



Photograph A

Date: 04-26-13

Photopoint 1, photos A-D are sweeping overview shots moving from north to southwest across the Site. This photo is looking at the northern half of the mitigation site, bound by the dirt road to the right and existing riparian vegetation in the background. The yellow mustard will be restored or covered by soil.



Photograph B

Date: 04-26-13

Photopoint 1, this photo is looking northwest over the Site. Not the few native shrubs and large non-native eucalyptus tree in the center of the picture. The shrubs will be saved and the eucalyptus tree removed.



Photograph C

Date: 04-26-13

Photopoint 1, this photograph is looking west over the Site (flat area in center of picture). Two of the three Canary Island date palms in the mitigation site are visible here. All three of these palm trees will be removed during the mitigation effort.

Photograph D



the final picture in the panorama of the Site and shows all three palm trees and the confluence of Lopez Canyon into Los Peñasquitos Creek in the background. The mitigation site extends to the riparian vegetation, but includes the willow just beyond the palm trees, this tree will be saved.



APPENDIXA



PhotographE

Date: 04-10-13

Photopoint 2, looking northeast from the center of the Site. The eucalyptus to be removed is visible in the background, will a native shrub that will be avoided is the closer shrub. The dead vegetation is composed of nonnative species.

Photograph F

Date: 04-10-13

Photopoint 2, looking southwest from the center of the Site. A palm tree and dead teasel are seen to the left and in the foreground of the picture. These species will be removed. Assorted non-native grasses are visible coming up in the rest of the picture.



Memorandum

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To: Mark Tucker

From: Julie Stout and Sundeep Amin

Subject: Jurisdictional Delineations for Proposed Mitigation Sites within Los Peñasquitos Canyon Preserve

The purpose of this memo is to document the methods and results of the delineation and jurisdictional determination conducted at two potential mitigation sites within Los Peñasquitos Canyon Preserve (Figures 1 and 2). The purpose of the delineation was to identify and map the location and extent of the limits of local, state, and federal jurisdictional waters of including wetlands that would fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), California Coastal Commission (CCC), and the City of San Diego. The current Arid West Regional Supplement and Rapanos/Carabell guidance (Rapanos) were applied to the methods and results of this study when relevant. This wetland study also evaluated the extent of waters of the State that may fall under the jurisdiction of the California Department of Fish and Wildlife pursuant to Section 1602 of the Fish and Game Code of California (Streambed Alteration Agreements) or the Porter-Cologne Act regulating waste discharge into waters of the State. This report is for use in the verification process with Local, State and Federal regulators and is intended to be submitted to the regulatory agencies for review and verification.

Methods

Site visits were conducted by URS biologists Julie Stout and Catherine MacGregor on April 4, 2013 and Julie Stout and Sundeep Amin on April 19, 2013. The initial site visits included vegetation mapping of the mitigation areas plus a 150-foot buffer and compilation of a plant species list. Areas with hydrophytic plant species were examined more closely to determine the wetland boundary. Initial delineation was conducted visually based on vegetation indicators. A three parameter wetland delineation was conducted in accordance with the 1987 Corps Manual and 2006 Arid West Supplement. Wetland waters of the U.S. were sampled using the general methodology detailed in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Corps Manual) for wetlands less than 5 acres in size. Sample points were chosen based on vegetation community mapping and considered visible transitions in vegetation composition and topographical changes. Additional soil pits were created to further document the wetland and upland conditions on site during the subsequent site visit and confirm wetland conditions in the southeastern corner of the site.

The definition of the growing season and the basis of determining and recording indicators for hydrophytic vegetation, hