Yes	Yes	
11	Dolores Lake	Yes	No	In Coyote-Cuddeback Lakes HUC 8 watershed, not Mojave Watershed
12	Manix Wash	Yes	Yes	
13	Wilhelm Wash-Mojave River	Yes	Yes	
14	Afton Canyon-Mojave River	Yes	Yes	
15	West Cronise Lake	Yes	Yes	
16	East Cronise Lake	Yes	Yes	
17	180902082502	Yes	Yes	
18	180902082504	Yes	Yes	
19	Oasis of Mara-Soda Lake	Yes	Yes	
20	Otto Mountain-Silver Lake	Yes	Yes	
21	Hytens Well	Yes	Yes	
22	Halloran Spring-Halloran Wash	Yes	Yes	

Huffman-Broadway Group

Field Data Forms

For DesertXpress

HUC 12 Watershed
Halloran Spring-Halloran Wash

HBG Watershed ID # 22

Within Mojave Watershed
(HUC 18090208)

DesertXpress

Field Notebook

HBG Watershed ID # 22

Watershed Name: Halloran Spring - Halloran Wash

If found, please return to:

George Ball
Huffman-Broadway Group, Inc.
828 Mission Avenue
San Rafael, California 94901
415.925.2000
gball@h-bgroup.com

Return Postage Guaranteed

Potential Geomorphic OHWM Indicators

(A) Below OHW	(B) At OHW	(C) Above OHW
<ol style="list-style-type: none"> 1) In-stream dunes 2) Crested ripples 3) Flaser bedding 4) Harrow marks 5) Gravel sheets to rippled sands 6) Meander bars 7) Sand tongues 8) Muddy point bars 9) Long gravel bars 10) Cobble bars behind obstructions 11) Scour holes downstream of obstructions 12) Obstacle marks 13) Stepped-bed morphology in gravel 14) Narrow berms and levees 15) Streaming lineations 16) Dessication/mud cracks 17) Armored mud balls 18) Knick Points 	<ol style="list-style-type: none"> 1) Valley flat 2) Active floodplain 3) Benches: low, mid, most prominent 4) Highest surface of channel bars 5) Top of point bars 6) Break in bank slope 7) Upper limit of sand-sized particles 8) Change in particle size distribution 9) Staining of rocks 10) Exposed root hairs below intact soil layer 11) Silt deposits 12) Litter (organic debris, small twigs and leaves) 13) Drift (organic debris, larger than twigs) 	<ol style="list-style-type: none"> 1) Desert pavement 2) Rock varnish 3) Clast weathering 4) Salt splitting 5) Carbonate etching 6) Depositional topography 7) Caliche rubble 8) Soil development 9) Surface color/tones 10) Drainage development 11) Surface relief 12) Surface rounding

F-1.6-632

Potential Vegetation OHWM Indicators

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	<ol style="list-style-type: none"> 1) Herbaceous marsh species 2) Pioneer tree seedlings 3) Sparse, low vegetation 4) Annual herbs, hydromesic ruderals 5) Perennial herbs, hydromesic clonals 	<ol style="list-style-type: none"> 1) Annual herbs, hydromesic ruderals 2) Perennial herbs, hydromesic clonals 3) Pioneer tree seedlings 4) Pioneer tree saplings 	<ol style="list-style-type: none"> 1) Annual herbs, xeric ruderals 2) Perennial herbs, non-clonal 3) Perennial herbs, clonal and non-clonal co-dominant 4) Mature pioneer trees, no young trees 5) Mature pioneer trees w/upland species 6) Late-successional species
Mesoriarian indicators	<ol style="list-style-type: none"> 6) Pioneer tree seedlings 7) Sparse, low vegetation 8) Pioneer tree saplings 9) Xeroriarian species 	<ol style="list-style-type: none"> 5) Sparse, low vegetation Annual herbs, hydromesic 6) Ruderals 7) Perennial herbs, hydromesic clonals 8) Pioneer tree seedlings 9) Pioneer tree saplings 10) Xeroriarian species 11) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 7) Xeroriarian species 8) Annual herbs, xeric ruderals 9) Perennial herbs, non-clonal 10) Perennial herbs, clonal and non-clonal codominant 11) Mature pioneer trees, no young trees 12) Mature pioneer trees, xeric understory 13) Mature pioneer trees w/upland species 14) Late-successional species 15) Upland species
Xeroriarian indicators	<ol style="list-style-type: none"> 10) Sparse, low vegetation 11) Xeroriarian species 12) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 12) Sparse, low vegetation 13) Xeroriarian species 14) Annual herbs, xeric ruderals 	<ol style="list-style-type: none"> 16) Annual herbs, xeric ruderals 17) Mature pioneer trees w/upland species 18) Upland species

HBG OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress										HUC 12 #	
HGB Sub-Basin # (1 - 41)		Drainage Data										Comments	
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments	
5-14-10	11:23 AM	3	22MD1	C186	5.0	A	D?	NO	A: 6,16 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	D very float	
5-14-10	12:06	3	22D2	C196	1.0 .5	A	U	YES	A: 13,11,16 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	RTH field verified	
5-14-10	12:08	3	22D3	C196	1.0 1.6	A	U	NO	A: 13,11 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18		
5-14-10	12:12	3	22D4	C196	1.0 1.6 1.6	A	U	NO	A: 11,6 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	RTH Field VSET F EP	
5-14-10	1:31	3	22D5	C190	1.5	A	U	NO	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	036 set 45' North 82.5	
5-14-10	3:17	3	22D6	C190	1.8 1.5	A	U	NO	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	off set 18 North	
5-15-10	11:01	3	22D7		3.0	A	U	NO	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18		

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress										HUC 12 #		Comments
		HBG Sub-Basin # (1 - 41)												
		Drainage Data												Use note pages at back of notebook for comments. Put comment number in block below.
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM			
5-15-10	11:04	3	22MD8		3.0	A	D	NO	A: 6, 13 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18			
5-15-10	12:52	3	22D9	C187	1.5	A	D		A: 6, 13 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18		formerly TCEQ-	
5-15-10	1:02	3	22D10	C187	1.0	A	D		A: 6, 13 D: 10	B: 6, 12 E: 12	C: 8, 11, 12 F: 16, 18		formerly TCEQ- I Fed by collect	
9-1-10	12:45	5	22D11		1.8 30.00 0.5	A	D	yes	A: 5, 10, 11, 12, 13, 16 D: 3	B: 2, 10, 11, 12 E: 5, 12	C: 5, 10, 11, 12 F: 18		RTH FIELD VERIFIED	
9-1-10	12:42	5	22D12		1.5 1.5	I A	D	yes	A: D:	B: E:	C: F:		RTH FIELD VERIFIED	
9-1-10	12:44	5	22D13	D-5	1.5 2.0 2.5 2.0	A	D	yes	A: D:	B: E:	C: F:		RTH FIELD VERIFIED	
9-1-10	12:43	5	22D14		1.0 1.3	A	D	yes	A: D:	B: E:	C: F:			

HGB OHWM Field Data Sheet (Arid West)

HGB Team #		Project Name: DesertXpress										HUC 12 #	
		HGB Sub-Basin # (1 - 41)											
Drainage Data													
Date (M/D/Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments	
9.1.10	0728	S	22D15		2.0	A	D	YES	A:	B:	C:		
10.12.10		S	22D16		.5	A	D	YES	D:	E:	F:		
10.12.10		S	22D17		.5	A	D	YES	A:	B:	C:	Not an OHWM	
10.12.10		S	22D18		-	A	D	YES	D:	E:	F:	Not an OHWM	
									A:	B:	C:		
									D:	E:	F:		
									A:	B:	C:		
									D:	E:	F:		
									A:	B:	C:		
									D:	E:	F:		

1-900-500-5157
 Room Reservations
 386-123457

HBG OHWM Field Data Sheet (Arid West)

HALLOWN SPRING - HALLOWAN WAS IT

1GB Team #		Project Name: DesertXpress		Drainage Data							HUC 12 # 186902082008		Comments
Date	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM		
3/14	11:23 AM	3	220D I	C186	5.0	A	D? slope 1:0.5	N	A: 6,16 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	D'view Flat	
5/14	12:00	3	220D 2	C196	18.1 1.0-5.0	A	U	Y	A: 13,11,16 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	PHOTO FIELD VERIFIED	
5/14	12:08	3	220D 3	C196	1.0	A	U	N	A: 13,11 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18		
5/14	12:12	3	220D 4	C196	1.6 6.0	A	U	N	A: 11,6 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18		
5/14	1:31	3	220D 5	C190	1.5 18.0	A	U	N	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	8650 + 45' NORTH 82.5	
5/14	1:32	3	220D 6	C190	1.5 18.0	A	U	N	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18	OFF SET 18' NORTH	
5/15	11:01	3	220D 7		3.0	A	D	N	A: 13 D: 10	B: 6,11,12 E: 12	C: 8,11,12 F: 16,18		

HBG OHWM Field Data Sheet (Arid West)

HALLORAN SPRING - HALLORAN WASH

IGB Team # *DP, Rye* Project Name: *DesertXpress*

HBG Sub-Basin # (1-41) *22*

HUC12 # *180902082402*

Drainage Data

Date M/D/Y	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHWM Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Comments
5/15/10	1:00	3	22010		3'	A	D	N	A: 6,13 D: 10	B: 6,12 E: 12	C: 8,11,12 F: 16,18	
5/15/10	12:52	3	22019	C187	1.5'	A	D		A: 6,13 D: 10	B: 6,12 E: 12	C: 8,11,12 F: 16,18	Formerly TCE9-1
5/15/10	1:02	3	22010	C187	1'	A	D		A: 6,13 D: 10	B: 6,12 E: 12	C: 8,11,12 F: 16,18	Formerly 712Mou-1 Fed by culvert
9/1/10	1:00	5	22010		1.0'	A	D	Y	A: 5,10,11,12,13 D: 3	B: 5,10,11,12 E: 5,10	C: 5,10,11,12 F: 18	DRP
9/1/10	1:02	5	22012		0.6'	A	D	Y	A: 5,10,11,12,13 D: 3	B: 5,10,11,12 E: 5,10	C: 5,10,11,12 F: 18	Spec. Draining
9/1/10	1:04	5	22013		0.6'	A	D	Y	A: 5,10,11,12,13 D: 3	B: 5,10,11,12 E: 5,10	C: 5,10,11,12 F: 18	Spec. Draining
9/1/10	1:03	5	22014		1.0'	A	D	Y	A: 5,10,11,12,13 D: 3	B: 5,10,11,12 E: 5,10	C: 5,10,11,12 F: 18	Spec. Draining

HBG OHWM Field Data Sheet (Arid West)

HGB Team # <i>647A</i>		Project Name: <i>DesertXpress</i>		HUC 12 # <i>180901022402</i>								
HGB Sub-Basin # (1 - 41) <i>22</i>		Drainage Data				Comments						
Date (M / D / Y)	Time (24-Hour)	GPS Unit #	Sample Point #	Map Sheet Ref #	OHW Width	Active (A) or Inactive (I) Channel	Up (U) / or Down (D) Slope from Road	Photo (Y/N)	Below OHWM	At OHWM	Above OHWM	Use note pages at back of notebook for comments. Put comment number in block below.
<i>9-1-10</i>	<i>8:25</i>	<i>S</i>	<i>22206</i>		<i>20</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>SAME Drainage Data AS 22 D11</i>
<i>10-12-10</i>	<i>-</i>	<i>S</i>	<i>22016</i>		<i>0.5</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>SAME Drainage Data AS 22 D11</i>
<i>10-12-10</i>	<i>-</i>	<i>S</i>	<i>22017</i>		<i>0.5</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>SAME Drainage Data AS 22 D11</i>
<i>10-12-10</i>	<i>-</i>	<i>S</i>	<i>22018</i>		<i>-</i>	<i>A</i>	<i>D</i>	<i>Y</i>	<i>A:</i>	<i>B:</i>		<i>SAME Drainage Data AS 22 D11</i>
									<i>A:</i>	<i>B:</i>		
									<i>D:</i>	<i>E:</i>		
									<i>A:</i>	<i>B:</i>		
									<i>D:</i>	<i>E:</i>		
									<i>A:</i>	<i>B:</i>		
									<i>D:</i>	<i>E:</i>		

ICF Jones & Stokes

**Wetland Determination Data Forms –
Arid West Region**

For DesertXpress

HUC 12 Watershed
Halloran Spring-Halloran Wash

HBG Watershed ID # 22

Within Mojave Watershed
(HUC 18090208)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 52-1
 Investigator(s): A. Durkhan, M. Widdowson, J. Winkelt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: N 116.058346 Long: N 35.273862 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:		OHWM 6 ft wide 0.5 ft high 4:1 slope discrete	
		100 Facing S 101 " N	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia acronia</u> sp.	<u>2</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Ambrosia dumosa</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>4</u>				UPL species <u>17</u> x 5 = <u>85</u>
Herb Stratum				Column Totals: <u>17</u> (A) <u>85</u> (B)
1. <u>Brassica tournefortii</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Erodium cicutarium</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
3. <u>Eragrostis sp.</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>13</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				___ Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>87</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Sampling Point: 52-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/3						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F1B)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >18
 Saturation Present? Yes _____ No Depth (inches): >18
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM: cl, ss
Substrate: sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 52-2
 Investigator(s): A. D. Schubert, M. Middleton, J. Wubolt Section, Township, Range: _____
 Landform (hill/slope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: N 35 26 16.948 Long: W 116 06 85.18 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Baker's Inn Ditch</u>	<u>CHWM: 18 ft wide</u> <u>1 ft ht</u> <u>2:1 slope</u> <u>discrete</u>
	<u>102 Facing N(W)</u> <u>103 Facing S(E)</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
<u>Sapling/Shrub Stratum</u>				OBL species _____	x 1 = _____
1. <u>Tamaraix ramosissima</u>	<u>8</u>	<u>Y</u>	<u>FAC</u>	FACW species _____	x 2 = _____
2. _____	_____	_____	_____	FAC species <u>8</u>	x 3 = <u>24</u>
3. _____	_____	_____	_____	FACU species _____	x 4 = _____
4. _____	_____	_____	_____	UPL species <u>20</u>	x 5 = <u>100</u>
5. _____	_____	_____	_____	Column Totals: <u>28</u> (A)	<u>124</u> (B)
Total Cover: <u>8</u>				Prevalence Index = B/A = <u>4.42</u>	
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators:	
1. <u>Bromus rubens</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
2. <u>Hordeum murinum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Lepidium cf. virginicum</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	___	
6. _____	_____	_____	_____	___	
7. _____	_____	_____	_____	___	
8. _____	_____	_____	_____	___	
20% threshold = 6% Total Cover: <u>30</u>				¹ Indicators of hydric soil and wetland hydrology must be present.	
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: _____					
% Bare Ground in Herb Stratum <u>70</u> % Cover of Biotic Crust <u>0</u>					

Remarks: _____

Sampling Point: 52-2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR4/3	100					loamy sand	Moist below 5"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F1B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >18

Saturation Present? Yes _____ No Depth (inches): >18

(includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks: Concrete box culvert

OHWM Indicators: CS, PC, SS,
Substrate: sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/12/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 53-1
 Investigator(s): A. Durbin, M. Widdowson, J. Winbush Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D ~~Lat: W 116.041344~~ Long: N 35.224043 Datum: NAD 83
 Soil Map Unit Name: PA NW1 classification: 1/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Pano Ditch, just E of Baker</u>		CHWM: <u>18 ft wide</u> <u>0.5 ft ht</u> <u>2:1</u>	<u>96 Facing SE</u> <u>97 Facing NW</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of: _____	Multiply by: _____
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. <u>Hymenoclea salsola</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	FACW species _____	x 2 = _____
2. <u>Encelia actoni</u> (small tree)	<u>10</u>	<u>Y</u>	<u>UPL</u>	FAC species _____	x 3 = _____
3. <u>Stephanomeria pauciflora</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	FACU species _____	x 4 = _____
4. _____	_____	_____	_____	UPL species <u>22</u>	x 5 = <u>110</u>
5. _____	_____	_____	_____	Column Totals: <u>22</u>	(A) <u>110</u> (B)
Total Cover: <u>14</u>				Prevalence Index = B/A = <u>5</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Cryptantha sp.</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
2. <u>Bolssica boissieriana</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Schizanthus sp.</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Total Cover: <u>8</u>					
Woody Vine Stratum					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: _____					
% Bare Ground in Herb Stratum <u>92</u>		% Cover of Biotic Crust <u>0</u>			

Remarks: _____

Sampling Point: 53-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 5/3						coarse sand	Moist below 5"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F1B)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): > 18
 Saturation Present? Yes _____ No Depth (inches): 7-18
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert under freeway

OHWM: cl, U, ss, pc
Substrate sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'd's Sampling Date: 3/12/83
 Applicant/Owner: Circle Point State: CA Sampling Point: 53-2
 Investigator(s): ADuehant, M.Widomson, J.Winkler Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: N 116.041656 Long: W 121.287188 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Berry Ditch</u>	<u>OHWM 5' wide 1' ht 3:1 slope</u> <u>98 Faang S 99 N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (AB)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: _____	_____	_____	_____	Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____ x 1 = _____	
1. <u>Encelia acroni</u> (<u>arbores</u>)	<u>5</u>	<u>Y</u>	<u>UPL</u>	FACW species _____ x 2 = _____	
2. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species <u>13</u> x 5 = <u>65</u>	
5. _____	_____	_____	_____	Column Totals: <u>13</u> (A) <u>65</u> (B)	
Total Cover: <u>10</u>				Prevalence Index = B/A = <u>5</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Cryptantha sp</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
2. <u>Pectocarya sp.</u>	<u><1</u>	<u>N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Total Cover: <u>3</u>					
Woody Vine Stratum					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: _____					
% Bare Ground in Herb Stratum <u>97</u>	% Cover of Biotic Crust <u>0</u>				
Remarks:					

Sampling Point: 53-2

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/3	100					loamy sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No _____ Depth (inches): > 18
 Saturation Present? Yes _____ No _____ Depth (inches): > 18
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert under freeway

OHWM Indicators: cl, pc, ss, cs
Substrate sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Box City/County: San Bernardino Sampling Date: 3/16/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 54-1
 Investigator(s): J. Holsom, J. Windholt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): 2%
 Subregion (LRR): D Lat: 33.98376° Long: -116.34459° Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A zone 11
 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 _____, 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHUM</u> <u>w-12'</u> <u>Photos: 8944 - W</u> <u>w-1'</u> <u>h-1'</u> <u>8945 - E</u> <u>s-3-1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (AB)
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia frutescens</u>	<u>5</u>	<u>Y NL UPL</u>	_____	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea salsola</u>	<u>3</u>	<u>Y NL UPL</u>	_____	OBL species _____ x 1 = _____
3. <u>Larrea tridentata</u>	<u>2</u>	<u>Y NL UPL</u>	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>10</u>				UPL species <u>12</u> x 5 = <u>60</u>
Herb Stratum				Column Totals: <u>12</u> (A) <u>60</u> (B)
1. <u>Comissonia brevipes</u>	<u>1</u>	<u>Y NL UPL</u>	_____	Prevalence Index = B/A = <u>5</u>
2. <u>Phytolacca obovata</u>	<u>1</u>	<u>Y NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	<input type="checkbox"/> Dominance Test is >50%
2. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
Total Cover: <u>0</u>				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks:				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10 YR 4/2						gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F1B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks:

OHWM: dissected/confined, CL, S, CS, F106-649, SS, SL, PL

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-1
 Investigator(s): A. Durheim, M. W. Adorson, J. Wimbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley F1061 Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: N-115.525449 Long: N 35.360706 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;"> OHWM <u>8</u> ft Width _____ ft Height <u>0.5</u> ft Length _____ ft Side Slope <u>2:1</u> </td> <td style="width:50%; padding: 2px;"> Photos (with description) <u>65</u> Facing <u>NE</u> <u>66</u> " <u>SW</u> </td> </tr> </table>	OHWM <u>8</u> ft Width _____ ft Height <u>0.5</u> ft Length _____ ft Side Slope <u>2:1</u>	Photos (with description) <u>65</u> Facing <u>NE</u> <u>66</u> " <u>SW</u>
OHWM <u>8</u> ft Width _____ ft Height <u>0.5</u> ft Length _____ ft Side Slope <u>2:1</u>	Photos (with description) <u>65</u> Facing <u>NE</u> <u>66</u> " <u>SW</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
Total Cover: _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>3</u> x 5 = <u>15</u> Column Totals: <u>3</u> (A) <u>15</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____				
Herb Stratum				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Carrissornia sp (white)</u>	<u>2</u>	<u>Y</u>	<u>NL/UPL</u>	
2. <u>Salvia columbiana</u>	<u>1</u>	<u>Y</u>	<u>NL/UPL</u>	
3. <u>Echscholzia minutiflora</u>	<u>1</u>	<u>Y</u>	<u>NL/UPL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>4</u>				
Woody Vine Stratum				<input type="checkbox"/> Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: Flows into excavated ditch parallel to freeway
Unvegetated - < 5% cover
 F-1.6-650
 Arid West - Version 11-1-2006

Sampling Point: 56-1

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-15	10YR 4/2	100					gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>³Indicators of hydrophytic vegetation and wetland hydrology must be present.</p>

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Granite - derived

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Silt Crust (B11) <input type="checkbox"/> Bloitic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >15

Saturation Present? Yes _____ No Depth (inches): >15

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators (use abbreviations): PL, F9.6-6515, SC
 Dominant lithological substrate composition (use abbreviations): gravel, sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/11/08
 Applicant/Owner: Crescent Point State: CA Sampling Point: 56-2
 Investigator(s): A. Durbin, M. W. Johnson, J. Winkler Section, Township, Range: CONCRETE
 Landform (hillslope, terrace, etc.): Vally Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D tab 12 -115.925970 long N 35.360414 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 200511

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM 3 ft wide 67 Facing S 10.5 ft ht 68 " N bank slope 2:1

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Shrub/Strawb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>None</u>	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>4</u> x 5 = <u>20</u>
				Column Totals: <u>4</u> (A) <u>20</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Commissoria (white)</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Erigeron inflatus</u>	<u><1</u>	<u>N</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Plantago ovata</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>4</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks: Unvegetated - < 5% cover

SOIL

Sampling Point: 56-2

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-14</u>	<u>10YR4/2</u>	<u>100</u>					<u>gravel</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)		Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	--	---	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Bloitic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)		Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): None

Water Table Present? Yes _____ No Depth (inches): >14

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >14

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators - SC

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: SB-3
 Investigator(s): A. Drohan, M. Widdowson, J. Winbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D ~~Lat: 33.28156~~ Lat: 33.259248 Long: N 35.259248 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: U/A 204E11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM width 6' 69 Facing S</u> <u>ht 1' 70 Facing N</u> <u>slope 1:1</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia actonii</u>	<u>1</u>	<u>N</u>	<u>N/UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>1</u>				UPL species <u>4</u> x 5 = <u>20</u>
Herb Stratum				Column Totals: <u>4</u> (A) <u>20</u> (B)
1. <u>Carricksonia (white fl)</u>	<u>1</u>	<u>N</u>	<u>N/UPL</u>	Prevalence Index = B/A = <u>5</u>
2. <u>Chaenactis sp. (no fl)</u>	<u>2</u>	<u>Y</u>	<u>N/UPL</u>	
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
4. _____	_____	_____	_____	___ Dominance Test is >50%
5. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
6. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____	_____	_____	_____	
Total Cover: <u>3</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Unvegetated - <5% cover

SOIL

Sampling Point: SB-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR4/2	100					gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

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

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >14
 Saturation Present? Yes _____ No Depth (inches): >14
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Tied to same parallel ditch. Confined flow.

DHWM: SC, S

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'd's Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-4+5
 Investigator(s): A. Durbin, M. Widdowson, J. Wimbush Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: N 115.925764 Long: W 35.358498 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OHWM 8 ft wide 71 56-4 Facing S</u> <u>0.5' ht 72 56-4 u N</u> <u>2:1 slope 73 56-5 u N</u> <u>74 56-5 u S</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Sesuvia armata</u>	<u>2</u>	<u>Y NL UPL</u>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>5</u> (A) <u>25</u> (B) Prevalence Index = B/A = <u>5</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Herb Stratum				
1. <u>Cryptantha sp. (No fr)</u>	<u>2</u>	<u>Y NL UPL</u>	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Achillea millefolium</u>	<u><1</u>	<u>N NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u><3</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>97</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: Unvegetated - <5% cover

SOIL

Sampling Point: 56-4-5

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 4/2	100					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) 	<p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (Inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (any one indicator is sufficient)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks) 	<p><u>Secondary Indicators (2 or more required)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
--	--

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>none</u></p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>> 14</u></p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>> 14</u></p> <p>(Includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>
--	--

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

Remarks: Trig. to parallel ditch - same as previous 3 pts

@HWM: M, S, SC, PC, SS, 1/16-657

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-6
 Investigator(s): A. DuBois, M. Wilkerson, J. Winkler Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Twp: 115.931204 Long: N 35.351712 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:		OHWM 20 wide 8 ht 1:1 slope 75 Facing S (down) 76 Facing E (up)	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Hymenoclea Salsola</u>	<u>2</u>	<u>Y-NL/UPL</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Encelia sp.</u>	<u>1</u>	<u>N-L/UPL</u>		OBL species _____ x 1 = _____
3. _____	_____	_____		FACW species _____ x 2 = _____
4. _____	_____	_____		FAC species _____ x 3 = _____
5. _____	_____	_____		FACU species _____ x 4 = _____
Total Cover: <u>3</u>				UPL species <u>5</u> x 5 = <u>25</u>
Herb Stratum				Column Totals: <u>5</u> (A) <u>25</u> (B)
1. <u>Erodium cicutarium</u>	<u><1</u>	<u>N-NL/UPL</u>		Prevalence Index = B/A = <u>5</u>
2. <u>Cryptantha sp.</u>	<u><1</u>	<u>N-NL/UPL</u>		
3. _____	_____	_____		
4. _____	_____	_____		
5. _____	_____	_____		
6. _____	_____	_____		
7. _____	_____	_____		
8. _____	_____	_____		
Total Cover: <u><2</u>				
Woody Vine Stratum				
1. _____	_____	_____		
2. _____	_____	_____		
Total Cover: _____				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Unvegetated - <5% cover

Sampling Point: 56-6

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
16	10YR4/2	100					gravel, sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

Indicators for Problematic Hydric Soils³:

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Blotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>216</u>	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>216</u>	

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

Remarks: Excavated ditch that captures flow from blue line + other drainages + is parallel to free way. Crosses freeway just downstream of data pit thru concrete box culvert.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-7 + 8
 Investigator(s): A. D. ... M. ... J. ... Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): D Lat: -115.951739 Long: 35.556300 Datum: UND 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM - 4' wide 77 Facing S 56-7 1' ht 78 " N 56-7 2:1 bank 80 " S 56-8 81 " N 56-8

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Hymenoclea salsola</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Adiantum tridentatum</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>4</u>				UPL species <u>9</u> x 5 = <u>45</u>
				Column Totals: <u>9</u> (A) <u>45</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Cryptantha sp.</u>	<u>3</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Plantago ovata</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Brassica tournefortii</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>5</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>95</u>				
% Cover of Biotic Crust <u>0</u>				
Remarks:				

Sampling Point: 56-7+8

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR4/2	150						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 14

Saturation Present? Yes _____ No Depth (inches): > 14

Wetland Hydrology Present? Yes _____ No

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

Remarks:
 Pipe Culverts under Freeway, just downstream from concrete box 566
 (Both drainages have pipe culverts)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/11/08
 Applicant/Owner: Cocah Point State: CA Sampling Point: 56-9
 Investigator(s): A. Duchant, M. Wilson, J. W. ... Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley, F/W Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat. W -115.932837 Long: N 35.395822 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWM 5 ft wide braided 0.5 ft Lt 3:1 slope</u>	<u>82 Facing S</u> <u>83 Facing N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. <u>Ambrosia dumosa</u>	<u>15</u>	<u>Y</u>	<u>NL UPL</u>	FACW species _____	x 2 = _____
2. <u>Hymenoclea salsola</u>	<u>10</u>	<u>Y</u>	<u>NL UPL</u>	FAC species _____	x 3 = _____
3. <u>Larrea tridentata</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	FACU species _____	x 4 = _____
4. _____				UPL species <u>33</u>	x 5 = <u>165</u>
5. _____				Column Totals: <u>33</u>	(A) <u>165</u> (B)
Total Cover: <u>30</u>				Prevalence Index = B/A = <u>5</u>	
Herb Stratum				Hydrophytic Vegetation indicators:	
1. <u>Cryptantha sp.</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	___ Dominance Test is >50%	
2. <u>Plantago ovata</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Chorizanthe sp.</u>	<u>1</u>	<u>N</u>	<u>NL UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____					
8. _____					
Total Cover: <u>3</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____					
% Bare Ground in Herb Stratum <u>97</u> % Cover of Biotic Crust <u>0</u>					

Remarks: _____

F-1.6-662

Sampling Point: 56-9

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR5/3						Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F1B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): none

Water Table Present? Yes _____ No _____ Depth (inches): >14

Saturation Present? Yes _____ No _____ Depth (inches): >14

(Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Branded channel

OHWM indicators, ss, cl, s, sc

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-10
 Investigator(s): A. Durheim, M. Walderson, J. Winkler Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): _____ Lat: N 115.93444 Long: N 35.35483 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	<u>OHWM 30' wide 84 Facing S 0.5' ht 85 " N Slope: 2:1</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (AB)
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Larrea tridentata</u>	<u>2</u>	<u>Y NL UPL</u>		
2. <u>Hymenoclea salsola</u>	<u>1</u>	<u>Y NL UPL</u>		
3. <u>Senna armata</u>	<u>1</u>	<u>Y NL UPL</u>		
Total Cover: <u>4</u>				
Herb Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. <u>Eriogonum sp. (?trichopes)</u>	<u>2</u>	<u>Y NL UPL</u>		
2. <u>Cryptantha sp.?</u>	<u>2</u>	<u>Y NL UPL</u>		
3. _____				
Total Cover: <u>4</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>96</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-11
 Investigator(s): Andrew M. Widdowen, J. W. Webb Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): _____
 Subregion (LRR): 2 Lat: N -115.936193 Long: N 35.353592 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>OTW 10' wide</u> <u>Sheet flow 0.5' wide</u> <u>2:1 bank.</u>	
<u>86 Facing S</u> <u>87 Facing N</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Hymenoclea Salsola</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>18</u> x 5 = <u>90</u> Column Totals: <u>18</u> (A) <u>90</u> (B) Prevalence Index = B/A = <u>5</u>
2. <u>Eriodia farinosa</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
3. <u>Larrea tridentata</u>	<u>5</u>	<u>Y</u>	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>15</u>				
Herb Stratum				
1. <u>Chaenactis fremontii</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Cryptantha sp.</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>3</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>97</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

Sampling Point: 56-11

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-18	10YR4/2	100					Sand/gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

Indicators for Problematic Hydric Soils³:

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >18

Saturation Present? Yes _____ No Depth (inches): >18

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert under freeway - receives flow from drainage and parallel ditch

Other Indicators SS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/11/09
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-12
 Investigator(s): A. Durheim, M. Widdowson, J. W. White Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W -115.936789 Long: N 35.353361 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:			OHWM 6 feet wide 3:1 slope 88 Facing S 89 Facing W

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. <u>AMBROSIA dumosa</u>	<u>5</u>	<u>Y M UPL</u>		FACW species _____	x 2 = _____
2. _____				FAC species _____	x 3 = _____
3. _____				FACU species _____	x 4 = _____
4. _____				UPL species <u>8</u>	x 5 = <u>40</u>
5. _____				Column Totals: <u>8</u> (A)	<u>40</u> (B)
Total Cover: <u>5</u>				Prevalence Index = B/A = _____	
Herb Stratum				Hydrophytic Vegetation indicators:	
1. <u>Plantago ovata</u>	<u>2</u>	<u>Y M UPL</u>		___ Dominance Test is >50%	
2. <u>Crotalaria sp.</u>	<u>1</u>	<u>Y M UPL</u>		___ Prevalence Index is ≤3.0 ¹	
3. <u>Chorizanthe rigida</u>	<u>2</u>	<u>N M UPL</u>		___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____					
8. _____					
Total Cover: <u>3</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____					
% Bare Ground in Herb Stratum <u>97</u> % Cover of Biotic Crust <u>0</u>					

Remarks:

F-1.6-668

Sampling Point: 56-12

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR4/2	100					gravel, sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | |
|--|--|
| <u>Primary Indicators (any one indicator is sufficient)</u> | <u>Secondary indicators (2 or more required)</u> |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Biotic Crust (B12) | |
| <input type="checkbox"/> Aquatic Invertebrates (B13) | |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 16

Saturation Present? Yes _____ No Depth (inches): > 16

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:
Metal pipe culvert - mostly blocked by sands

D.H.M.1 d. s. U. ss

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bend's Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-13
 Investigator(s): A. D. Dinschardt, M. Widdowson, J. Winbolt Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: W -115A38125 Long: N 35.352263 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	DHWM: 2' wide discrete 90 Facing S 0.5' ht 91 " N 3:1 slope

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Ambrosia dumosa</u>	<u>15</u>	<u>Y N UPL</u>		Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>15</u>				UPL species <u>17</u> x 5 = <u>85</u>
Herb Stratum				Column Totals: <u>17</u> (A) <u>85</u> (B)
1. <u>Plantago ovata</u>	<u>2</u>	<u>Y N UPL</u>		Prevalence Index = B/A = <u>5</u>
2. <u>Chaenactis fremontii</u>	<u><1</u>	<u>N UPL</u>		
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				<input type="checkbox"/> Dominance Test is >50%
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

F-1.6-670

Sampling Point: 56-13

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR4/2	100					gravel + sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Blotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): > 18

Saturation Present? Yes _____ No Depth (inches): > 18

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

to HWM Indicators - SS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bernardino Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 56-14
 Investigator(s): A. Duran, M. Williams, J. Winters Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): _____
 Subregion (LRR): D Lat: N 115.939612 Long: W 35.351249 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	OHWM 7' wide confined 0.5 ft 2:1 s 92 Facing W 93 E

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = _____
1. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	FACW species	x 2 = _____
2. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>NL UPL</u>	FAC species	x 3 = _____
3. _____				FACU species	x 4 = _____
4. _____				UPL species	x 5 = <u>70</u>
5. _____				Column Totals:	<u>14</u> (A) <u>70</u> (B)
Total Cover: <u>10</u>				Prevalence Index = B/A = <u>5</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Cryptantha sp.</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Dominance Test is >50%	
2. <u>Chenactis fremontii</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____					
8. _____					
Total Cover: <u>4</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____					
% Bare Ground in Herb Stratum <u>96</u> % Cover of Biotic Crust <u>0</u>					

Remarks:

SOIL

Sampling Point: 56-14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10Y/2	10D					gravel-sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none
 Water Table Present? Yes _____ No Depth (inches): >18
 Saturation Present? Yes _____ No Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

Concrete box culvert under freeway - flow from parallel ditch plus natural erosion features

OHWM: SS, S

Substrate: sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'd's Sampling Date: 3/11/08
 Applicant/Owner: Creek Point State: CA Sampling Point: SB-15
 Investigator(s): A. Durcharat, M. Wilkinson, J. Winkler Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: W -115.940858 Long: N 35.350911 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (if no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>OHWA 3' (Sheet flow at culvert) discrete 0.5' ht 3:1 slope</u> <u>94 Facing SW</u> <u>95 Facing E</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Carrea Indentata</u>	<u>10</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Hymenoclea Salsola</u>	<u>10</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>20</u>				UPL species <u>24</u> x 5 = <u>120</u>
				Column Totals: <u>24</u> (A) <u>120</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Cryptantha sp</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>WDL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Composita sp</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>4</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>9.6</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: _____				

Sampling Point: 56-15

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10Y4/2	100					Sand-gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Blotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>none</u>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>14</u>
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>16</u>

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert, w/rip rap on east. Flow from parallel ditch with erosion feature - converge 100' to north/east

with in CS - Discrete.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: JXP City/County: San Bern Co Sampling Date: 3/11/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 57-1
 Investigator(s): A. D. W. ... M. W. ... J. W. ... Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D ~~Lat: N -115.921914~~ Long: N 35.362568 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	
Width <u>OHW</u> <u>25</u> ft Height _____ ft Length _____ ft Side _____ ft Slope <u>3:1</u>	Photos (with description) <u>62</u> Facing <u>S</u> (down) <u>63</u> " <u>N</u> (upstream) <u>64</u> The Pit.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Hymenoclea salsola</u>	<u>15</u>	<u>Y N L UPL</u>		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>26</u> x 5 = <u>130</u> Column Totals: <u>26</u> (A) <u>130</u> (B) Prevalence Index = B/A = <u>5</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>15</u>				
Herb Stratum				
1. <u>Cryptantha sp.</u>	<u>5</u>	<u>Y N L UPL</u>		Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Cochlospermum sp. 1 (like water)</u>	<u>2</u>	<u>N N L UPL</u>		
3. <u>Erodium cicutarium</u>	<u>2</u>	<u>N N L UPL</u>		
4. <u>Erophylum cf. ambrosioides</u>	<u>1</u>	<u>N N L UPL</u>		
5. <u>Eschscholzia minutiflora</u>	<u>1</u>	<u>N N L UPL</u>		
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>11</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>89</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: Wash has nice diversity of desert annuals.

SOIL

Sampling Point: 57-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 4/2	100					gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >14
 Saturation Present? Yes _____ No Depth (inches): >14
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators (use abbreviations): (F56-67) SC, PC, WI
 Primary tributary substrate composition (use abbreviations): gravelly sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bern Co Sampling Date: 3/9/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 58-1
 Investigator(s): A Durcharat, M Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W -115 884570 Long: N 381 376 995 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>						
Remarks: <u>See Hydrology</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">OHWM <u>2</u> ft</td> <td rowspan="5" style="width:70%;">Photos (with description) <u>23 Facing S</u> <u>24 Facing N</u></td> </tr> <tr> <td>Width <u>0.5</u> ft</td> </tr> <tr> <td>Height _____ ft</td> </tr> <tr> <td>Length _____ ft</td> </tr> <tr> <td>Side Slope <u>4:1</u></td> </tr> </table>	OHWM <u>2</u> ft	Photos (with description) <u>23 Facing S</u> <u>24 Facing N</u>	Width <u>0.5</u> ft	Height _____ ft	Length _____ ft	Side Slope <u>4:1</u>
OHWM <u>2</u> ft	Photos (with description) <u>23 Facing S</u> <u>24 Facing N</u>						
Width <u>0.5</u> ft							
Height _____ ft							
Length _____ ft							
Side Slope <u>4:1</u>							

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Tamox aphylla (Athe)</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: <u>10</u>				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Thamnosia montana</u>	<u>10</u>	<u>Y</u>	<u>MLUPL</u>	OBL species _____ x 1 = _____
2. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y</u>	<u>MLUPL</u>	FACW species <u>10</u> x 2 = <u>20</u>
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species <u>100</u> x 5 = <u>300</u>
Total Cover: <u>15</u>				Column Totals: <u>70</u> (A) <u>320</u> (B)
Herb Stratum				Prevalence Index = B/A = <u>4.57</u>
1. <u>Erodium cicutarium</u>	<u>25</u>	<u>Y</u>	<u>MLUPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Schismus sp</u>	<u>5</u>	<u>N</u>	<u>MLUPL</u>	
3. <u>Brassica tournefortii</u>	<u>15</u>	<u>Y</u>	<u>MLUPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>45</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>55</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: _____

F-1.6-678

Arid West – Version 11-1-2006

SOIL

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								gravel, sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: rock
Depth (inches): 1 inch

Hydric Soil Present? Yes No

Remarks:

Channel is decomposed granite
Shovel refusal at 1 inch

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes No Depth (inches): >1
 Saturation Present? Yes No Depth (inches): >1
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: Most of water is diverted into ditch that parallels the tortoise fence (on I 15 side) + channels water away from blue line drainages. Source of water is freeway runoff - no culvert.
 MHW Indicators (use abbreviations): None
 F-1.6-679

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern Co State: CA Sampling Date: 3/9/08
 Applicant/Owner: Circle Point Sampling Point: 58-2
 Investigator(s): A. Durcharat, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D ~~East~~ W -115.884094 Long: N 35.377125 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (if no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes Y No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>CDFG bank bank 4'</u>	
OHWM <u>3</u> ft Width _____ Height <u>0.5</u> ft Length _____ Side Slope <u>3:1</u>	Photos (with description) <u>25 Facing N (down)</u> <u>26 " S (up)</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>30</u> x 5 = <u>150</u> Column Totals: <u>30</u> (A) <u>150</u> (B) Prevalence Index = 8/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Thermopsis montana</u>	<u>5</u>	<u>Y NL UPL</u>	_____	
2. <u>Ambrosia dumosa</u>	<u>5</u>	<u>Y NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>10</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Brassica tournefortii</u>	<u>5</u>	<u>Y NL UPL</u>	_____	
2. <u>Crochium alcutanum</u>	<u>15</u>	<u>Y NL UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>20</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>80</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks: _____

F-1.6-680

Arid West - Version 11-1-2006

SOIL

Sampling Point: 58-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								gravel, sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Shovel refusal 1 inch. Decomposed granite

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none

Water Table Present? Yes _____ No Depth (inches): >1

Saturation Present? (Includes capillary fringe) Yes _____ No Depth (inches): >1

Wetland Hydrology Present? Yes _____ No

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

Remarks: Culvert under I15. Becomes deeply incised downstream of culvert

slab, silt, sand

OHWM Indicators (use abbreviations):

E-1.6-681

Primary tributary substrate composition (use abbreviations):

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bern'do Sampling Date: 3/9/07
 Applicant/Owner: Circle K/Bart State: CA Sampling Point: 58-3
 Investigator(s): A Durland, M Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley; Flow Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: W - 115.880467 Long: N 35.378678 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: 4/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>Data pt describes channel within ditch portion in 300' corridor</u> <u>CDFO - same</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> OHW M <u>65</u> ft Width _____ ft Height _____ ft Length _____ ft Side _____ Slope <u>2:1</u> </td> <td style="width:50%;"> Photos (with description) <u>28 Facing S</u> <u>29 Facing N</u> </td> </tr> </table>	OHW M <u>65</u> ft Width _____ ft Height _____ ft Length _____ ft Side _____ Slope <u>2:1</u>	Photos (with description) <u>28 Facing S</u> <u>29 Facing N</u>
OHW M <u>65</u> ft Width _____ ft Height _____ ft Length _____ ft Side _____ Slope <u>2:1</u>	Photos (with description) <u>28 Facing S</u> <u>29 Facing N</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
4. _____	_____	_____	_____	Total Cover: _____	
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. <u>Encelia parinosa</u>	<u>10</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Total % Cover of: _____	Multiply by: _____
2. <u>Chrysothamnus paniculatus</u>	<u>10</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	OBL species _____ x 1 = _____	
3. <u>(Encarnia p.)</u>	_____	_____	_____	FACW species _____ x 2 = _____	
4. _____	_____	_____	_____	FAC species _____ x 3 = _____	
5. _____	_____	_____	_____	FACU species _____ x 4 = _____	
Total Cover: <u>20</u>				UPL species <u>29</u> x 5 = <u>145</u>	
Herb Stratum				Column Totals: <u>29</u> (A) <u>145</u> (B)	
1. <u>Diarrhiza tornefortii</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Prevalence Index = B/A = <u>5</u>	
2. <u>Erodium cicutarium</u>	<u>5</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)	
3. <u>Erphyllum ambiguum</u>	<u>2</u>	<u>Y</u>	<u>NL</u> <u>UPL</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Total Cover: <u>9</u>					
Woody Vine Stratum					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Total Cover: _____					
% Bare Ground in Herb Stratum <u>91</u>		% Cover of Biotic Crust <u>0</u>			

Remarks: _____

F-1.6-682

Arid West - Version 11-1-2006

SOIL

Sampling Point: 58-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 7/3	100						gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Decomposed granite

HYDROLOGY

Wetland Hydrology Indicators:	Secondary indicators (2 or more required)
Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>none</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>>12</u> Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>>12</u> (Includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks: Ditch - excavated under I-15 to convey water under freeway

OHWM Indicators (use abbreviations): Sed soil, some, slab, drift-debris
 Primary tributary substrate composition (use abbreviations): Sandy gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Berdo Sampling Date: 3-10-08
 Applicant/Owner: Circle K State: CA Sampling Point: 58-4
 Investigator(s): A. Durchand, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: 35.861977 Long: 120.382147 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>CFG - 5 ft bank-to-bank</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> OHWM Width: <u>4</u> ft Height: <u>1</u> ft Length: _____ ft Side Slope: <u>1:1</u> </td> <td style="width:50%;"> Photos (with description) <u>30 Facing S (up)</u> <u>31 " NW</u> </td> </tr> </table>	OHWM Width: <u>4</u> ft Height: <u>1</u> ft Length: _____ ft Side Slope: <u>1:1</u>	Photos (with description) <u>30 Facing S (up)</u> <u>31 " NW</u>
OHWM Width: <u>4</u> ft Height: <u>1</u> ft Length: _____ ft Side Slope: <u>1:1</u>	Photos (with description) <u>30 Facing S (up)</u> <u>31 " NW</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>2</u> x 5 = <u>10</u>
Herb Stratum				Column Totals: <u>2</u> (A) <u>10</u> (B)
1. <u>Frodium acutarium</u>	<u>2</u>	<u>NONE</u>		Prevalence Index = B/A = <u>5</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>2</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 ¹
				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				___ Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>98</u> Total Cover: _____ % Cover of Biotic Crust <u>0</u>				

Remarks:
± No veg in channel.

Sampling Point: 58-4

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 4/4	100	none					Sand gravel - moist below 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >12

Saturation Present? Yes _____ No Depth (inches): >12

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators (use abbreviations): cl, S, TV, SS, SC, PC

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Desert Xpress City/County: San Bern Co Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 58-5
 Investigator(s): A Dworkin & M Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W-115.863204 Long: N 35.385342 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE II

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>* plus 36 ft secondary channel</u> <u>CDFG - 65 ft</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;"> OHWM <u>43 ft</u> Width _____ ft Height _____ ft Length _____ ft side slope <u>4:1</u> </td> <td style="width:50%; padding: 2px;"> Photos (with description) <u>34 Facing SE (up)</u> <u>35 " NW (down)</u> </td> </tr> </table>	OHWM <u>43 ft</u> Width _____ ft Height _____ ft Length _____ ft side slope <u>4:1</u>	Photos (with description) <u>34 Facing SE (up)</u> <u>35 " NW (down)</u>
OHWM <u>43 ft</u> Width _____ ft Height _____ ft Length _____ ft side slope <u>4:1</u>	Photos (with description) <u>34 Facing SE (up)</u> <u>35 " NW (down)</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Larrea tridentata</u>	<u>5</u>	<u>Y NL UPL</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Thamnosia montana</u>	<u>2</u>	<u>N NL UPL</u>		OBL species _____ x 1 = _____
3. <u>Chrysothamnus parryi</u>	<u>5</u>	<u>Y NL UPL</u>		FACW species _____ x 2 = _____
4. <u>Azorella occidentalis (one shrub)</u>	<u>1</u>	<u>N FACU</u>		FAC species _____ x 3 = _____
5. <u>Ephedra nevadensis</u>	<u>2</u>	<u>N NL UPL</u>		FACU species <u>1</u> x 4 = <u>4</u>
Total Cover: <u>15</u>				UPL species <u>16</u> x 5 = <u>80</u>
				Column Totals: <u>17</u> (A) <u>84</u> (B)
				Prevalence Index = B/A = <u>4.94</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y NL UPL</u>		___ Dominance Test is >50%
2. <u>Chaenactis fremontii</u>	<u>1</u>	<u>Y NL UPL</u>		___ Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>99</u>				
% Cover of Biotic Crust <u>0</u>				

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 4/4	100	None				Sand-gravel	Soil moist below 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (Inches): None

Water Table Present? Yes _____ No Depth (Inches): < 12

Saturation Present? Yes _____ No Depth (Inches): < 12
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Broad wash with some upland shrubs - braided channel with mostly sheet flow.

OHWM Indicators (use abbreviations): cl F-6-68 DS

Substrate composition (use abbreviations): gravel, sand

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Desert Xpress City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 58-6
 Investigator(s): A. Durcharst, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W - 119.849536 Long: N 35.387656 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>CDFG - 65 ft</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 5px;"> OHWM Width <u>65 ft</u> Height <u>0.5 ft</u> Length _____ ft Side slope <u>3:1</u> </td> <td style="width:50%; padding: 5px;"> Photos (with description) <u>36 Facing S</u> <u>37 " N</u> </td> </tr> </table>	OHWM Width <u>65 ft</u> Height <u>0.5 ft</u> Length _____ ft Side slope <u>3:1</u>	Photos (with description) <u>36 Facing S</u> <u>37 " N</u>
OHWM Width <u>65 ft</u> Height <u>0.5 ft</u> Length _____ ft Side slope <u>3:1</u>	Photos (with description) <u>36 Facing S</u> <u>37 " N</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>12</u> x 5 = <u>60</u> Column Totals: <u>12</u> (A) <u>60</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Chrysothamnus paniculatus</u>	<u>7</u>	<u>Y</u>	<u>UPL</u>	
2. <u>(black stem rabbit brush)</u>	_____	_____	_____	
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
Total Cover: <u>7</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Herb Stratum				
1. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Cryptantha sp. (no fr.)</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
3. <u>Suaeda columnaris (chid)</u>	<u>1</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Eriogonum sp. (seedlings)</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
5. _____	_____	_____	_____	% Bare Ground in Herb Stratum <u>95</u> % Cover of Biotic Crust <u>0</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>5</u>				Remarks:
Woody Vine Stratum				
1. _____	_____	_____	_____	F-1.6-688
2. _____	_____	_____	_____	
Total Cover: _____				Arid West - Version 11-1-2006

Sampling Point: 58-6

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-12	10YR 4/4	100					s, gr	sand, gravel moist below 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

Indicators for Problematic Hydric Soils¹:

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >12

Saturation Present? Yes _____ No Depth (inches): >12

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Large concrete box culvert under freeway

OHWM indicators (use abbreviations): cl, S, ss, sc

OHWM indicators (use abbreviations): Gravel, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern Co Sampling Date: 3/10/08
 Applicant/Owner: Cocke Point State: CA Sampling Point: 59-1
 Investigator(s): A Durcharat, M Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W -115.842577 Long: N 35.387777 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>At culvert - 32' OHWM width.</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;"> OHWM Width <u>32</u> ft Height _____ ft Length _____ ft Side Slope <u>1:1</u> </td> <td style="width:50%; padding: 2px;"> Photos (with description) <u>38 Facing N</u> <u>39 Facing S</u> </td> </tr> </table> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-top: 5px;"> <u>BOARD SAYS 58-7</u> </div>	OHWM Width <u>32</u> ft Height _____ ft Length _____ ft Side Slope <u>1:1</u>	Photos (with description) <u>38 Facing N</u> <u>39 Facing S</u>
OHWM Width <u>32</u> ft Height _____ ft Length _____ ft Side Slope <u>1:1</u>	Photos (with description) <u>38 Facing N</u> <u>39 Facing S</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Chrysothamnus paniculatus</u>	<u>15</u>	<u>Y</u>	<u>NL UPL</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: <u>15</u>				UPL species <u>19</u> x 5 = <u>95</u>
				Column Totals: <u>19</u> (A) <u>95</u> (B)
				Prevalence Index = B/A = <u>5</u>
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Bromus rubens</u>	<u>2</u>	<u>Y</u>	<u>NL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Bromus diandrus</u>	<u>2</u>	<u>Y</u>	<u>NL UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>6</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>94</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

F-1.6-690

Arid West - Version 11-1-2008

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/3	10D					Sand + gr.	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks: Moist below 8". Granitic-derived gravels + sand

HYDROLOGY

- Wetland Hydrology Indicators:
- | | | |
|--|--|--|
| Primary Indicators (any one indicator is sufficient) | | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): none
 Water Table Present? Yes _____ No Depth (inches): >18
 Saturation Present? Yes _____ No Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert under freeway. Tub to Hallowan Wash, which is within 300' corridor. Width of OHWM of Hallowan Wash bed = 106 ft.

OHWM Indicators (use abbreviations): A, S, SC
 Substrate characteristics or composition (use abbreviations): mixed sand

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Berdo Sampling Date: 59-2A+B
 Applicant/Owner: Circle Point State: CA Sampling Point: 3/10/09
 Investigator(s): A. Durcharat, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: W -115.837123 Long: N 35.391707 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> (A) (B)															
Remarks: <u>Halloran Wash</u> (A) = Main wash on N of levee - CDFG - 100 ft (B) = Secondary wash between freerand levees	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">OHWM</td> <td style="width:30%;">Photos (with description)</td> <td style="width:40%;"></td> </tr> <tr> <td>Width: <u>25</u> ft</td> <td><u>41 59-2B → W</u></td> <td><u>43 2A → E</u></td> </tr> <tr> <td>Height: <u>2.5</u> ft</td> <td><u>42 59-2B → E</u></td> <td><u>44 2A → W</u></td> </tr> <tr> <td>Length: _____ ft</td> <td></td> <td></td> </tr> <tr> <td>Side slope: <u>1:1</u> <u>3:1</u></td> <td></td> <td></td> </tr> </table>	OHWM	Photos (with description)		Width: <u>25</u> ft	<u>41 59-2B → W</u>	<u>43 2A → E</u>	Height: <u>2.5</u> ft	<u>42 59-2B → E</u>	<u>44 2A → W</u>	Length: _____ ft			Side slope: <u>1:1</u> <u>3:1</u>		
OHWM	Photos (with description)															
Width: <u>25</u> ft	<u>41 59-2B → W</u>	<u>43 2A → E</u>														
Height: <u>2.5</u> ft	<u>42 59-2B → E</u>	<u>44 2A → W</u>														
Length: _____ ft																
Side slope: <u>1:1</u> <u>3:1</u>																

VEGETATION NOTE: data point described 2° channel

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>Encelia farinosa (gray)</u>	<u>25</u>	<u>Y UPL</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Chrysothamnus paniculatus</u>	<u>20</u>	<u>Y UPL</u>		OBL species _____ x 1 = _____
3. <u>Lycium sp.</u>	<u>5</u>	<u>N UPL</u>		FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
Total Cover: <u>50</u>				UPL species <u>52</u> x 5 = <u>260</u>
Herb Stratum				Column Totals: <u>52</u> (A) <u>260</u> (B)
1. <u>Crotonium cicutarium</u>	<u>2</u>	<u>Y UPL</u>		Prevalence Index = B/A = <u>5</u>
2. <u>Lupinus concinnus</u>	<u><<1</u>	<u>N UPL</u>		
3. _____				Hydrophytic Vegetation Indicators:
4. _____				<input type="checkbox"/> Dominance Test is >50%
5. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
6. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____				
Total Cover: <u>2</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

F-1.6-692

Arid West Version 11.1.2009

Sampling Point: 59-2A+B

SOIL

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

B)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/3	100	none				Sand, gr	Moist at 6 inches

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >16

Saturation Present? Yes _____ No Depth (inches): >16

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Wash has been partially diverted by levee that parallels freeway wash - main flow (A) now on NORTH side of levee, with smaller flow (B) on S

OHWM Indicators (use abbreviations): A: ^{Ft 6-6931} SE, sh, ss B: SS, SC

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Birt State: CA Sampling Point: 59-3
 Investigator(s): A. Durwardt, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: 32-115.823279 Long: 118-35.395129 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>CDEG - 8 feet total</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%; padding: 2px;"> OTHWM <u>2</u> ft Width _____ Height <u>0.5</u> ft Length _____ Side _____ Slope <u>2:1</u> </td> <td style="width:70%; padding: 2px;"> Photos (with description) <u>45 - Facing S</u> <u>46 " N</u> </td> </tr> </table>	OTHWM <u>2</u> ft Width _____ Height <u>0.5</u> ft Length _____ Side _____ Slope <u>2:1</u>	Photos (with description) <u>45 - Facing S</u> <u>46 " N</u>
OTHWM <u>2</u> ft Width _____ Height <u>0.5</u> ft Length _____ Side _____ Slope <u>2:1</u>	Photos (with description) <u>45 - Facing S</u> <u>46 " N</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <u>None in channel</u>	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
Total Cover: _____				UPL species <u>1</u> x 5 = <u>5</u>
Herb Stratum				Column Totals: <u>1</u> (A) <u>5</u> (B)
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>N all UPL</u>	_____	Prevalence Index = B/A = <u>5</u>
2. <u>Amsinckia tessellata</u>	<u><1</u>	<u>N all UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>1</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 ¹
Total Cover: _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				___ Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks: <u>Unvegetated - <5% cover</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR4/3	100	None				Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

Indicators for Problematic Hydric Soils³:

- 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.

Restrictive Layer (if present):

Type: rock
Depth (inches): 2

Hydric Soil Present? Yes No

Remarks: Shovel refusal at 2 inches - granite bedrock

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes No Depth (inches): > 2
 Saturation Present? Yes No Depth (inches): > 2

Wetland Hydrology Present? Yes No

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

Remarks: Concrete box culvert under freeway. Trib. to Halloran Wash
Secondary channel is ± same - 3 ft wide x 0.5'

OHWM Indicators (use abbreviations): SE-1.6-605 tv, ss, ld
 Transition Indicators (use abbreviations): sand gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 59-4
 Investigator(s): A. Durhardt, M. Widdowson Section, Township, Range: _____
 Landform (hillislopa, terrace, etc.): Valley Floor Local relief (concave, convex, none): Convex Slope (%): _____
 Subregion (LRR): D Lat: W - 115.814166 Long: N 35.397363 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Halloran Wash - main wash</u> <u>72 feet - 3 braided channels</u> <u>CDFG - 150 feet</u>	
OHWM <u>72 ft</u> Width _____ Height <u>< 0.5 ft</u> Length _____ Side Slope <u>4:1</u>	Photos (with description) <u>48 Facing E</u> <u>49 Facing W</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>17</u> x 5 = <u>85</u> Column Totals: <u>17</u> (A) <u>85</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum				
1. <u>Lycium sp.</u>	<u>10</u>	<u>Y, M, UPL</u>	_____	
2. <u>Hymenoclea salsola</u>	<u>5</u>	<u>Y, M, UPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>15</u>				
Herb Stratum				
1. <u>Erodium cicutarium</u>	<u>2</u>	<u>Y, M, UPL</u>	_____	
2. <u>Bromus rubens</u>	<u>< 1</u>	<u>N NI</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>98</u>		% Cover of Biotic Crust <u>0</u>		

Remarks: _____

F-1.6-696

Arid West - Version 11-1-2006

SOIL

Sampling Point: 59-4

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-16	10YR 4/3	100				Sand & gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none

Water Table Present? Yes _____ No Depth (inches): >16

Saturation Present? Yes _____ No Depth (inches): >16

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Mostly sheet flow

OHWM Indicators (use abbreviations): Minimal S, SS

Primary tributary substrate composition (use abbreviations): Sand, gravel

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 59-5 & 6
 Investigator(s): A. Durward, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR): D Lat: N 115.814921 Long: N 35.397277 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>59-5 and 6 are identical in measurements & details.</u> <u>CDFG 4 feet</u>	
OHRM-3 Width _____ Ft Height <u>0.5</u> Ft Length _____ Ft Side Slope <u>2:1</u>	Photos (with description) <u>50 59-5 Facing S</u> <u>51 59-5 Facing W</u> <u>52 59-6 Facing S</u> <u>53 59-6 " N</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: _____				Prevalence index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>1</u> (A) <u>5</u> (B) Prevalence Index = B/A = <u>5</u>
Sapling/Shrub Stratum <u>None in channel</u>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Total Cover: <u>0</u>
Herb Stratum <u>Erodium cicutarium</u>				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0' _____ Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation' (Explain) 'Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	<u>1</u>	<u>N</u>	<u>NPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	Total Cover: <u>1</u>
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				

Remarks: Unvegetated - both have < 5% cover

Sampling Point: 59-546

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

- ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: rock
 Depth (inches): Surface

Hydric Soil Present? Yes No

Remarks: Bedrock channel - small pockets of gravels + sands

HYDROLOGY

- Wetland Hydrology Indicators:**
- | | |
|--|--|
| Primary Indicators (any one indicator is sufficient) | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Biotic Crust (B12) | |
| <input type="checkbox"/> Aquatic Invertebrates (B13) | |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

Surface Water Present? Yes No Depth (inches): None

Water Table Present? Yes No Depth (inches):

Saturation Present? Yes No Depth (inches):

Wetland Hydrology Present? Yes No

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

Remarks: Culvert under freeway - small wetland. Tie to Halloran Wash

RHWM Indicators (use abbreviations): SC, SS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'd Co Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 59-7
 Investigator(s): A Durbandt, M Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): CONCAVE Slope (%): _____
 Subregion (LRR): D Lat: 33.810016 Long: 117.398192 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>CDFG 15 feet</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%; padding: 2px;"> OHWM Width _____ 2 ft Height _____ 1 ft Length _____ ft Side Slope <u>2:1</u> </td> <td style="width:70%; padding: 2px;"> Photos (with description) <u>54 Facing S</u> <u>55 Facing N</u> </td> </tr> </table>	OHWM Width _____ 2 ft Height _____ 1 ft Length _____ ft Side Slope <u>2:1</u>	Photos (with description) <u>54 Facing S</u> <u>55 Facing N</u>
OHWM Width _____ 2 ft Height _____ 1 ft Length _____ ft Side Slope <u>2:1</u>	Photos (with description) <u>54 Facing S</u> <u>55 Facing N</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Hymenoclea salsola</u>	<u>15</u>	<u>Y N L U PL</u>		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>22</u> x 5 = <u>110</u> Column Totals: <u>22</u> (A) <u>110</u> (B) Prevalence Index = B/A = <u>5</u>
2. <u>Encelia farinosa (gran)</u>	<u>5</u>	<u>Y N L U PL</u>		
3. _____	_____	_____		
4. _____	_____	_____		
5. _____	_____	_____		
Total Cover: <u>20</u>				
Herb Stratum				
1. <u>Erodium cicutarium (mostly on bank)</u>	<u>2</u>	<u>Y N L U PL</u>		Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Trophobrycon ambiguum</u>	<u><<1</u>	<u>N N L U PL</u>		
3. _____	_____	_____		
4. _____	_____	_____		
5. _____	_____	_____		
6. _____	_____	_____		
7. _____	_____	_____		
8. _____	_____	_____		
Total Cover: <u>2</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>				
Remarks: _____				

SOIL

Sampling Point: 59-7

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 4/3	100	none				Sand, gravel	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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Field Observations:

Surface Water Present? Yes _____ No Depth (inches): None

Water Table Present? Yes _____ No Depth (inches): > 18

Saturation Present? Yes _____ No Depth (inches): > 18

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Concrete box culvert under freeway.

OHWM Indicators (use abbreviations): cl, s, ss, sc, ld

Primary tributary substrate composition (use abbreviations): sand, gravel

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 59-8
 Investigator(s): A. Durcharnt, M. Wickowski Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W - 115.806815 Long: N 35.348797 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A 20NS 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Kali Dutch</u> <u>CDFG - 30 feet</u>	
Width <u>OHWM 3 ft</u> Height <u>2.5 ft</u> Length <u>56 ft</u> Side Slope <u>2:1</u>	Photos (with description) <u>56 Facing N</u> <u>57 " S</u>

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Hymenoclea salsola</u>	<u>10</u>	<u>Y or WPL</u>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>16</u> x 5 = <u>80</u> Column Totals: <u>16</u> (A) <u>80</u> (B) Prevalence Index = B/A = <u>5</u>
2. <u>Chrysothamnus paniculatus</u>	<u>5</u>	<u>Y or WPL</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
Total Cover: <u>15</u>				
Herb Stratum				
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>Y or WPL</u>	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>1</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
Total Cover: _____				
% Bare Ground in Herb Stratum <u>99</u> % Cover of Biotic Crust <u>0</u>				

Remarks: _____

F-1.6-702

Sampling Point: 59-8

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/3	100	—	—	—	—	gravel + sand	Moist at 3" + below
3-16	10YR 4/4	100	—	—	—	—	gravelly sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | | |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)
<input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Vernal Pools (F9) | Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|---|--|

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

- | | | |
|---|--|--|
| Primary Indicators (any one indicator is sufficient)
<input type="checkbox"/> Surface Water (A1)
<input type="checkbox"/> High Water Table (A2)
<input type="checkbox"/> Saturation (A3)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)
<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)
<input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Bloitic Crust (B12)
<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Other (Explain in Remarks) | Secondary Indicators (2 or more required)
<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5) |
|---|--|--|

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): none
 Water Table Present? Yes _____ No Depth (inches): > 16
 Saturation Present? Yes _____ No Depth (inches): > 16
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks: Large concrete box culvert under freeway. Banks have been constructed/reinforced for up to 50 yards from freeway.

(soil abbreviations): cl, s, ss, sc, pc

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: DXP City/County: San Bern'do Sampling Date: 3/10/08
 Applicant/Owner: Circle Point State: CA Sampling Point: 60-1
 Investigator(s): A. Duchardt, M. Widdowson Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): D Lat: W -115.797450 Long: N 35.406901 Datum: NAD 83
 Soil Map Unit Name: N/A NWI classification: N/A ZONE 11

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>CDFG - 15 feet</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> OHWM 6 ft Width _____ ft Height _____ ft Length _____ ft Side Slope <u>3:1</u> </td> <td style="width:50%;"> Photos (with descriptions) <u>58 Facing S (down)</u> <u>59 " N (upstream)</u> </td> </tr> </table>	OHWM 6 ft Width _____ ft Height _____ ft Length _____ ft Side Slope <u>3:1</u>	Photos (with descriptions) <u>58 Facing S (down)</u> <u>59 " N (upstream)</u>
OHWM 6 ft Width _____ ft Height _____ ft Length _____ ft Side Slope <u>3:1</u>	Photos (with descriptions) <u>58 Facing S (down)</u> <u>59 " N (upstream)</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
4. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width:100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species <u>2</u></td> <td>x 5 = <u>10</u></td> </tr> <tr> <td>Column Totals: <u>2</u></td> <td>(A) <u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>5</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species <u>2</u>	x 5 = <u>10</u>	Column Totals: <u>2</u>	(A) <u>10</u> (B)	Prevalence Index = B/A = <u>5</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species <u>2</u>	x 5 = <u>10</u>																			
Column Totals: <u>2</u>	(A) <u>10</u> (B)																			
Prevalence Index = B/A = <u>5</u>																				
Total Cover: _____																				
Sapling/Shrub Stratum																				
1. <u>None</u>	_____	_____	_____	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Total Cover: _____																				
Herb Stratum																				
1. <u>Erodium cicutarium</u>	<u>1</u>	<u>N, UPL</u>	<u>N, UPL</u>	¹ Indicators of hydric soil and wetland hydrology must be present.																
2. <u>Dasycarpus sophia</u>	<u>1</u>	<u>N, UPL</u>	<u>N, UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Total Cover: <u>2</u>																				
Woody Vine Stratum																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																
2. _____	_____	_____	_____																	
Total Cover: _____																				
% Bare Ground in Herb Stratum <u>98</u> % Cover of Biotic Crust <u>0</u>																				

Remarks:
Unvegetated - <5% cover

F-1.6-704

Arid West - Version 11-1-2006

SOIL

Sampling Point: 60-1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 5/3	100	—	—	—	—	Sand, gr	Moist at 5 inches
3-6	10YR 4/3	100	—	—	—	—	—	Some dark material (from road likely)
6-8	10YR 4/3	100	—	—	—	—	—	dark material
8-9	10YR 4/3	100	—	—	—	—	—	—
9-14	10YR 4/3	100	—	—	—	—	—	—

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C) **NOT D**
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

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

- 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.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- 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)
- Biologic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- 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): none
 Water Table Present? Yes _____ No Depth (inches): >14
 Saturation Present? Yes _____ No Depth (inches): >14
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

OHWM Indicators (use abbreviations): A, B1, S6, PC
 Primary tributary substrate composition (use abbreviations): Sand, gravel

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWD) CA	REGION 8 (NWD) NV	STRATUM (H, S, T)
<i>Abronia villosa</i>	NL	= <i>A. v.</i> var. <i>aurita</i> = <i>A. v.</i> var. <i>villosa</i> = <i>Bastardiopsis eggersii</i>	DESERT SAND VERBENA	NL	NL	Herb
<i>Acacia gregii</i>	<i>Acacia gregii</i>	NA	CATCLAW ACACIA	FACU	FACU	Shrub
<i>Achnatherum speciosum</i>	NL	= <i>Stipa speciosa</i>	DESERT STIPA	NL	NL	Shrub
<i>Adenophyllum porophylloides</i>	NL	= <i>Dyssodia porophylloides</i>	SAN FELIPE DOGWEED	NL	NL	Shrub
<i>Allenrolfea occidentalis</i>	<i>Allenrolfea occidentalis</i>	NA	IODINE BUSH	FACW+	FACW	Shrub
<i>Ambrosia dumosa</i>	NL	= <i>Franseria dumosa</i>	BURROWEED	NL	NL	Shrub
<i>Ambrosia eriocentra</i>	NL	= <i>Franseria eriocentra</i>	RAGWEED	NL	NL	Shrub
<i>Amsinckia tessellata</i>	NL	= <i>A. conica</i> = <i>A. cuneata</i> = <i>A. mojavensis</i> = <i>A. purpusii</i> = <i>A. rostellata</i> = <i>A. setosissima</i>	FIDDLE-NECK	NL	NL	Herb

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<i>Amsinckia intermedia</i>	NL	NA	FIDDLE-NECK	NL	NL	Herb
<i>Aristida purpurea</i>	NL	= <i>A. p. var. fendleriana</i> = <i>A. p. var. longiseta</i> = <i>A. p. var. neallegi</i> = <i>A. p. var. parishii</i> = <i>A. p. var. purpurea</i> = <i>A. p. var. wrightii</i>	PURPLE THREE AWN	NL	NL	Herb
<i>Asclepias californica</i>	NL	= <i>A. c. ssp. greenei</i> = <i>A. c. ssp. californica</i>	CALIFORNIA MILKWEED	NL	NL	Herb
<i>Asclepias curassavica</i>	<i>Asclepias curassavica</i>	NA	SCARLET MILKWEED	FAC	NL	Herb
<i>Atriplex canescens</i>	<i>Atriplex canescens</i>	NA	FOUR-WINGED SALTBUSH	FACU	UPL	Shrub
<i>Atriplex hymenelytra</i>	NL	NA	MANY-FRUITED SALTBUSH	NL	NL	Shrub
<i>Atriplex polycarpa</i>	<i>Atriplex</i>	NA	MANY-FRUIT SALTBUSH	FACU	FACU	Shrub

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<i>Avena barbata</i>	<i>polycarpa</i>	= <i>A. hirsuta</i>	SLENDER WILD OAT	NL	NL	Herb
<i>Baccharis brachyphylla</i>	NL	NA	SHORT LEAVED BACCHARIS	NL	NL	Shrub
<i>Baccharis salicifolia</i>	<i>Baccharis glutinosa</i>	= <i>B. glutinosa</i> = <i>B. viminea</i> = <i>Molina salicifolia</i>	MULE FAT	FACW-	FACW	Shrub
<i>Baccharis sarothroides</i>	<i>Baccharis sarothroides</i>	NA	DESERT FALSE-WILLOW	FAC	NI	Shrub
<i>Baileya</i> spp.	NL	NA	DESERT MARIGOLD	NL	NL	Herb
<i>Bouteloua barbata</i>	NL	= <i>B. arenosa</i> = <i>Chondrosium barbata</i> = <i>C. exile</i> = <i>C. microstachyum</i> = <i>C. polystachyum</i> = <i>C. subscorpioides</i>	SIX WEEKS GRAMA	NL	NL	Herb
<i>Brassica tournefortii</i>	NL	NA	ASIAN MUSTARD	NL	NL	Herb

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<i>Bromus madritensis</i>	NL	= <i>Anisantha madritensis</i> = <i>A. matritensis</i> = <i>Bromus maritensis</i>	FOXTAIL CHESS	NL	NL	Herb
<i>Bromus rubens</i>	NL		RIPGUT BROME	NI	NI	Herb
<i>Bromus tectorum</i>	NL	= <i>Anisantha tectorum</i>	CHEAT GRASS	NL	NL	Herb
<i>Camissonia boothii</i>	NL	= <i>Oenothera decoritans</i>	BOOTH'S EVENING PRIMROSE	NL	NL	Herb
<i>Camissonia brevipes</i>	NL	= <i>Oenothera brevipes</i>	YELLOW CUPS	NL	NL	Herb
<i>Cercidium floridum</i>	NL	NA	BLUE PALO VERDE	NL	NL	Shrub
<i>Cercidium microphyllum</i>	NL	NA	FOOTHILLS PALO VERDE	NL	NL	Tree
<i>Chaenactis fremontii</i>	NL	NA	FREMONT PINCUSHION	NL	NL	Herb
<i>Chamaesyce albomarginata</i>	NL	= <i>Euphorbia albomarginata</i>	RATTLESNAKE WEED	NL	NL	Herb
<i>Chaenactis</i>	NL	= <i>C. c. var.</i>	PEBBLE PINCUSHION	NL	NL	Herb

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<i>carphoclinia</i>		<i>carphoclinia</i> =C. c. var. <i>peirsonii</i>				
<i>Chenopodium album</i>	<i>Chenopodium album</i>	NA	WHITE GOOSEFOOT	FAC	FACU	Herb
<i>Chilopsis linearis</i>	<i>Chilopsis linearis</i>	NA	DESERT WILLOW	FACW*	FAC	Tree
<i>Chorizanthe brevicornis</i>	NL	=C. b. var. <i>brevicornis</i> =C. b. var. <i>spatulata</i>	BRITTLE SPINEFLOWER	NL	NL	Herb
<i>Chorizanthe rigida</i>	NL	= <i>Acanthogonum rigidum</i>	SPINEY-HERB	NL	NL	Herb
<i>Chrysothamnus paniculatus</i>	NL	= <i>Ericameria paniculatus</i>	MOJAVE RABBITBRUSH	NL	NL	Shrub
<i>Coleogyne ramosissima</i>	NL	NA	BLACKBUSH	NL	NL	Shrub
<i>Cryptantha pterocarya</i>	NL	=C. p. var. <i>purpositii</i> =C. p. var. <i>cyclopetera</i> =C. p. var. <i>pterocarya</i>	WINGED NUT FORGET ME NOT	NL	NL	Herb
<i>Cylindropuntia</i>	NL	= <i>Opuntia acanthocarpa</i>	BUCKHORN CHOLLA	NL	NL	Shrub

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<i>acanthocarpa</i>						
<i>Cylindropuntia arbuscula</i> **	NL	Unknown	No info. available on this species. <i>C. arbuscula</i> may = typo	NL	NL	Shrub?
<i>Cynodon dactylon</i>	<i>Cynodon dactylon</i>	= <i>Capriola dactylon</i> = <i>C. aristigumis</i> = <i>Panicum dactylon</i>	BERMUDA GRASS	FAC	FAC	Herb
<i>Descurainia sophia</i>	NL	= <i>Sisymbrium Sophia</i>	HERB SOPHIA	NL	NL	Herb
<i>Encelia actoni</i>	NL	= <i>E. virginensis ssp. actoni</i>	ACTON ENCELIA	NL	NL	Shrub
<i>Encelia farinosa</i>	NL	NA	BRITTLE BUSH	NL	NL	Shrub
<i>Encelia frutescens</i>	NL	= <i>Simisia frutescens</i>	BUTTON BRITTLE BUSH	NL	NL	Shrub
<i>Encelia virginensis</i>	NL	= <i>Frutescens</i> var. <i>virginensis</i>	NO COMMON NAME	NL	NL	Shrub
<i>Ephedra nevadensis</i>	NL	NA	NEVADA EPHEDRA	NL	NL	Shrub
<i>Ephedra viridis</i>	NL	NA	MORMON TEA	NL	NL	Shrub
<i>Eriastrum densifolium</i>	NL	NA	SHRUBBY ERIASTRUM	NL	NL	Shrub

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<i>Ericameria cooperi</i>	NL	= <i>Haplopappus cooperi</i>	COOPER'S GOLDENBUSH	NL	NL	Shrub
<i>Ericameria laricifolia</i>	NL	= <i>Haplopappus laricifolia</i>	TURPENTINE BUSH	NL	NL	Shrub
<i>Ericameria nauseosa</i>	NL	= <i>E. n. ssp. consimilis</i> = <i>E. n. var. bernardina</i> = <i>E. n. var. ceruminosa</i> = <i>E. n. var. hololeuca</i> = <i>E. n. var. leioperma</i> = <i>E. n. var. oreophila</i> = <i>E. n. var. speciosa</i> = <i>E. n. var. washoensis</i> = <i>Chrysothamnus nauseosus</i>	RUBBER RABBITBRUSH	NL	NL	Shrub
<i>Ericameria paniculata</i>	NL	= <i>Chrysothamnus paniculatus</i>	MOJAVE RABBITBRUSH	NL	NL	Shrub

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<i>Ericameria pinifolia</i>	NL	= <i>E. ericoides</i> ssp. <i>pinifolia</i> = <i>Haplopappus pinifolius</i>	PINE BUSH	NL	NL	Shrub
<i>Eriogonum deflexum</i>	NL	NA	FLAT TOPPED BUCKWHEAT	NL	NL	Herb
<i>Eriogonum fasciculatum</i>	NL	= <i>E. d.</i> var. <i>baratum</i> = <i>E. d.</i> var. <i>deflexum</i> = <i>E. d.</i> var. <i>nevadense</i> = <i>E. d.</i> var. <i>rectum</i>	CALIFORNIA BUCKWHEAT	NL	NL	Shrub
<i>Eriogonum inflatum</i>	NL	= <i>E. glaucum</i> = <i>E. inflatum</i> var. <i>inflatum</i>	DESERT TRUMPET	NL	NL	Shrub
<i>Erioneuron pulchellum</i>	NL	= <i>Triodia pulchella</i> = <i>Dasyochloa pulchella</i>	FLUFF GRASS	NL	NL	Herb

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<i>Eriophyllum ambiguum</i> / <i>E. wallacei</i> [sic]	NL	= <i>E. ambiguum</i> var. <i>ambiguum</i> = <i>E. ambiguum</i> var. <i>paleaceum</i> = <i>Antherapeas wallacei</i> = <i>Eriophyllum wallacei</i> var. <i>rubellum</i> = <i>E. w.</i> var. <i>wallacei</i> = <i>E. w.</i> var. <i>calvescens</i> = <i>Eriophyllum cureum</i>	ANNUAL WOOLLY SUNFLOWER/WALLACE'S WOOLLY DAISY	NL	NL	Herb
<i>Erodium cicutarium</i>	NL	= <i>Erodium cicutarium</i> ssp. <i>cuticatum</i> = <i>E. cicutarium</i> ssp. <i>jacquinianum</i>	COASTAL HERON'S BILL	NL	NL	Herb
<i>Eschscholzia minutiflora</i>	NL	= <i>E. coville</i> = <i>E. minutiflora</i> ssp. <i>twisselmanii</i> = <i>E. minutiflora</i> var. <i>darwinensis</i>	PYGMY POPPY	NL	NL	Herb

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<i>Gilia latifolia</i>	NL	= <i>E. minuscula</i> NA	BROADLEAF GILLIA	NL	NL	Herb
<i>Gutierrezia sarothrae</i>	NL	NA	MATCHWEED	NL	NL	Shrub
<i>Hordeum moines</i>	NL	NA	BARLEY	NL	NL	Herb
<i>Hordeum murinum</i>	<i>Hordeum leporinum</i>	= <i>H. m. ssp. glaucum</i> = <i>H. m. ssp. leporinum</i> = <i>H. m. ssp. murinum</i>	MOUSE BARLEY	NI	NI	Herb
<i>Hymenoclea salsola</i>	NL	= <i>H. m. var. patula</i> = <i>H. m. var. pentalepsis</i> = <i>H. m. var. salsola</i>	CHEESE BUSH	NL	NL	Shrub
<i>Krameria parviflora</i>	NL	NA	RHATANY	NL	NL	Shrub
<i>Larrea tridentata</i>	NL	= <i>L. divaricata ssp. tridentata</i> = <i>L. divaricata</i> = <i>L. tridentata var. arenaria</i> = <i>L. tridentata var.</i>	CREOSOTE BUSH	NL	NL	Shrub

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWD) CA	REGION 8 (NWD) NV	STRATUM (H, S, T)
<i>Lepidium fremontii</i>	NL	<i>tridentata</i> = <i>L. fremontii</i> var. <i>fremontii</i> = <i>L. f.</i> var. <i>stipitatum</i>	DESERT ALYSSUM	NL	NL	Herb
<i>Lepidium latifolium</i>	<i>Lepidium latifolium</i>	NA	BROAD LEAFED PEPPER-GRASS	FACW	FAC	Herb
<i>Lepidium</i> spp.	<i>Lepidium</i> spp.	NA	PEPPER-GRASS	FAC	NO to FACW+ depending on species	Shrub
<i>Lepidium virginicum</i>	<i>Lepidium virginicum</i>	NA	POOR-MAN'S PEPPER-GRASS	FACU	FACU	Herb
<i>Lepidospartum squamatum</i>	Possibly <i>Baccharis sarothroides</i>	= <i>Lepidospartum squamatum</i> var. <i>palmeri</i> = <i>Lepidospartum squamatum</i> var. <i>squamatum</i> = <i>Baccharis</i>	SCALE BROOM	NL Or FAC	NL	Shrub

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
		<i>sarathroides</i> var. <i>pluricephala</i> = <i>Lepidospartum squamatum</i> var. <i>obtectum</i>				
<i>Leptochloa uninnervia</i>	<i>Leptochloa uninnervia</i>	NA	MEXICAN SPRANGLETOP	FACW	FACW	Herb
<i>Leymus triticoides</i>	<i>Elymus triticoides</i>	= <i>Elymus triticoides</i> = <i>E. condensatus</i> var. <i>triticoides</i> = <i>E. orcuttiamis</i> = <i>E. triticoides</i> var. <i>pubescens</i>	VALLEY WILD RYE	FAC+	FAC+	Herb
<i>Lupinus concinnus</i>	NL	= <i>L. c.</i> var. <i>pallidus</i> = <i>L. c.</i> var. <i>orcutti</i> = <i>L. c.</i> var. <i>optatus</i> = <i>L. c.</i> var. <i>concinus</i> = <i>L. c.</i> var. <i>agardhianus</i> = <i>L. c.</i> ssp. <i>orcuttii</i> = <i>L. c.</i> ssp. <i>optatus</i> = <i>L. pallidus</i> = <i>L. agardhianus</i>	ELEGANT LUPINE	NL	NL	Herb

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Lycium andersonii</i>	NL	= <i>L. a.</i> var. <i>andersonii</i> = <i>L. a.</i> var. <i>deserticola</i>	ANDERSON THORNBUSH	NL	NL	Shrub
<i>Lycium cooperi</i>	NL	NA	PEACH THORN	NL	NL	Shrub
<i>Lycium parishii</i>	NL	NONE	PARISH'S DESERT THORN	NL	NL	Shrub
<i>Malacothrix coulteri</i>	NL	= <i>Zollikoferia eluensis</i> = <i>M.</i> var. <i>cognate</i>	SNAKE'S HEAD	NL	NL	Herb
<i>Malacothrix glabrata</i>	NL	= <i>M. californica</i> var. <i>glabrata</i>	DESERT DANDELION	NL	NL	Herb
<i>Malva neglecta</i>	NL	NA	COMMON MALLOW	NL	NL	Herb
<i>Mentzelia</i> spp.	NL	NA	STICK LEAF	NL	NL	Herb
<i>Mimulus flemingii</i>		= <i>M. parviflorus</i>	FLEMING MONKEYFLOWER	FACU-	NL	Herb
<i>Mimulus fremontii</i>	<i>Mimulus glabratus</i>	= <i>M. subsecundus eucanus fremontii</i> = <i>Mimulus glabratus</i> ssp. <i>fremontii</i>	FREMONT'S MONKEYFLOWER	OBL	OBL	Herb

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Oenothera deltooides</i>	NL	= <i>O. d. ssp. cognate</i> = <i>O. d. ssp. deltooides</i> = <i>O. d. ssp. howellii</i> = <i>O. d. ssp. piperi</i> = <i>O. d. var. cineracea</i>	BIRDCAGE EVENING PRIMROSE	NL	NL	Herb
<i>Olea europea</i>	NL	NA	OLIVE TREE	NL	NL	Tree
<i>Opuntia basilaris</i>	NL	NA	BEAVERTAIL CACTUS	NL	NL	Shrub
<i>Parkinsonia aculeata</i>	<i>Parkinsonia aculeata</i>	NA	JERUSALEM -THORN OR PALO VERDE	FACW*	NI	Tree
<i>Pectocarya heterophylla [sic]</i> * = <i>P. heterocarpa</i>	NL	= <i>P. penicillata</i> var. <i>heterocarpa</i>	CHUCKWALLA COMBSEED	NL	NL	Herb
<i>Pectocarya platycarpa</i>	NL	= <i>P. gracilis</i> = <i>P. linearis</i>	NUTTED BROAD COMB	NL	NL	Herb
<i>Phacelia distans</i>	NL	= <i>P. cinera</i> = <i>P. scabrella</i> = <i>P. distans</i> var.	COMMON PHACELIA	NL	NL	Herb

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>Phacelia fremontii</i>	NL	= <i>P. hultii</i>	FREMONT'S PHACELIA	NL	NL	Herb
<i>Plantago ovata</i>	NL	NA	DESERT INDIAN WHEAT	NL	NL	Herb
<i>Pluchea sericea</i>	<i>Pluchea sericea</i>	NA	ARROW WEED	FACW	FACW	Shrub
<i>Polygonum monspeliensis</i>	<i>Polygonum monspeliensis</i>	NA	ANNUAL RABBIT-FOOT GRASS	FACW+	FACW+	Herb
<i>Populus fremontii</i>	<i>Populus fremontii</i>	—	FREMONT'S COTTONWOOD	FACW	FACW*	Tree
<i>Prosopis glandulosa</i>	<i>Prosopis juliflora</i>	= <i>P. glandulosa</i> var. <i>torreyana</i> = <i>P. juliflora</i> var. <i>torreyana</i> = <i>P. ordorata</i>	HONEY MESQUITE	FACU	NI	Shrub
<i>Puccinella lemmoni</i>	<i>Puccinella lemmoni</i>	NA	LEMON'S ALKALI GRASS	FAC	FACW*	Herb
<i>Rafinesquia neomexicana</i>	NL	NA	CALIFORNIA CHICORY	NL	NL	Herb
<i>Rumex hymenosepalus</i>	NL	NA	WILD RUBARB	NL	NL	Herb
<i>Salazaria</i>	NL	NA	BLADDERSAGE	NL	NL	Shrub

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALFLORA 2010)	COMMON NAME	REGION 0 (NWI) CA	REGION 8 (NWI) NV	STRATUM (H, S, T)
<i>mexicana</i>						
<i>Salix exigua</i>	<i>Salix exigua</i>	NL	SANDBAR WILLOW	OBL	OBL	Shrub
<i>Salix gooddingii</i>	<i>Salix gooddingii</i>	--	GOODDING WILLOW	OBL	FACW	Tree
<i>Salsola pestifer</i>	<i>Salsola pestifer</i>	NA	RUSSIAN THISTLE	FACU	FACU	Herb
<i>Salsola tragus</i> **	<i>Salsola kali</i> / <i>Salsola pestifer</i>	= <i>S. australis</i> = <i>S. iberica</i> = <i>S. kali</i> var. <i>tenuifoli</i> = <i>S. pestifer</i> = <i>S. kali</i> var. <i>tenuifolia</i> = <i>S. kali</i> var. <i>tragus</i> = <i>S. ruthenica</i>	RUSSIAN THISTLE	FACU*/ FACU	FACU/ FACU	Herb
<i>Salvia columbariae</i>	NL	= <i>S. c.</i> var. <i>columbariae</i> = <i>S. c.</i> var. <i>ziegleri</i>	CHIA	NL	NL	Herb
<i>Salvia dorrii</i>	NL	= <i>S. d.</i> var. <i>dorrii</i> = <i>S. d.</i> var. <i>incana</i> = <i>S. d.</i> var. <i>pilosa</i>	DESERT SAGE	NL	NL	Shrub
<i>Schismus arabicus</i>	NL	NA	MEDITERRANEAN GRASS	NL	NL	Herb
<i>Schismus barbatus</i>	NL	= <i>Festuca barbata</i> = <i>S. calycinus</i>	MEDITERRANEAN GRASS	NL	NL	Herb

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFLORA 2010)	COMMON NAME	REGION 0 (NWD) CA	REGION 8 (NWD) NV	STRATUM (H, S, T)
<i>Senna armata</i>	NL	= <i>Cassia armata</i>	DESERT SENNA, SPINY SENNA	NL	NL	Shrub
<i>Sisymbrium altissimum</i>	<i>Sisymbrium altissimum</i>	NA	TALL TUMBLE MUSTARD	FACU	FACU-	Herb
<i>Spharalcea ambigua</i>	NL	= <i>S. parvifolia</i>	APRICOT MALLOW	NL	NL	Shrub
<i>Stanleya pinnata</i>	NL	NA	DESERT PRINCE'S PLUME	NL	NL	Herb
<i>Stephanomeria exigua</i>	NL	NA	SMALL WIRELETTUCE	NL	NL	Herb
<i>Stephanomeria pauciflora</i>	NL	= <i>S. p.</i> var. <i>parishii</i> = <i>S. p.</i> var. <i>pauciflora</i> = <i>S. runcinata</i> var. <i>parishii</i> = <i>S. cinerea</i> = <i>S. lygoclesmoides</i> = <i>S. neomexicana</i> = <i>Lygodesmia pauciflora</i> = <i>Ptiloria pauciflora</i>	DESERT STRAW	NL	NL	Herb

LIST OF PLANT SPECIES ENCOUNTERED ALONG DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY AREA

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFLORA 2010)	COMMON NAME	REGION 0 (NWD) CA	REGION 8 (NWD) NV	STRATUM (H, S, T)
<i>Stephanomeria virgata</i>	NL	NA	NL	NL	NL	Herb
<i>Tamarix aphylla</i>	<i>Tamarix aphylla</i>	NA	ATHEL TAMARISK	FACW-	FACW	Tree
<i>Tamarix ramosissima</i>	<i>Tamarix ramosissima</i>	NA	SALT CEDAR	FAC	FACW	Shrub
<i>Thamnosma montana</i>	NL	NA	TURPENTINE BROOM	NL	NL	Shrub
<i>Triticum aestivum</i>	NL	= <i>T. hybernum</i> = <i>T. macha</i> = <i>T. sativum</i> = <i>T. sphaerococcum</i> = <i>T. vulgare</i>	COMMON WHEAT	NL	NL	Herb
<i>Typha angustifolia</i>	<i>Typha angustifolia</i>	NA	NARROW LEAF CATTAIL	OBL	OBL	Herb
<i>Ulmus pumila</i>	NL	NONE	SIBERIAN ELM	NL	NL	Tree
<i>Washingtonia filifera</i>	<i>Washingtonia filifera</i>	NA	CALIFORNIA FAN PALM	FACW	NO	Tree
<i>Yucca brevifolia</i>	NL	= <i>Y. jaegeriana</i>	JOSHUA TREE	NL	NL	Tree
<i>Yucca schidigera</i>	NL	= <i>Y. californica</i>	MOJAVE YUCCA	NL	NL	Shrub

**LIST OF PLANT SPECIES ENCOUNTERED ALONG
DRAINAGES WITHIN THE DESERT XPRESS PROJECT STUDY
AREA**

SCIENTIFIC NAME (AS LISTED IN JSA DATA SHEETS)	SCIENTIFIC NAME IF AVAILABLE IN NWI	SYNONYMY (SOURCE: CALIFORNIA 2010)	COMMON NAME	REGION (NWD) CA	REGION (NWD) NW	STRATUM (H.S., T)
		<i>cf. microcarpa</i> <i>cf. nuttalliana</i>				

* = J.S.A. probably made a typographical error for this species.

**Using JSA taxonomy (*S. tragus*) we determined that in 1988, when the wetland manual was produced, this species could have been either *S. kali* (FACU*) or *S. pestifer* (FACU) (Region O), or FACU for both in Region 8.

NI = Not Indicated.

NL = Not Listed in NWI 1988.

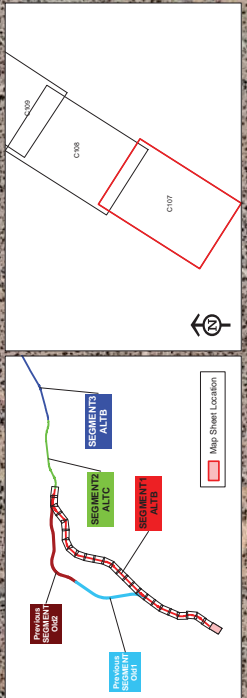
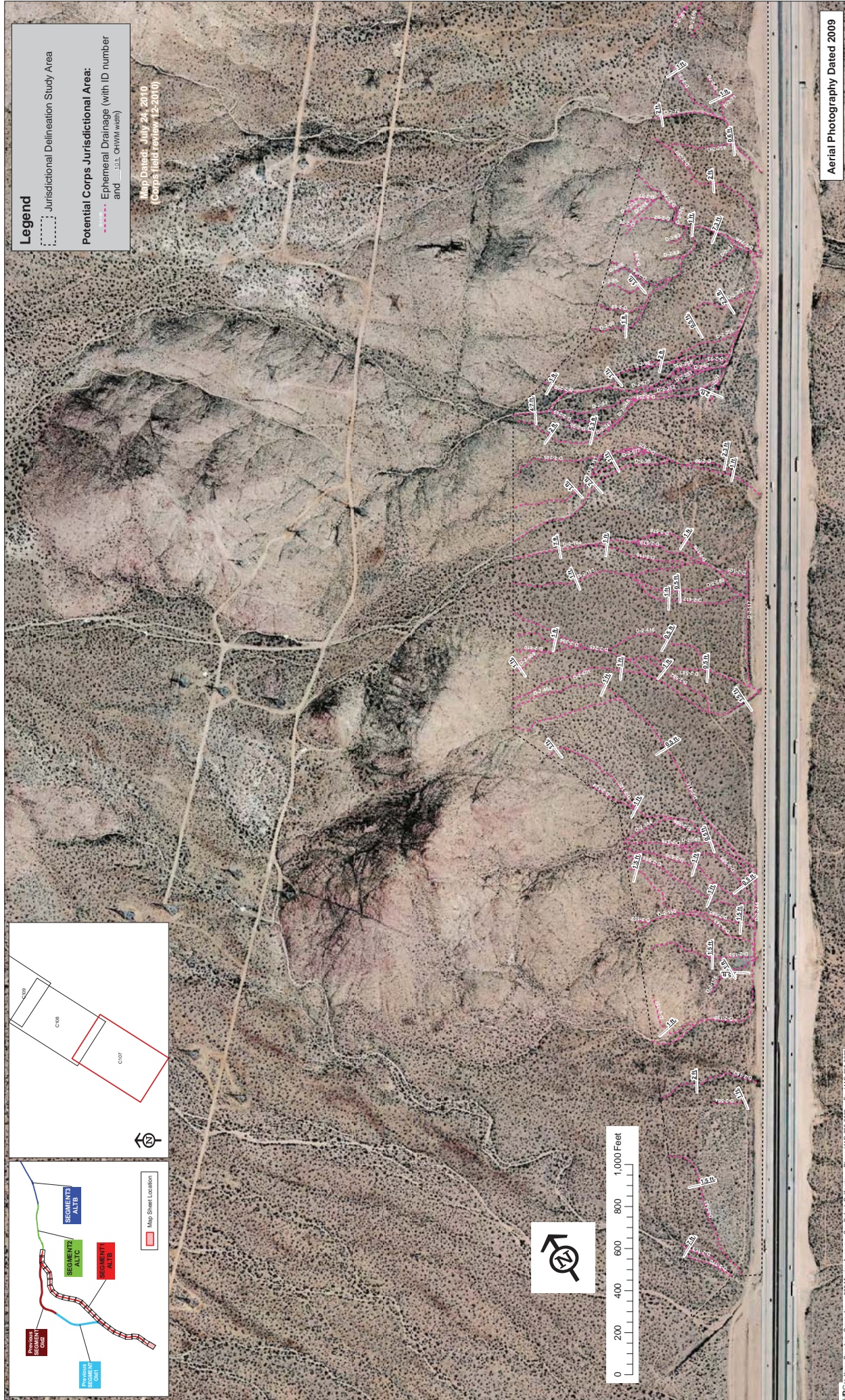
Sources:

Calflora Database. 2010. Calflora Database was developed by the United States Forest Service working in collaboration with U.C. Berkeley. Available at: <http://www.calflora.org/>

National Wetlands Inventory and US Fish And Wildlife Service. 1988. National List of Plant Species that Occur in Wetlands. Compiled by Porter B. Reed, Jr., National Ecology Research Center, US Fish and Wildlife Service, St. Petersburg, Florida. In cooperation with US Army Corps of Engineers, US Environmental Protection Agency, and US Soil Conservation Service.

Exhibit C

Maps of Potential Jurisdictional Areas



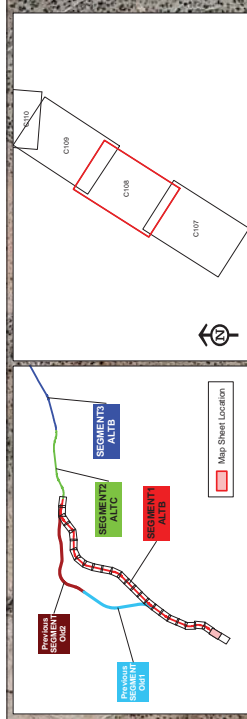
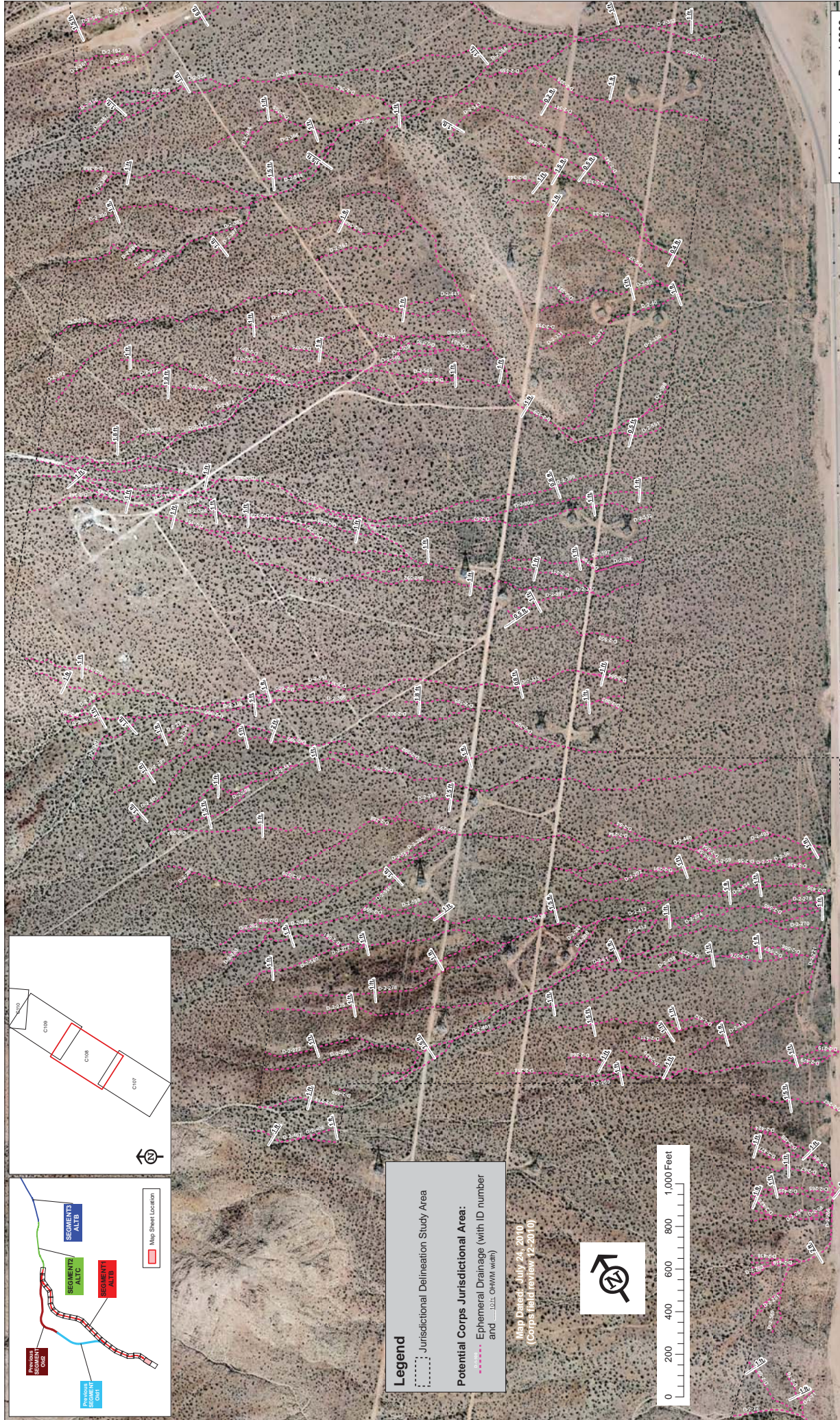
Legend
 Jurisdictional Delineation Study Area
 Potential Corps Jurisdictional Area:
 Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

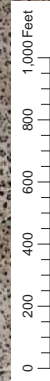
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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C107
 P. 6/277



Legend

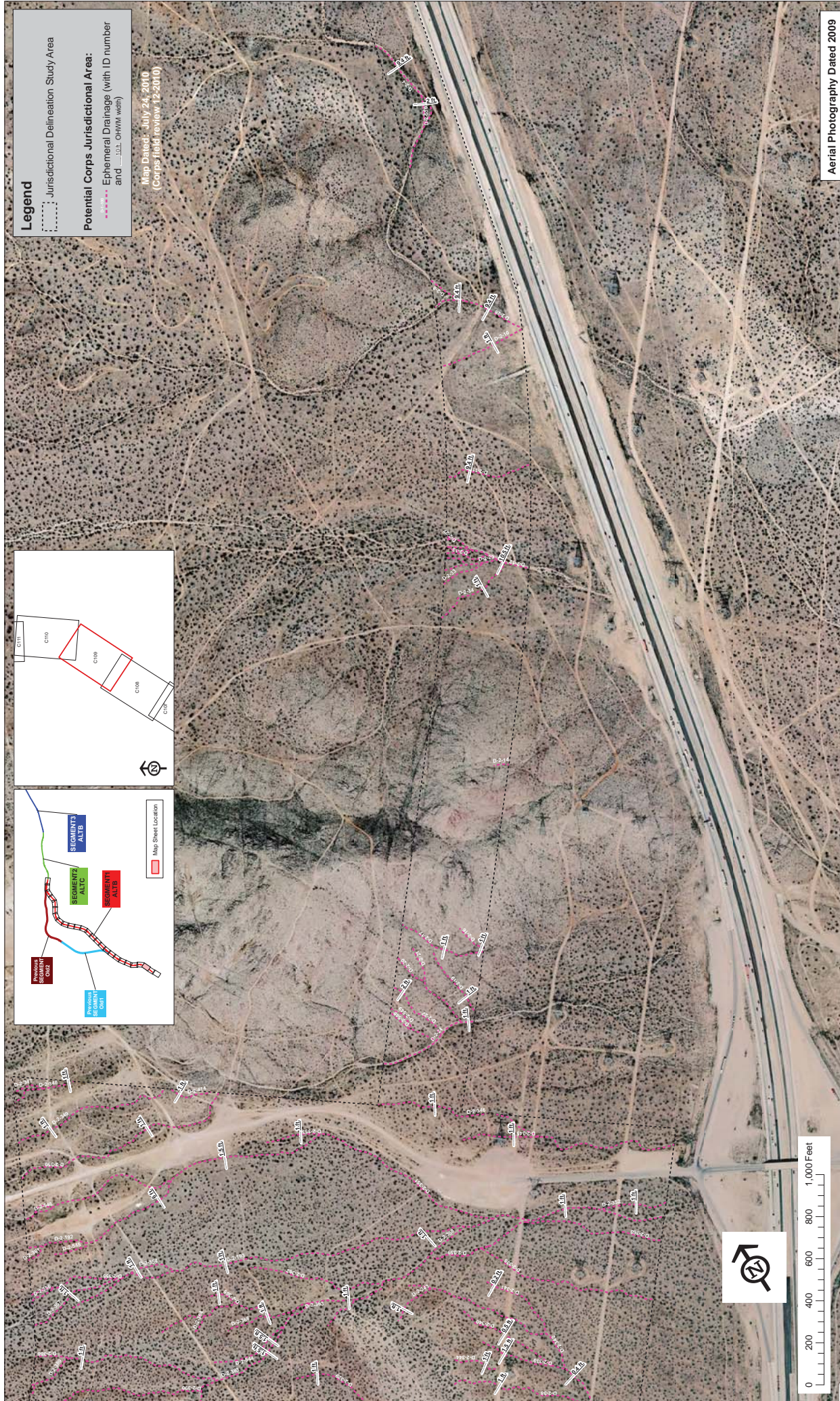
- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and ALT)
 - CHMM (with ALT)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

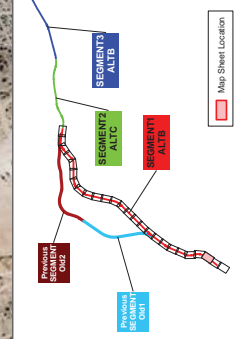
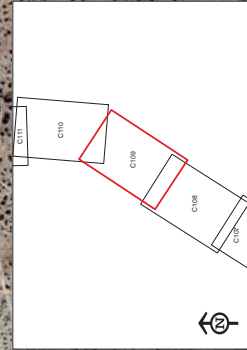
Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C108



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and UTM or WGS84)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C109

PL0729

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Legend

--- Jurisdictional Delineation Study Area

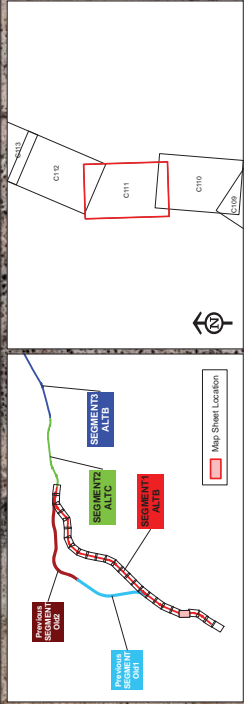
Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12/2010)



Aerial Photography Dated 2009



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 11/2/2010)



Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C111

6-6371

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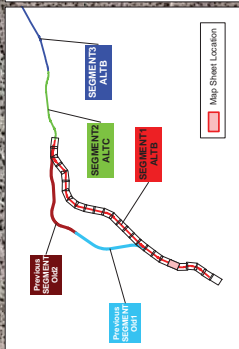
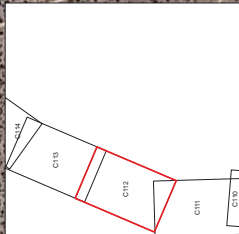
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

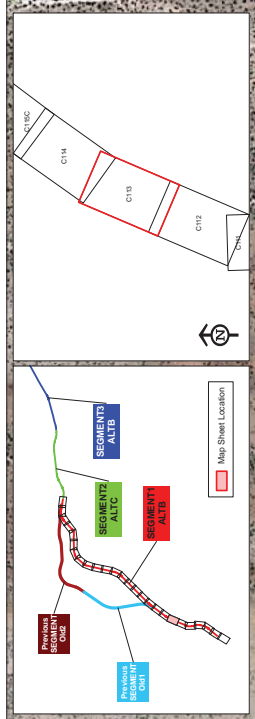


Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C112

P-0122

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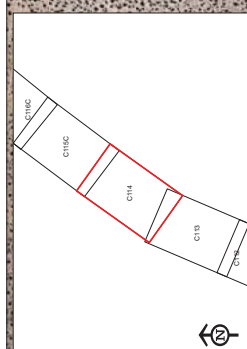
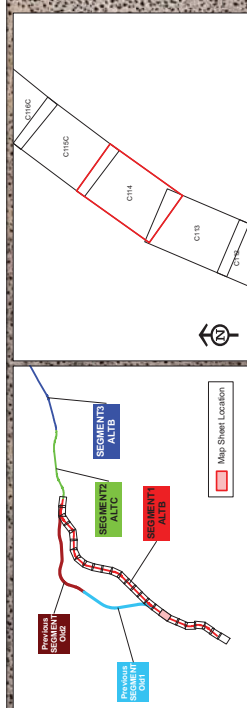
Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area: Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)



Aerial Photography Dated 2009



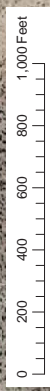
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Jurisdictional Delineation Study Area

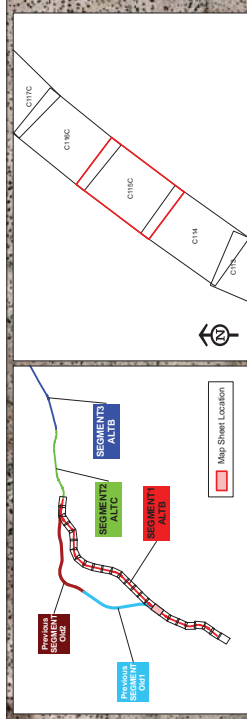
Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)



Aerial Photography Dated 2009



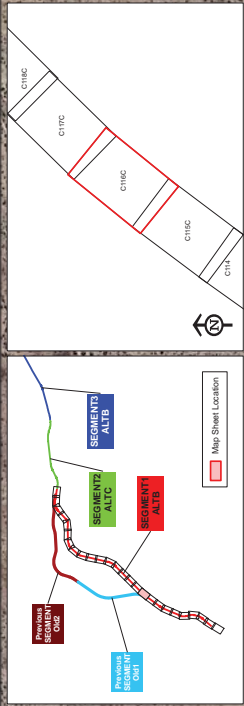
Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)

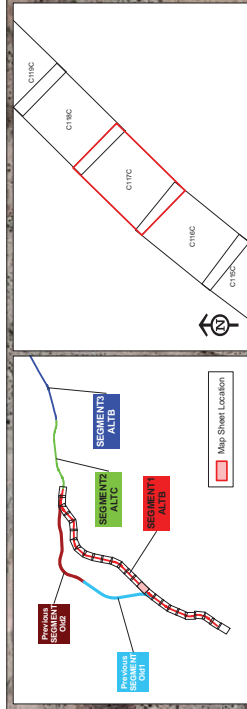


Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C116C

PL0706

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Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C117C



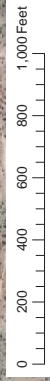
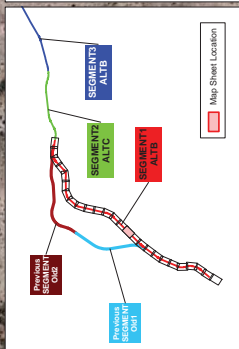
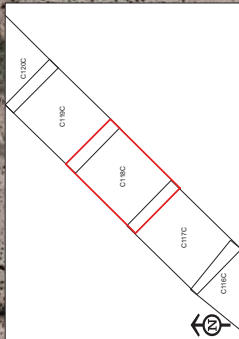
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

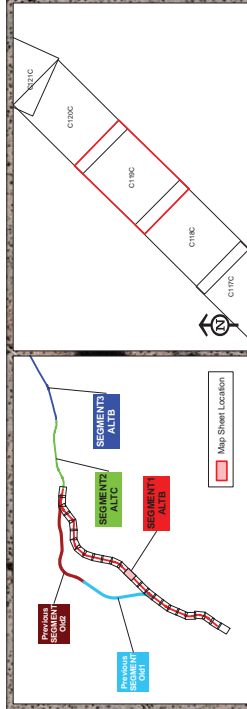


Aerial Photography Dated 2009

Hillman-Broschway Group, Inc. • 823 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C118C

P-0738



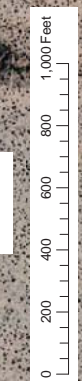
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

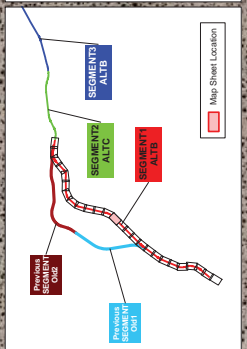
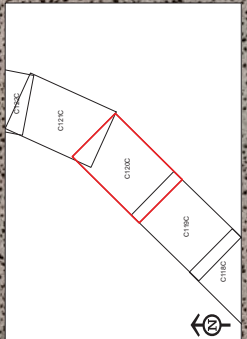
Map Dated: July 24, 2010
(Corps field review 12/2010)



Aerial Photography Dated 2009

H2G Huffman-Brosniew Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 825-2000 • Fax (415) 825-2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C119C



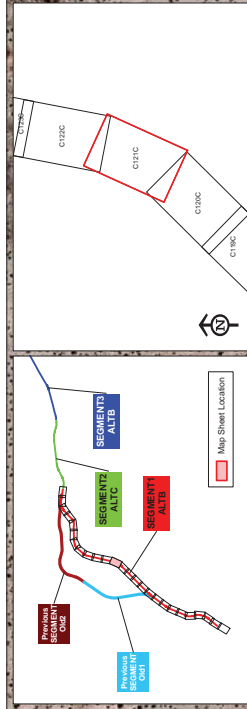
Map Dated: July 24, 2010
 (Corps field review 1/2/2010)

Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C120C

FIG. 10

HDR/Huffman-Brosnady Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 857-2000 • Fax (415) 857-2006



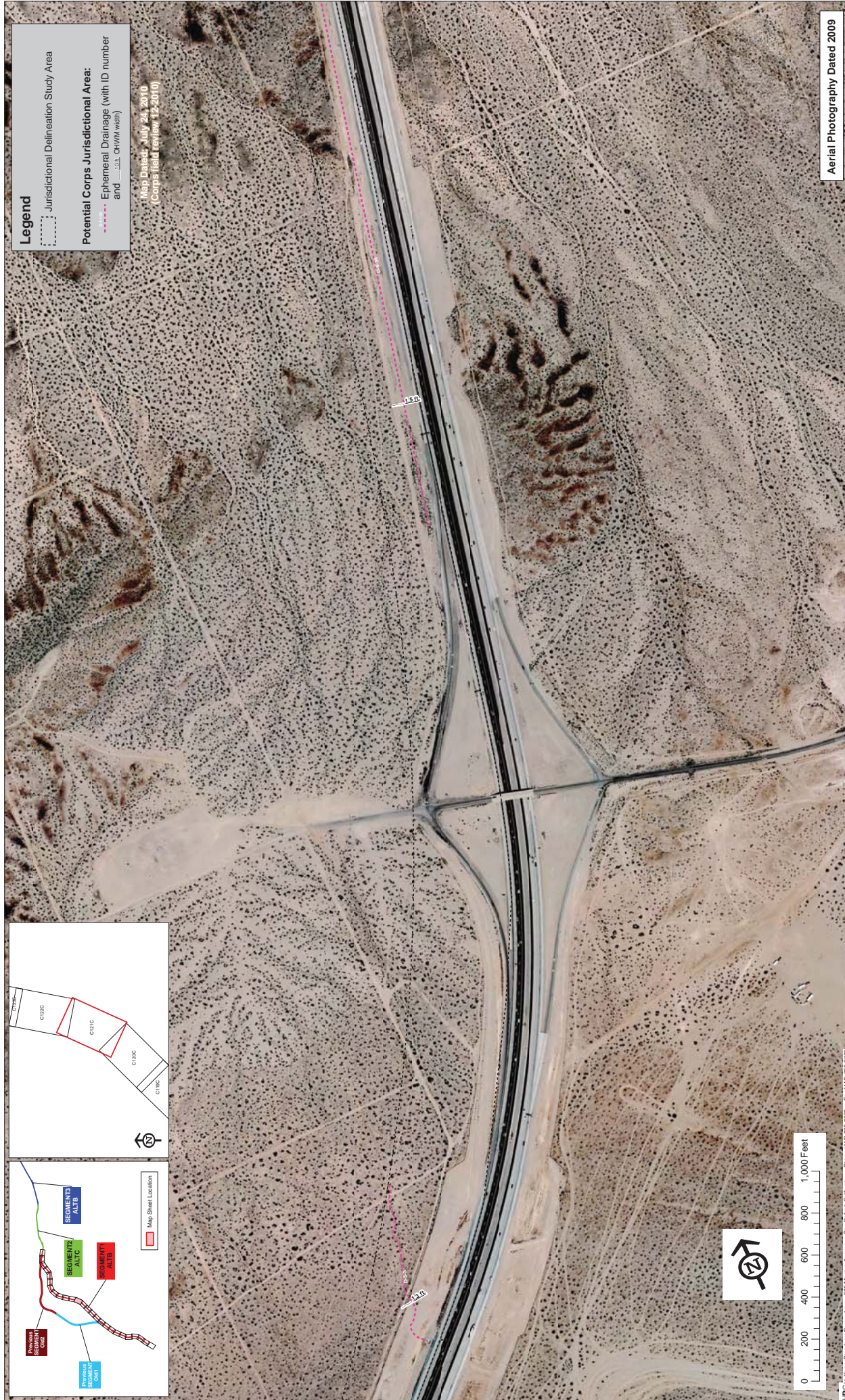
Legend

Jurisdictional Delineation Study Area

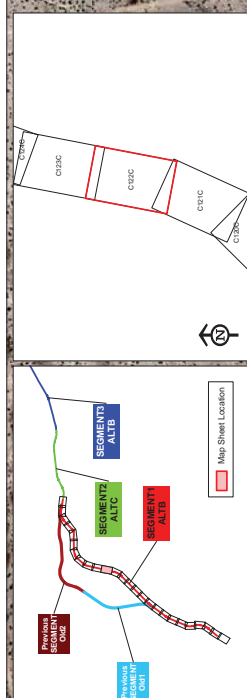
Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 1/2/2010)



Aerial Photography Dated 2009



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

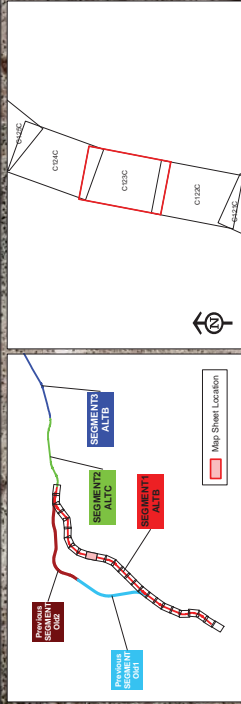
Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

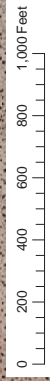
Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C122C



Legend

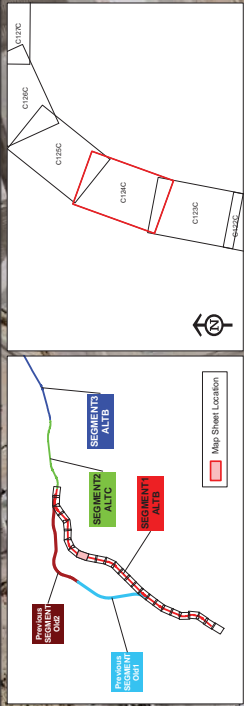
- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C123C



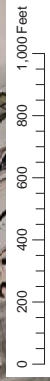
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 4/2/2010)

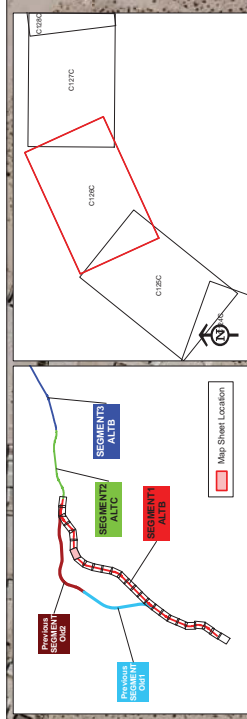


Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C124C

FIG. 214

HDR/Huffman-Brosnady Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2006



Legend

Jurisdictional Delineation Study Area

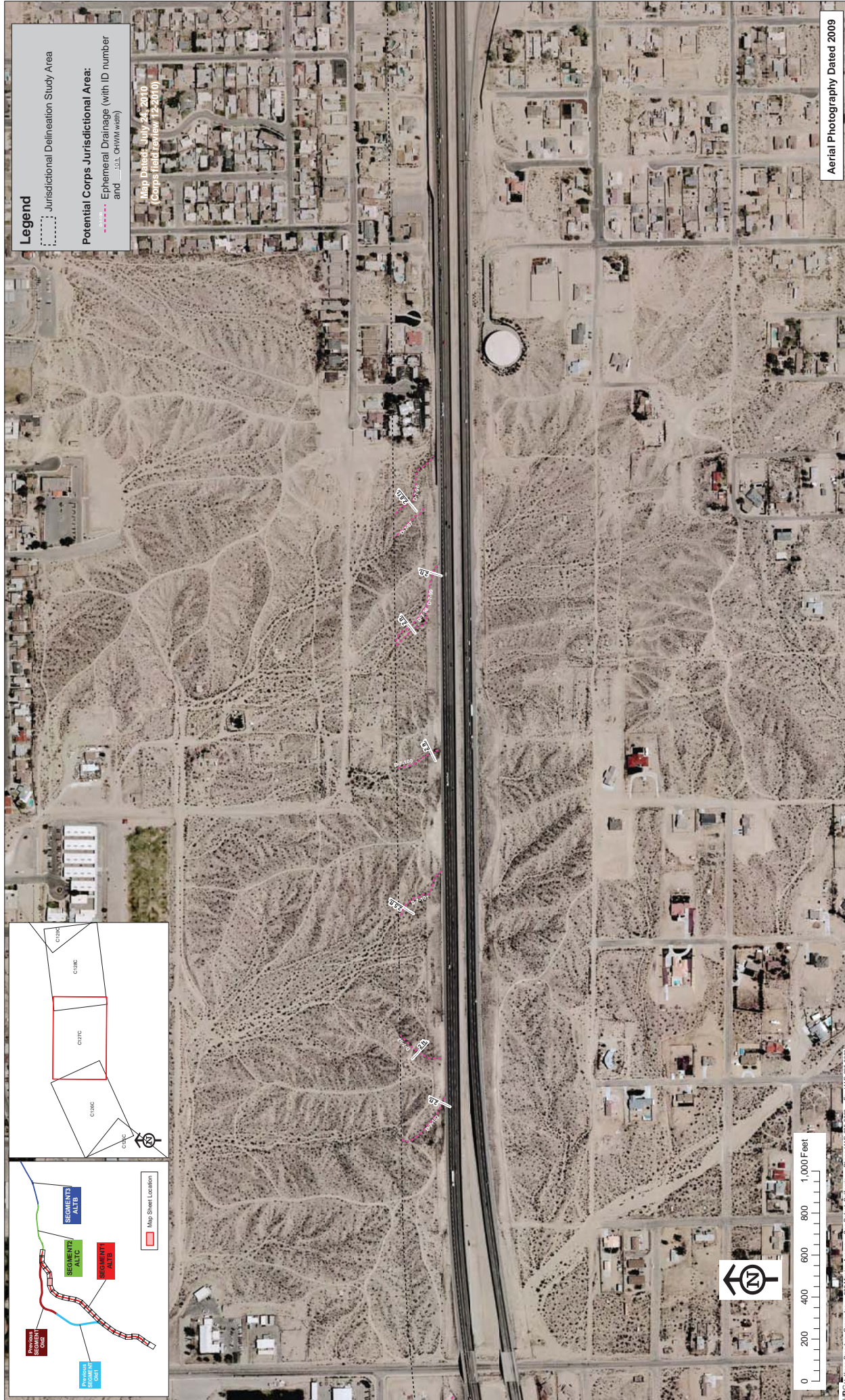
Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



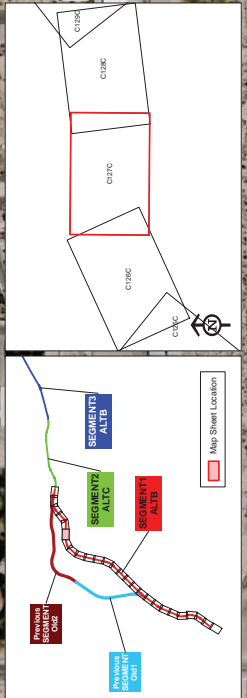
Aerial Photography Dated 2009



Legend

 Jurisdictional Delineation Study Area
 Potential Corps Jurisdictional Area:
 Ephemeral Drainage (with ID number
 and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



HGI Hillman-Brosnaw Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 807-2000 • Fax (415) 805-2006

Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C127C



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12/2010)

Aerial Photography Dated 2009

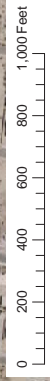
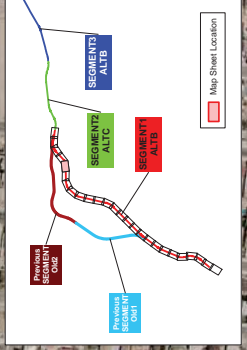
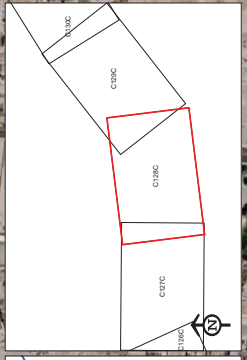


Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C128C



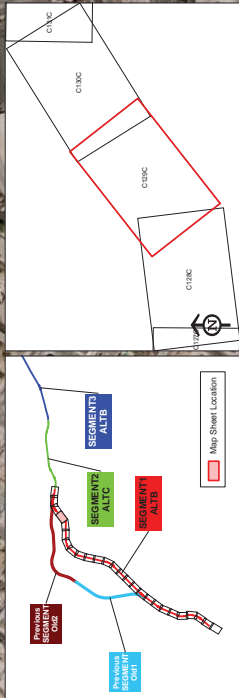
Legend

--- Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

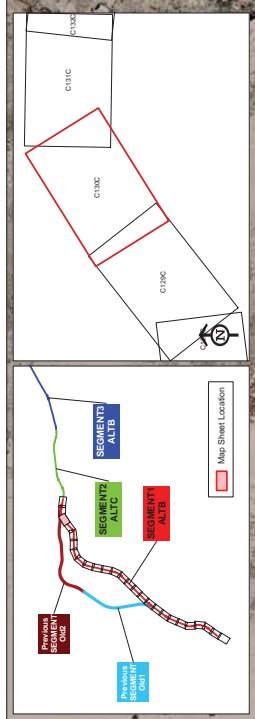


Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C129C

FIG. 6-10

HDR/Huffman-Brownlee Group, Inc., 828 Mission Avenue, San Rafael, California, Phone (415) 887-2000, Fax (415) 885-2008



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

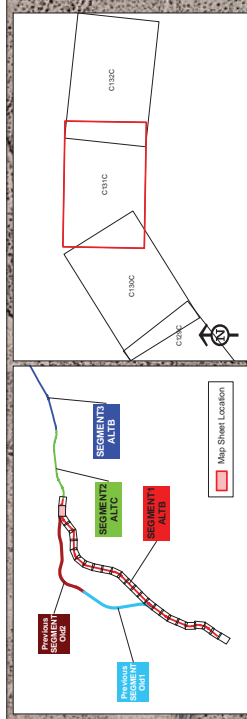
Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

H2G/Huffman-Brosniew Group, Inc. • 823 Mission Avenue • San Rafael, California • Phone (415) 807-2000 • Fax (415) 805-2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C130C



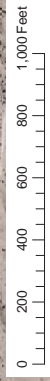
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12/2010)



Aerial Photography Dated 2009

HDR/Huffman-Brosnaw Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 887-2000 • Fax (415) 885-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C131C

6-0305



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

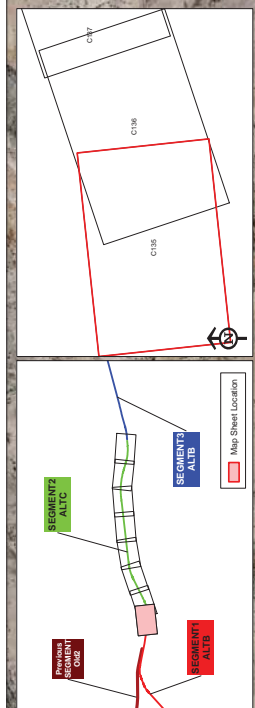
Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

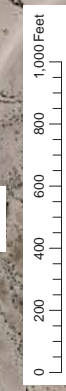
Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 1 Alt B, Map Sheet C132C



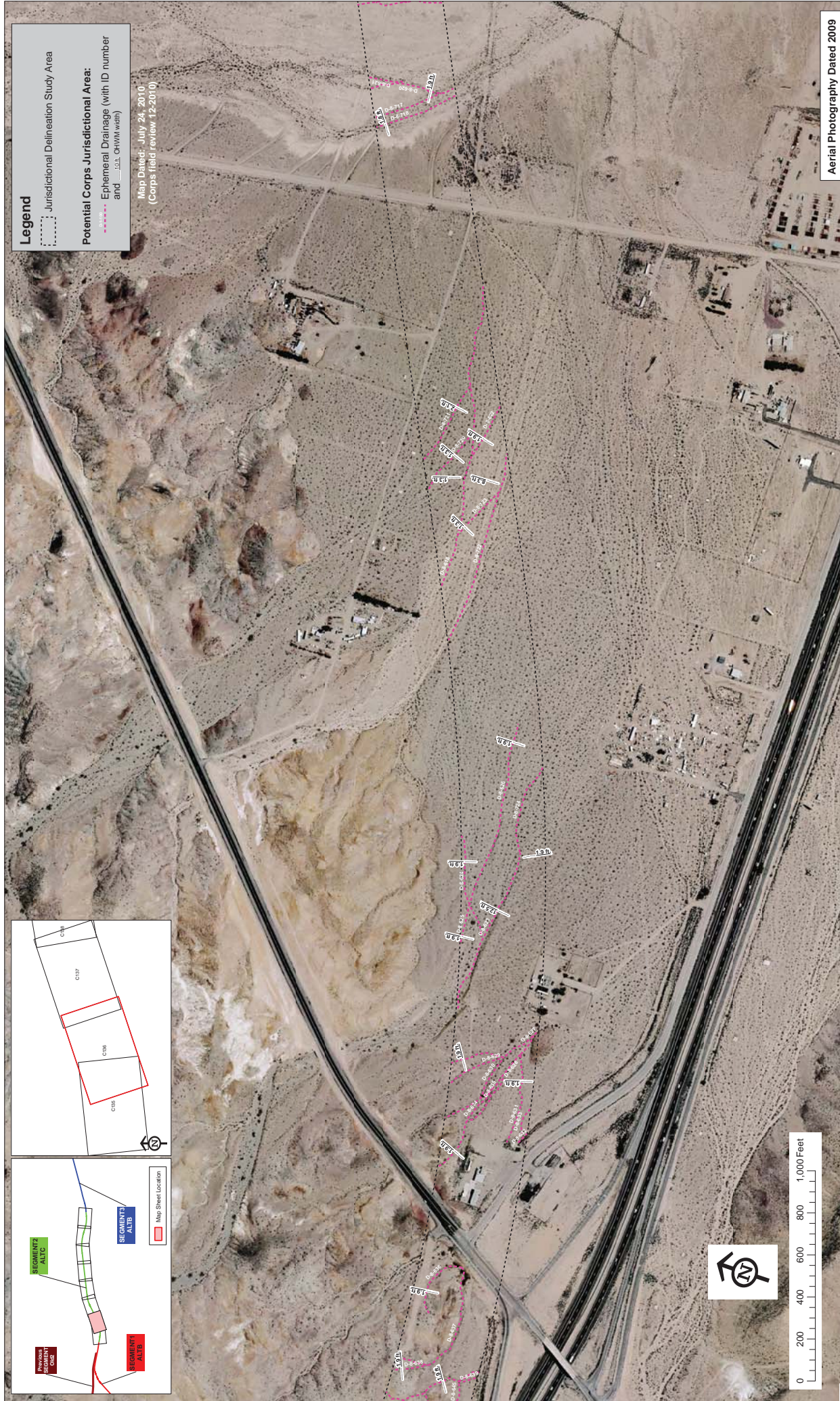
Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2009

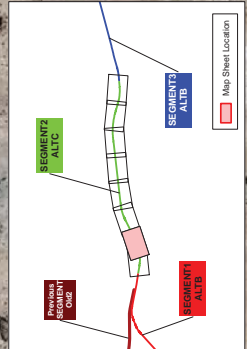
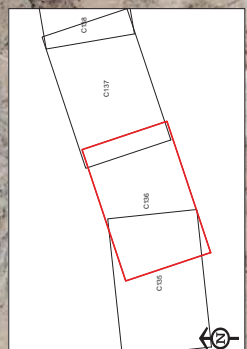


Legend

--- Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

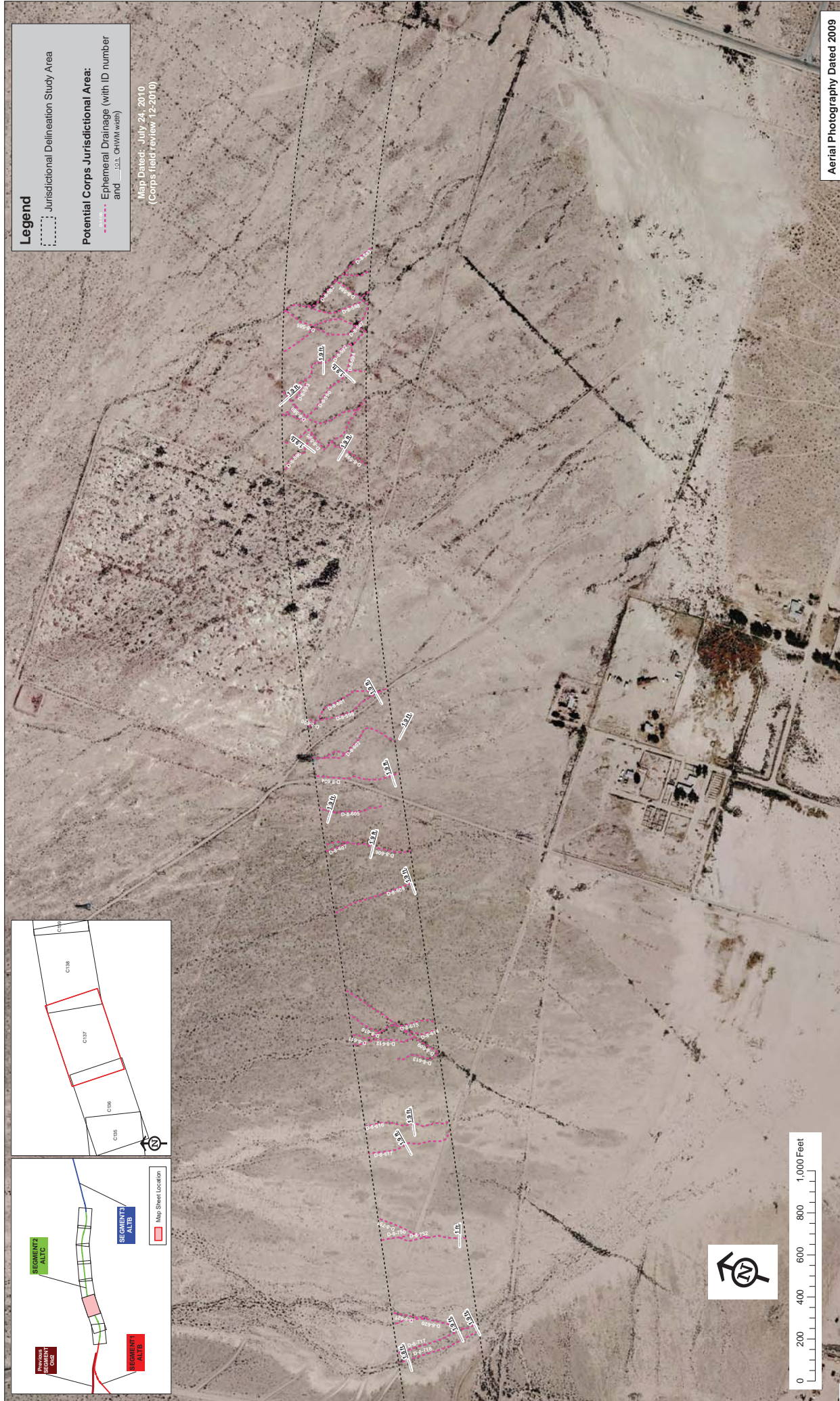


Aerial Photography Dated 2009

HDR/Huffman-Brosnan Group, Inc. • 823 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C136

PL0704



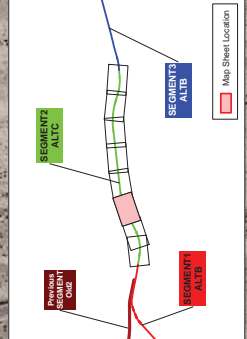
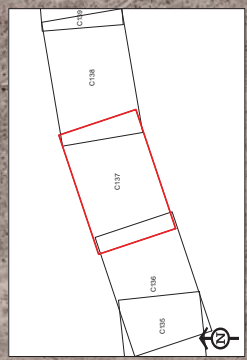
Legend

--- Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and --- CWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

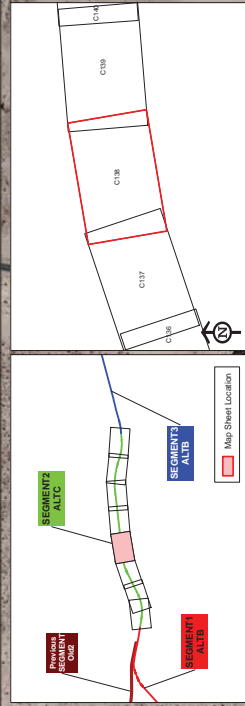


Aerial Photography Dated 2009

HDR/Huffman-Broschew Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C137

PL0705



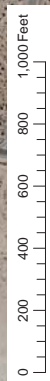
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and \pm CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

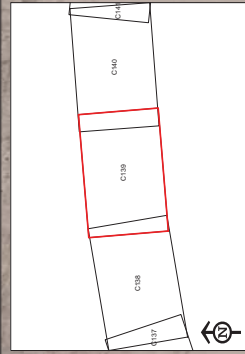
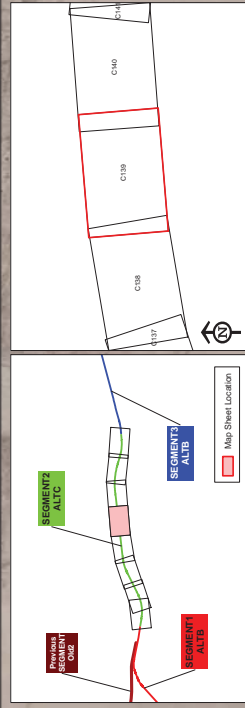


Aerial Photography Dated 2009

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C138

P. 01766

HDR/Huffman-Brosniew Group, Inc. • 825 Mission Avenue • San Isabel, California • Phone (415) 857-2000 • Fax (415) 857-2006



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)

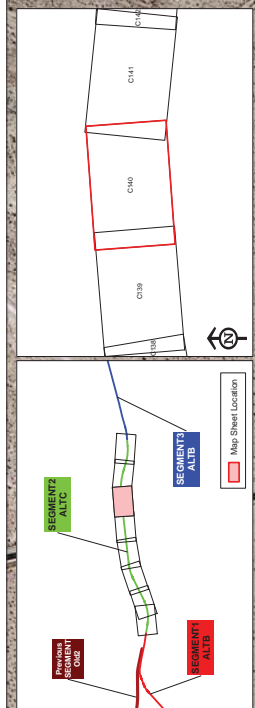


Aerial Photography Dated 2009

HJ Huffmaster-Brookway Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 887-2000 • Fax (415) 885-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C139

4/8/07



Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



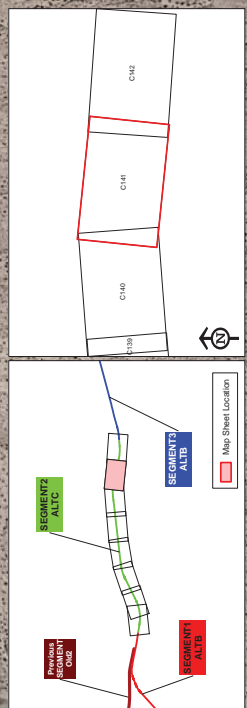
Aerial Photography Dated 2009



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

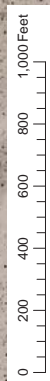


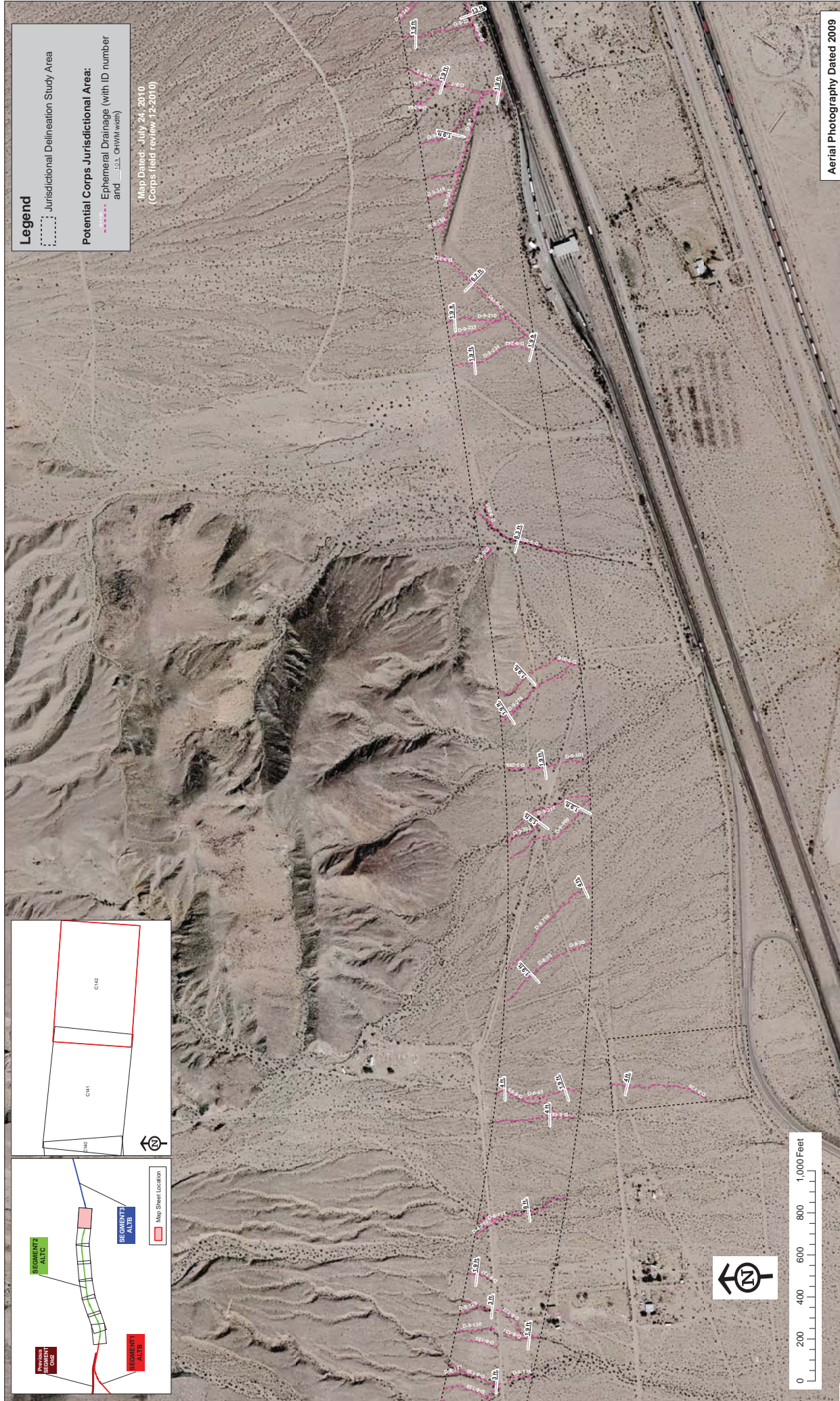
Aerial Photography Dated 2009

HDR/Huffman-Broschey Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2006

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C141

PL0709

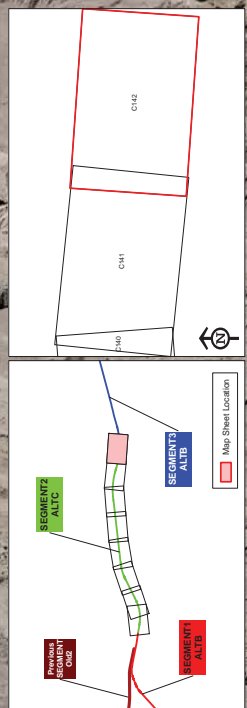




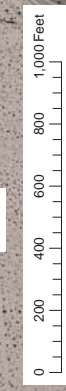
Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



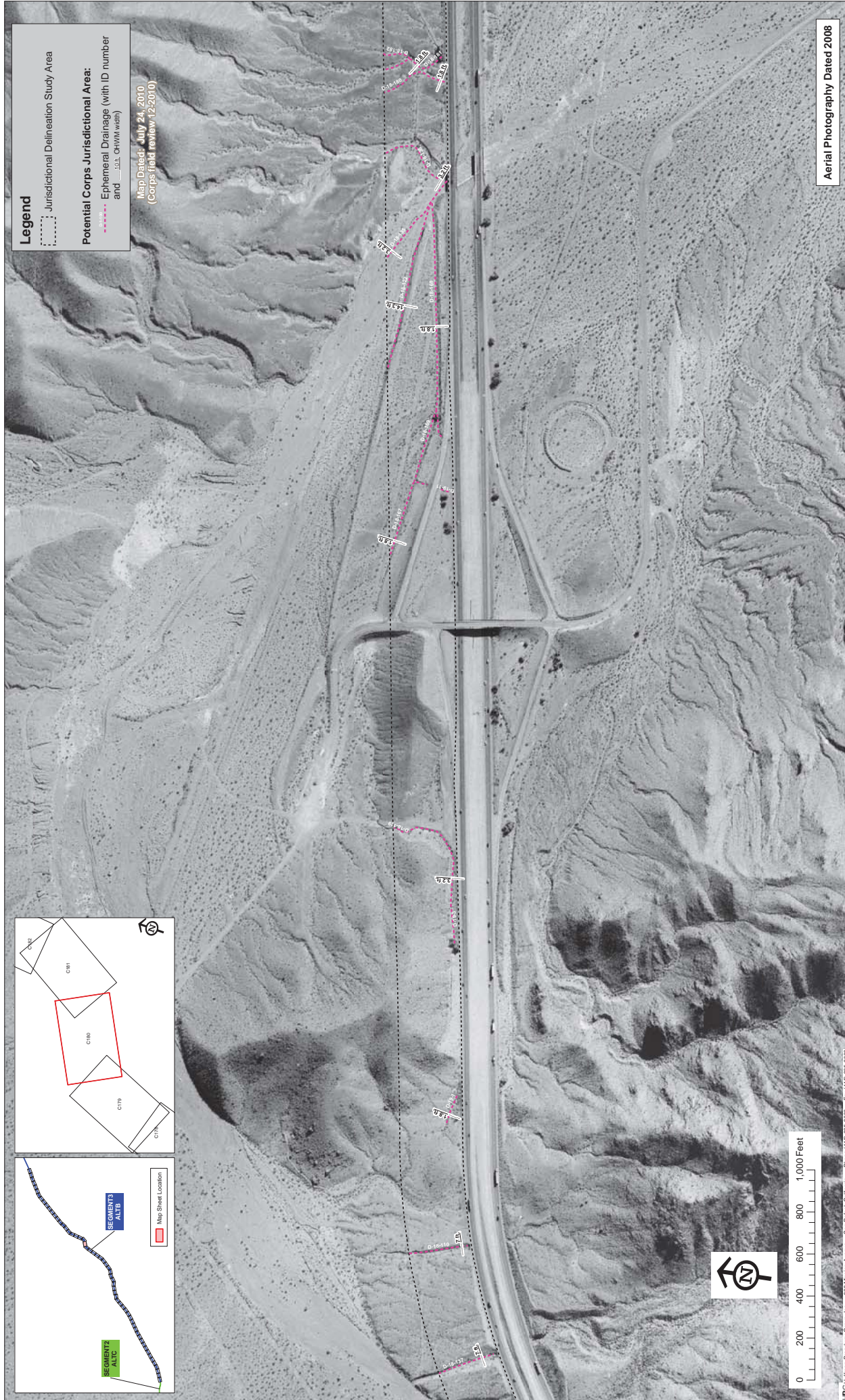
Aerial Photography Dated 2009



HDR/Huffman-Brosnan Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 887-2000 • Fax (415) 885-2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 2 Alt C, Map Sheet C142

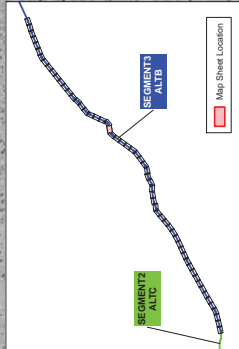
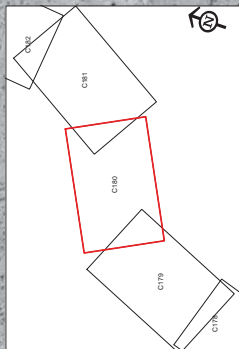
PL0700



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-20-10)



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C180

4/6/2010

HDR Engineering Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2008



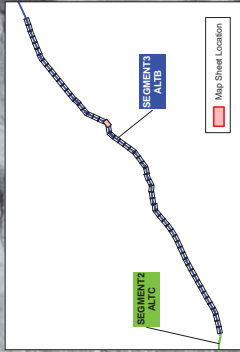
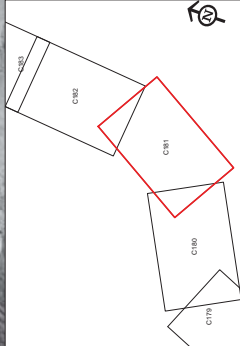
Legend

--- Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and CHWM width)

Map Dated: July 24, 2010
(Corps field review (2-2010))



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C181

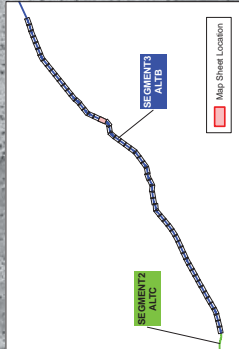
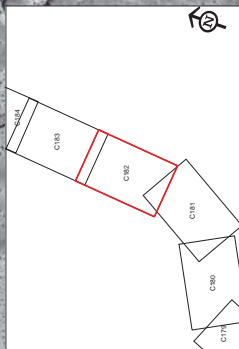
PL0302



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corpus field review 12-2010)



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C182

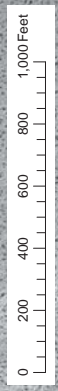
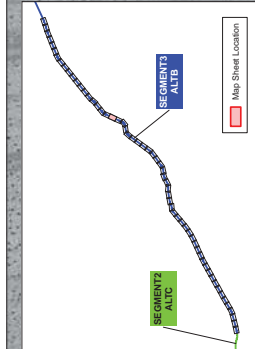
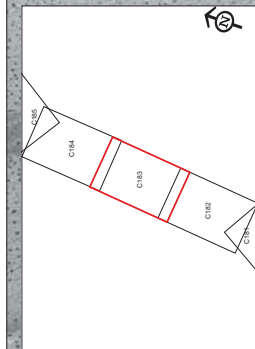
PL0703

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Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008



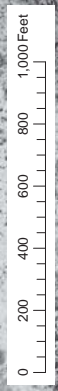
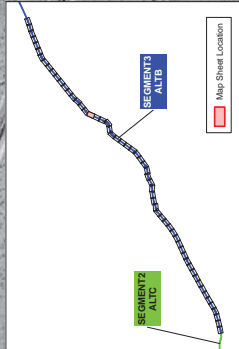
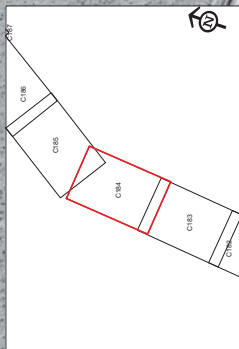
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C184

4-10765

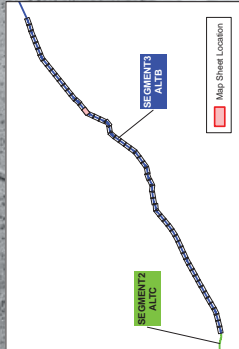
H2O/Huffman-Brosnan Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 805-2000 • Fax (415) 805-2008



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and USGS CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12/2010)



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C185

P-0706

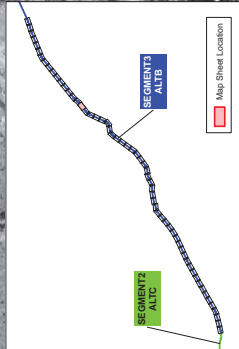
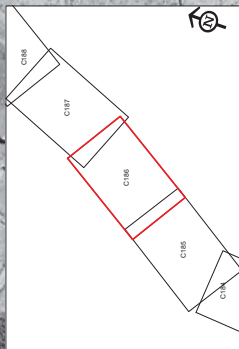
HDR/Huffman-Brosnan Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2008



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)



Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C186

PL0307

HDR/Huffman-Broschew Group, Inc. • 828 Mission Avenue • San Rafael, California • Phone (415) 882-2000 • Fax (415) 882-2008



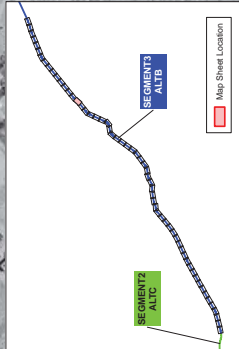
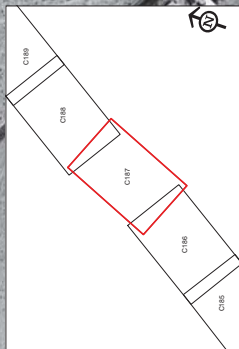
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--- Jurisdictional Delineation Study Area

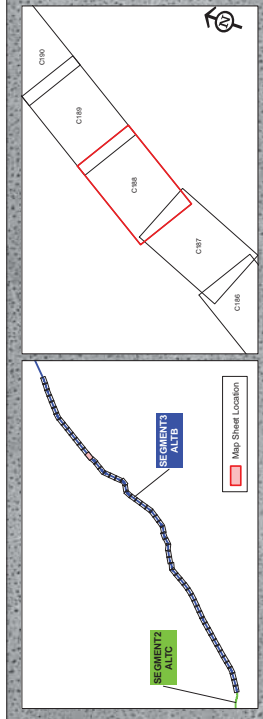
Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008



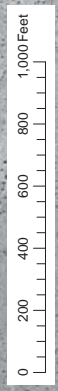
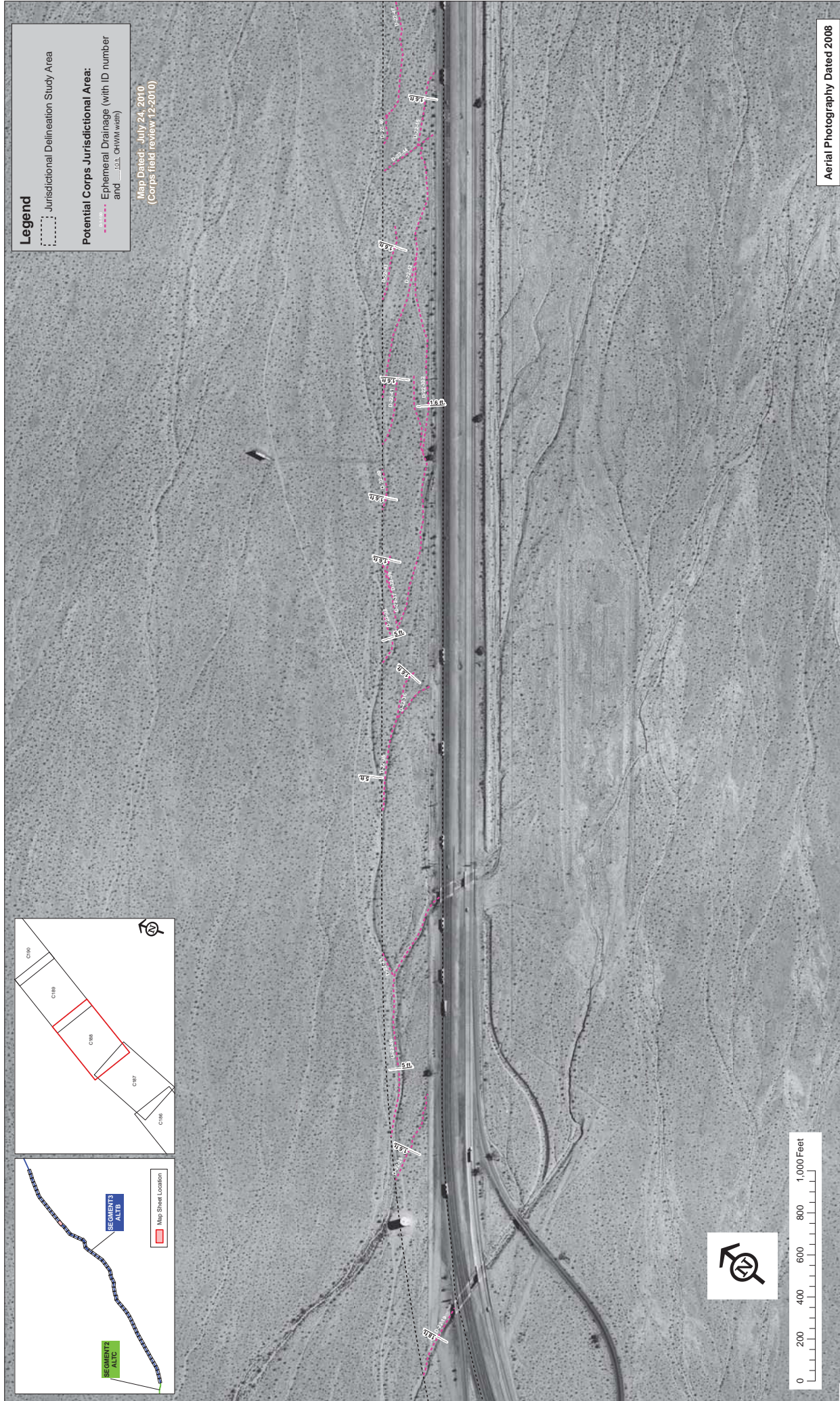
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Jurisdictional Delineation Study Area

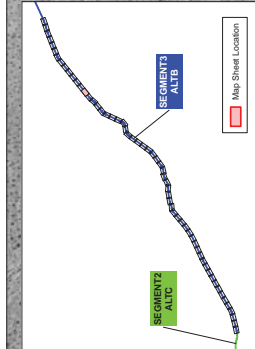
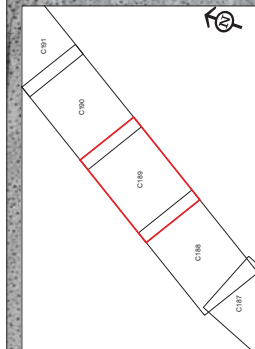
Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



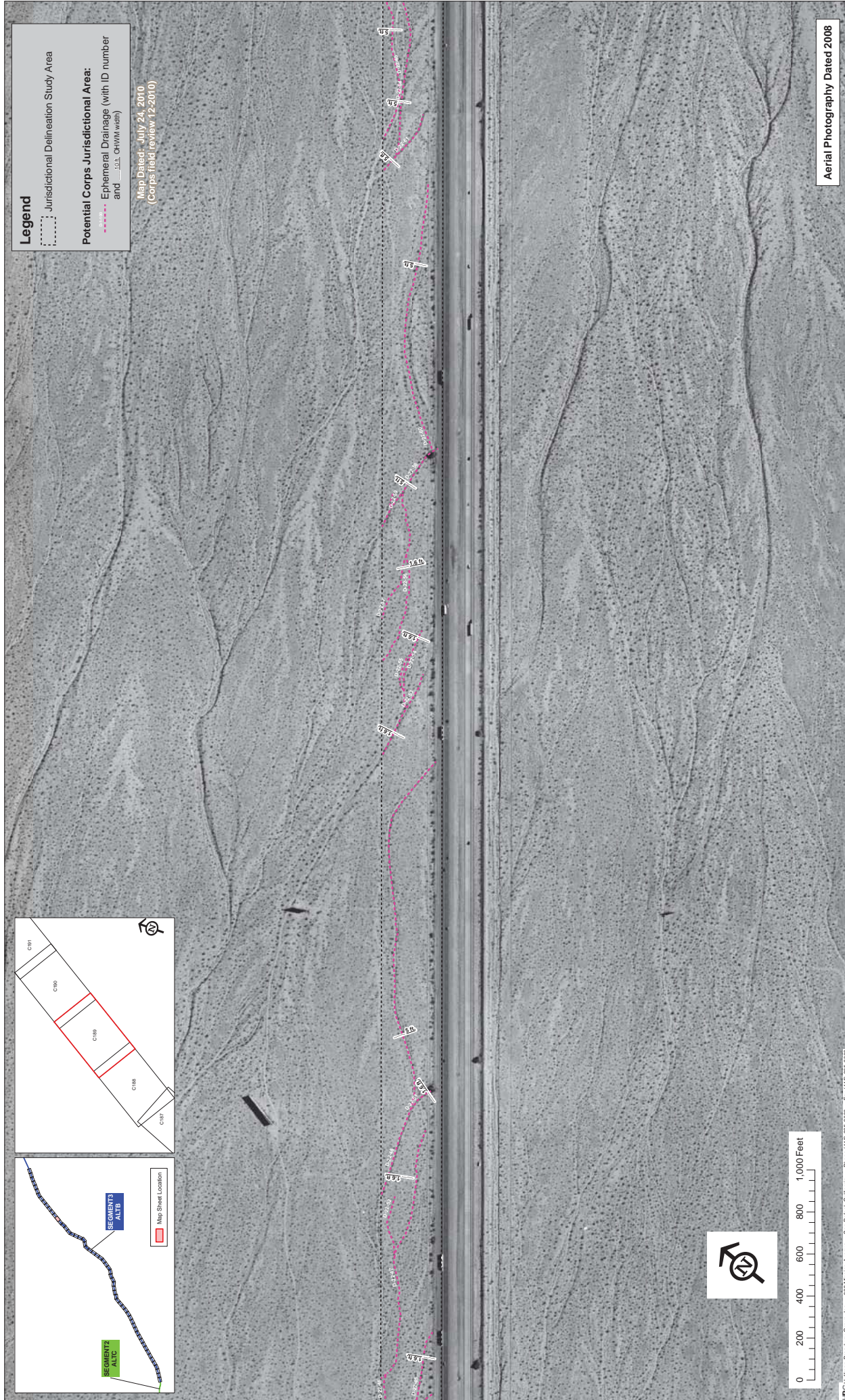
Aerial Photography Dated 2008



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and 10:1 CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)

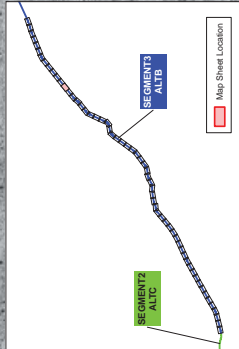
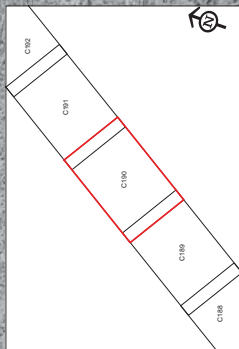


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C189

PL0770



Legend

Jurisdictional Delineation Study Area
 Potential Corps Jurisdictional Area:
 Ephemeral Drainage (with ID number and USGS CHWM width)

Map Dated: July 24, 2010
 (Corpus field review 12-2010)

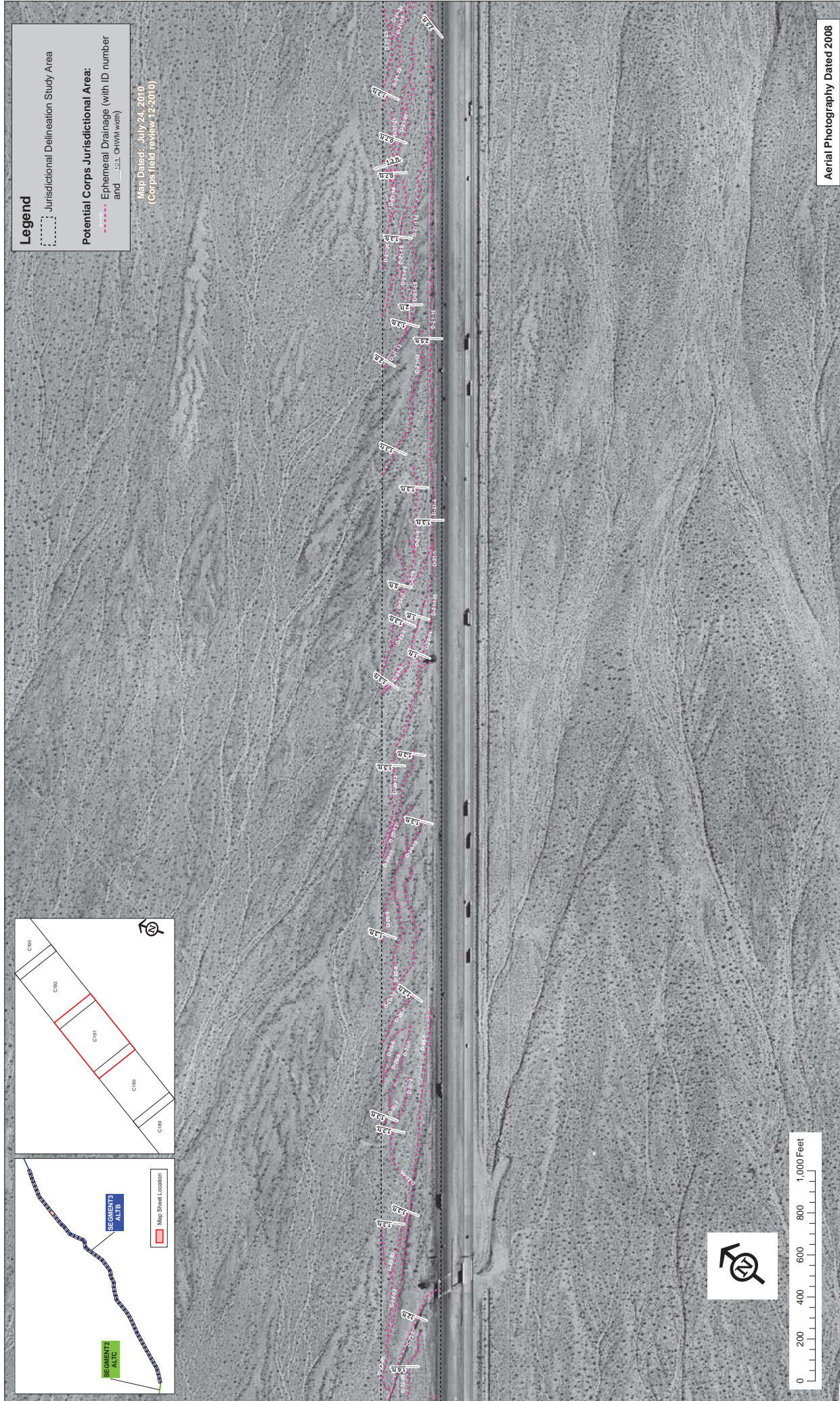


Aerial Photography Dated 2008



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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C190

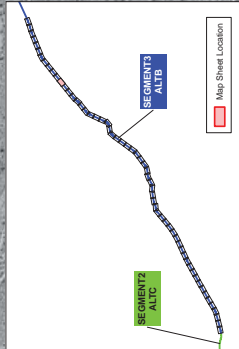
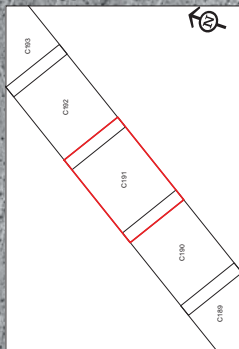
4-63771



Legend

 Jurisdictional Delineation Study Area
 Potential Corps Jurisdictional Area:
 Ephemeral Drainage (with ID number
 and US CWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

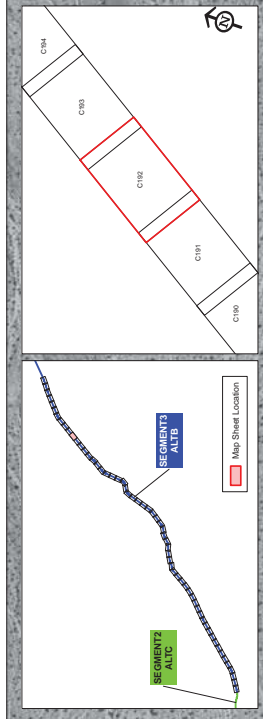


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C191

4-0772



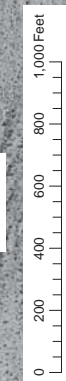
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Jurisdictional Delineation Study Area

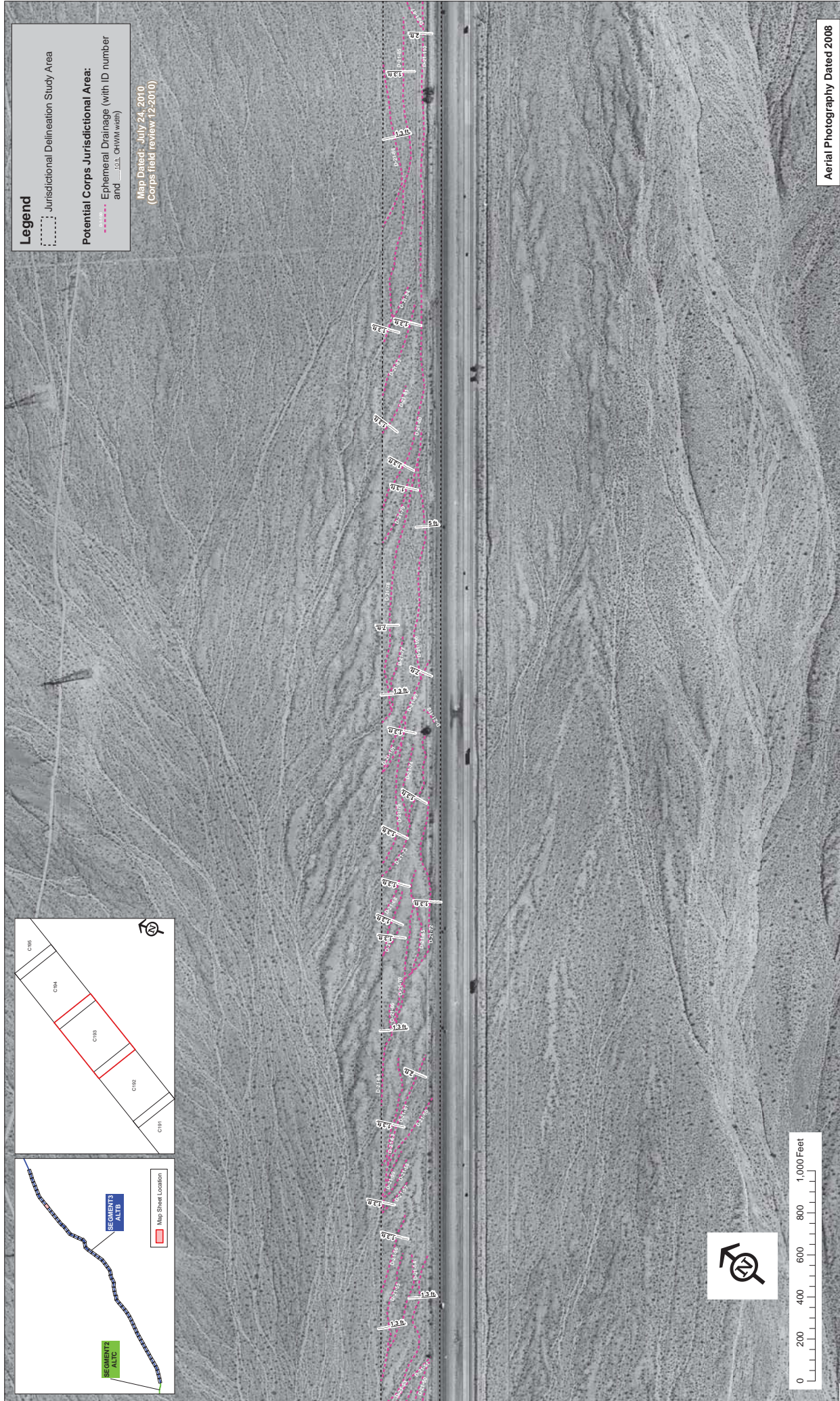
Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008



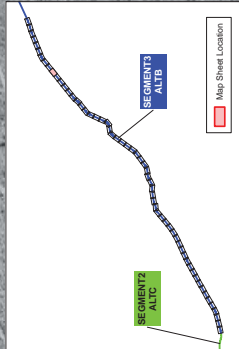
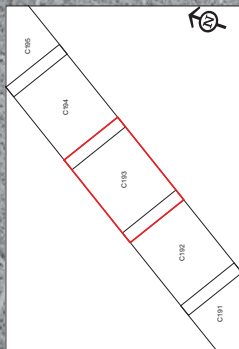
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and US CWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

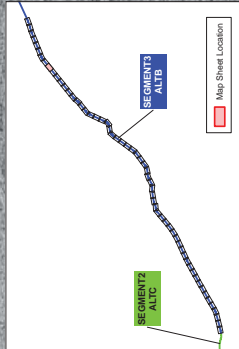
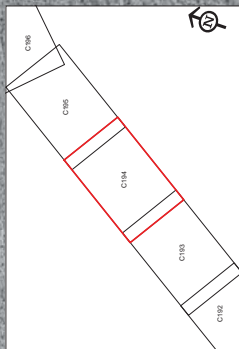


Aerial Photography Dated 2008

Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C193

4-6774

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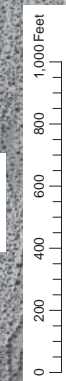
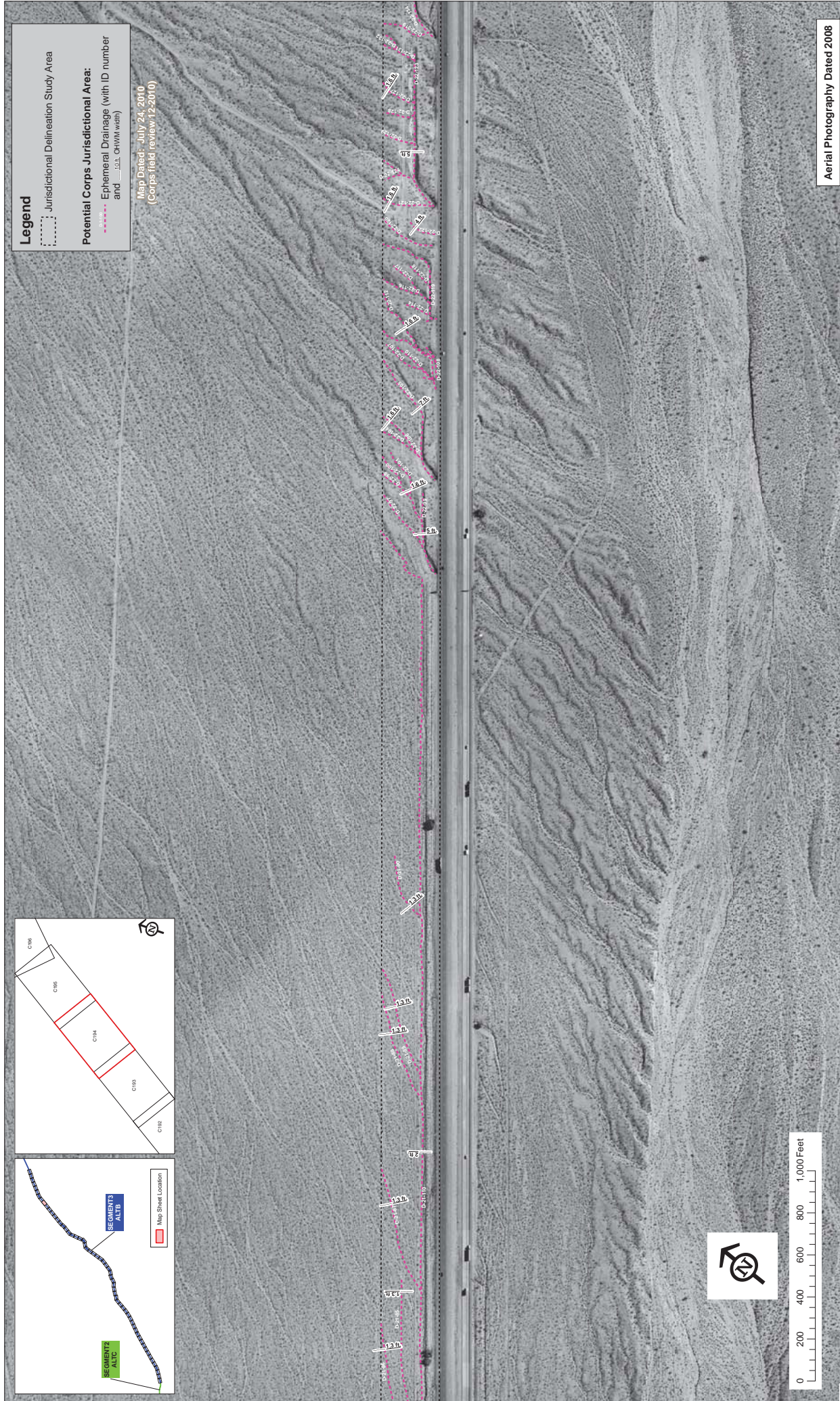
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)



Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C194

4-6776



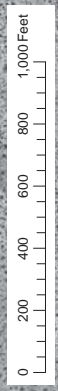
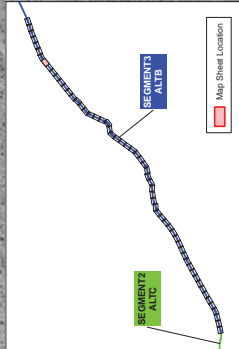
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

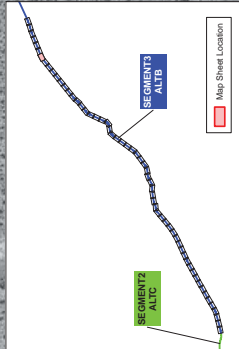
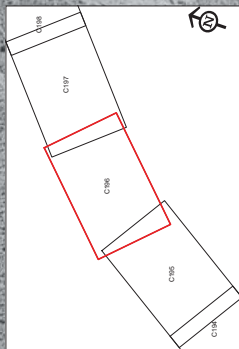


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C195

PL0776



Legend

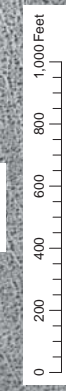
--- Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

--- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

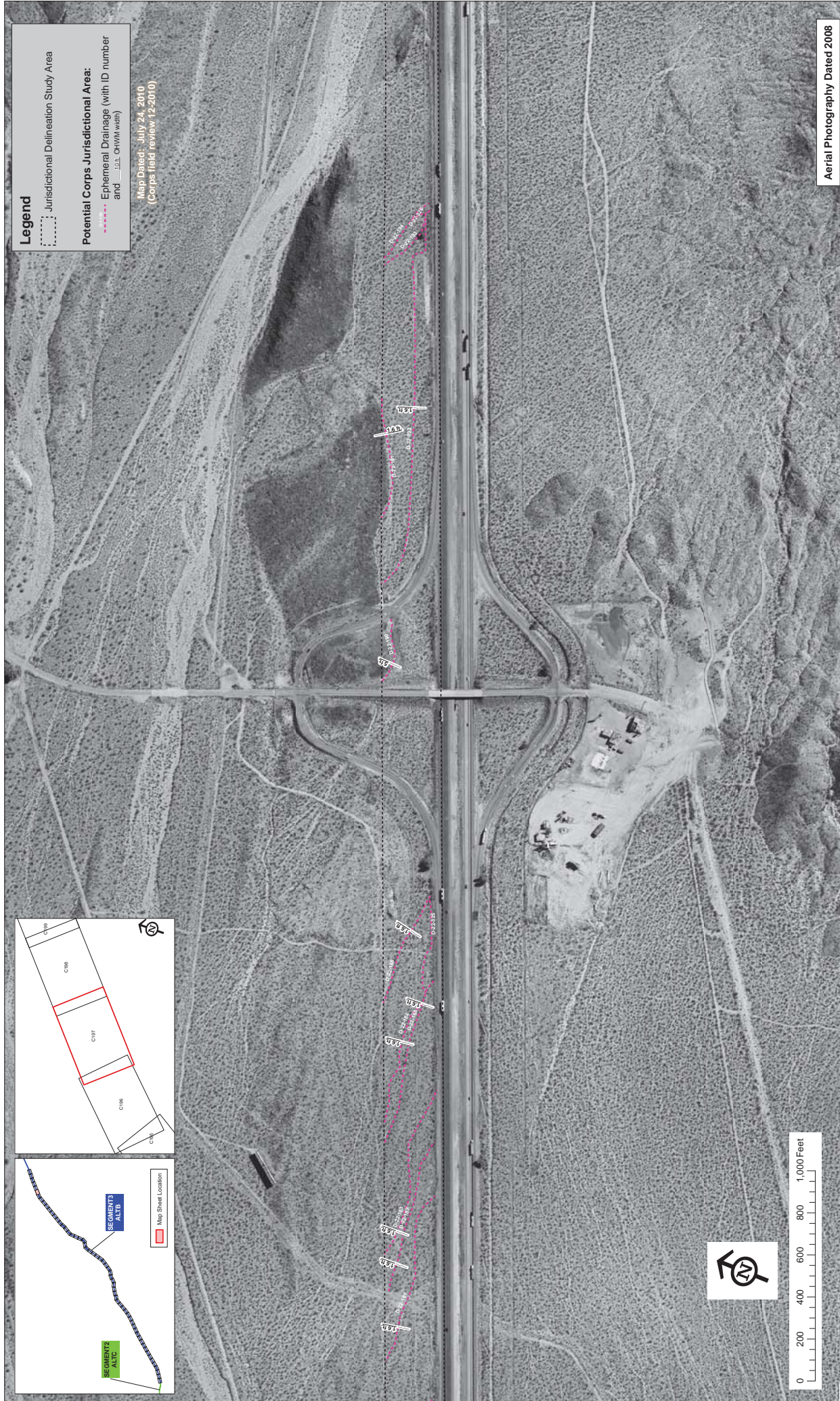
Aerial Photography Dated 2008



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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C196

4-63777



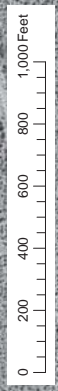
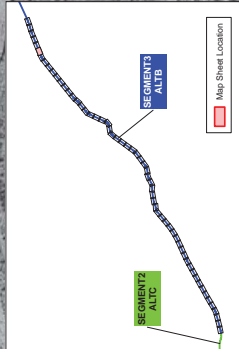
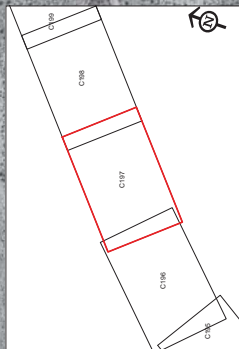
Legend

Jurisdictional Delineation Study Area

Potential Corps Jurisdictional Area:

Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C197

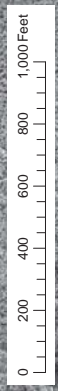
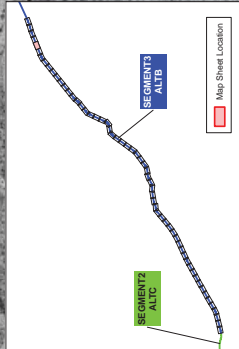
PL0778



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)

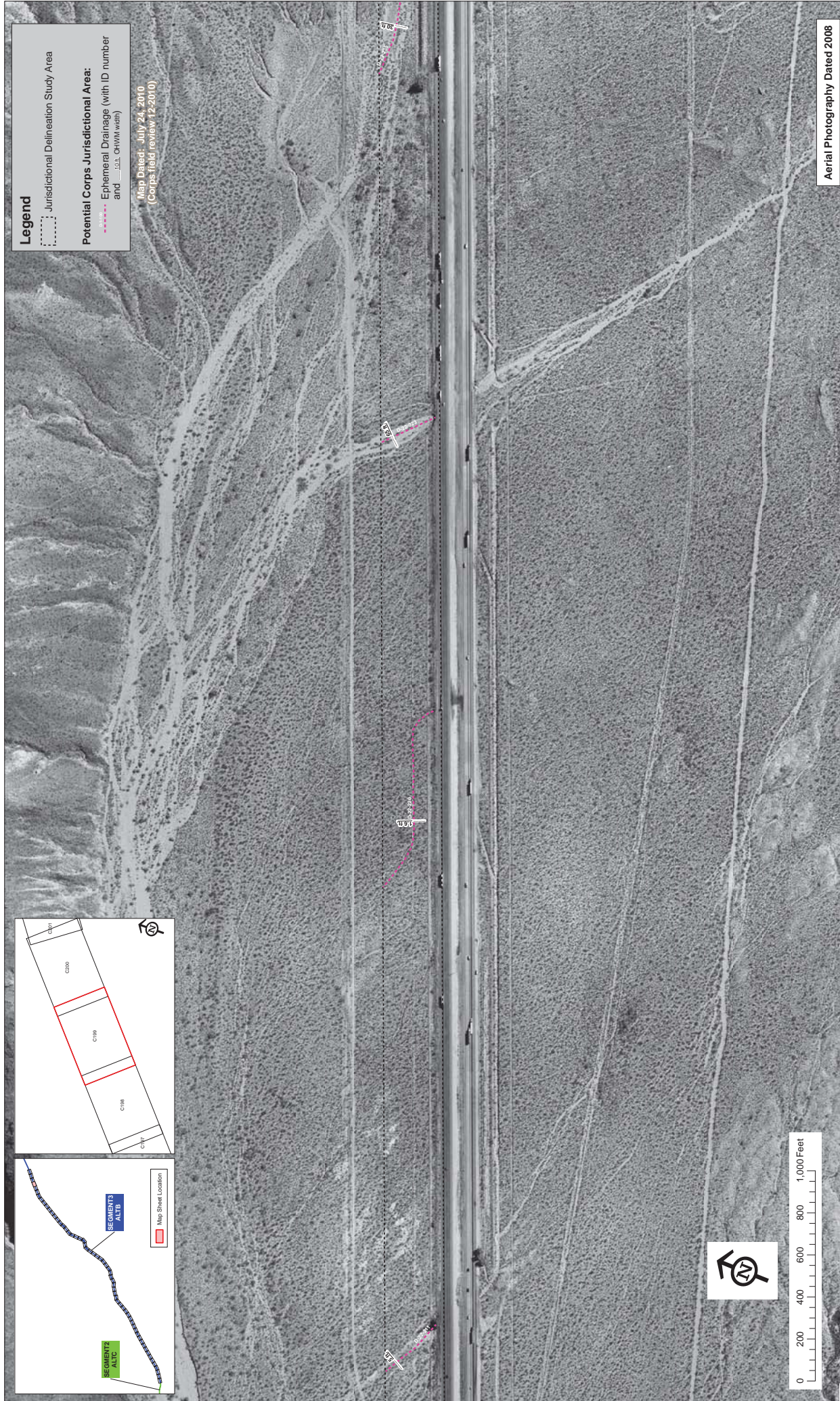


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C198

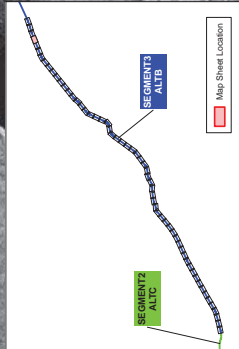
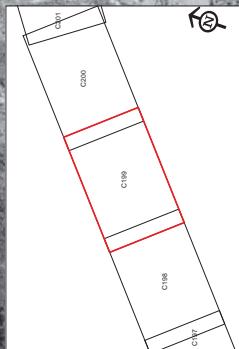
PL0779



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 12-2010)

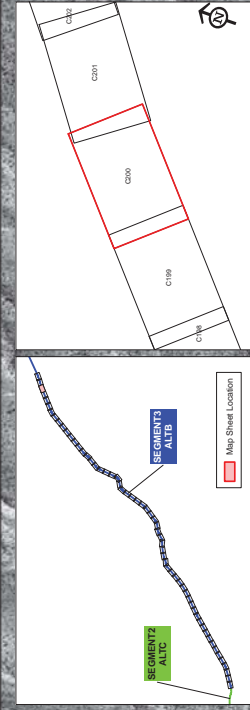


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C199

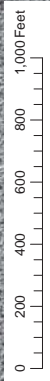
F-01760



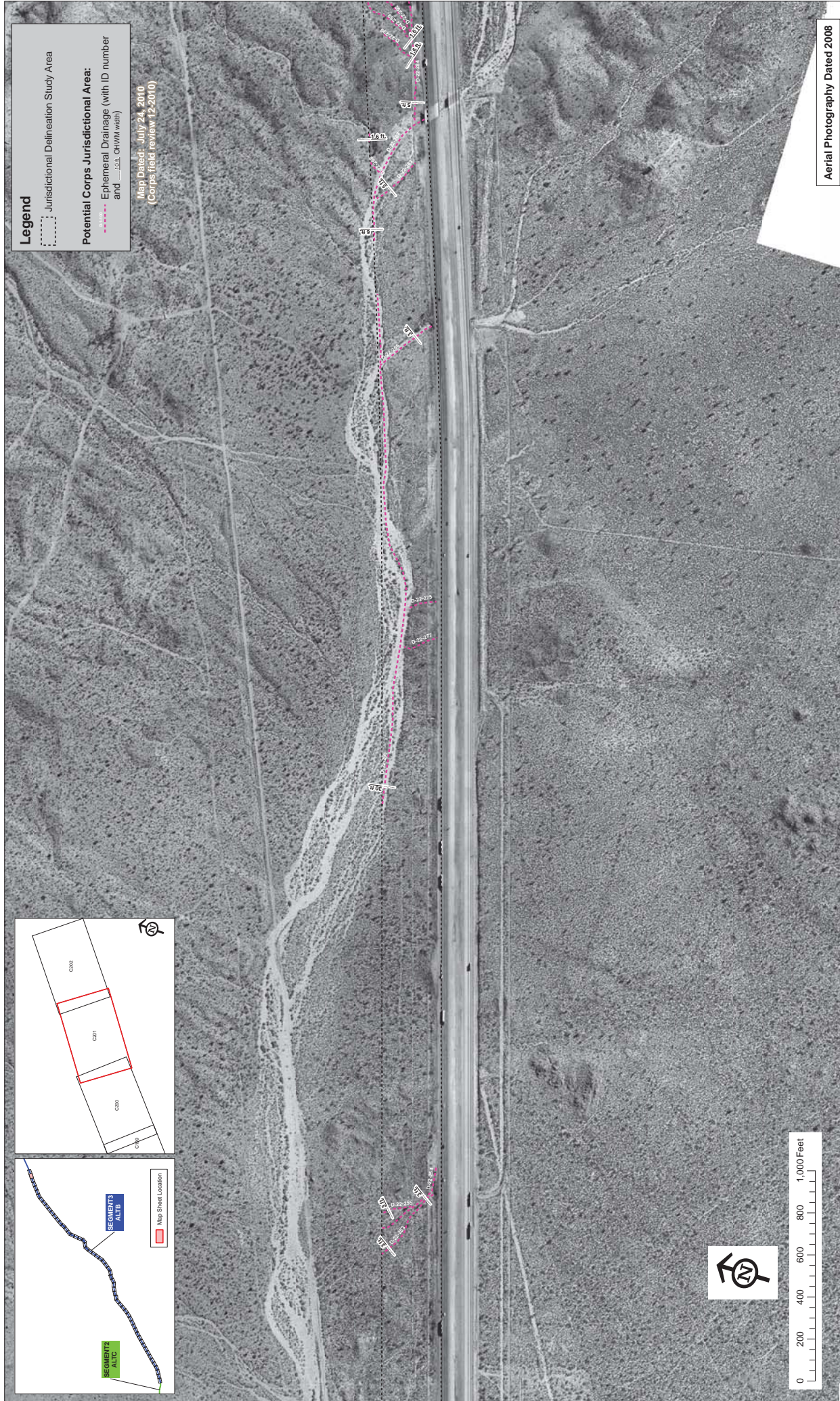
Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
 - Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)



Aerial Photography Dated 2008



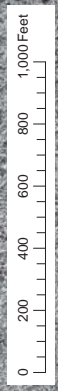
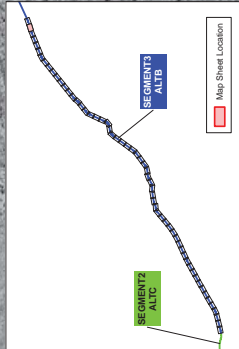
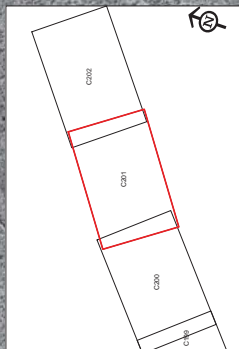
Legend

--- Jurisdictional Delineation Study Area

..... Potential Corps Jurisdictional Area:

..... Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
 (Corps field review 12-2010)

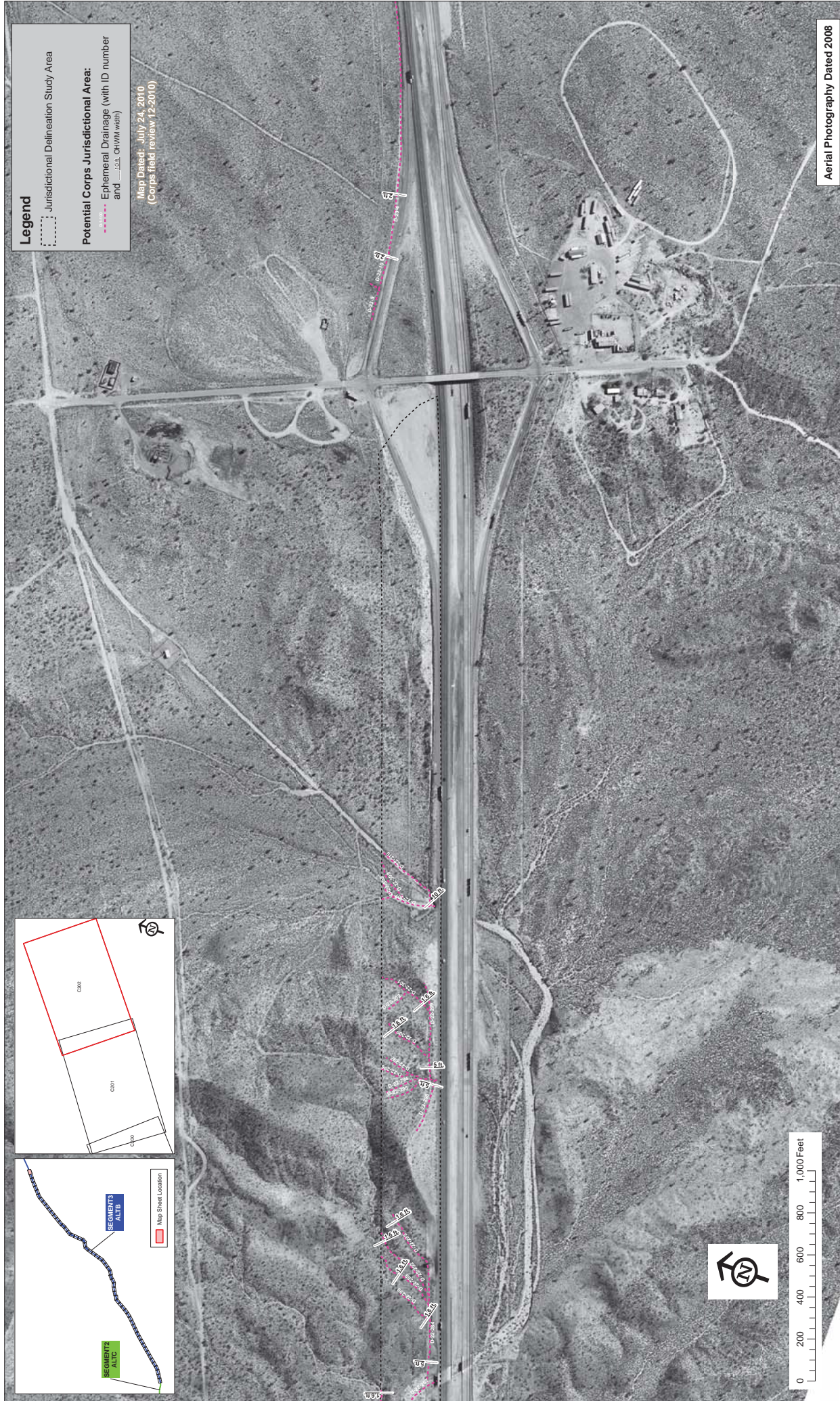


Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C201

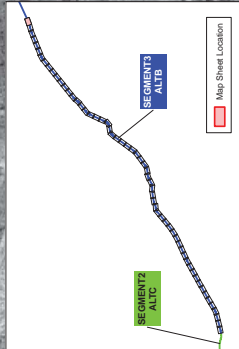
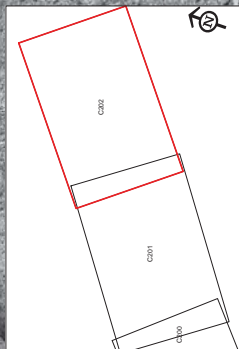
F-6102C



Legend

- Jurisdictional Delineation Study Area
- Potential Corps Jurisdictional Area:
- Ephemeral Drainage (with ID number and U.S. CHWM width)

Map Dated: July 24, 2010
(Corps field review 7/2-2010)



Aerial Photography Dated 2008

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Exhibit C. Areas Potentially Subject to Corps Jurisdiction Under Section 404 of the Clean Water Act, DesertXpress Project, HUC 8 Mojave and Coyote - Cuddeback Lakes Watersheds, San Bernardino County, California, Current Preferred Segment 3 Alt B, Map Sheet C202

PL0703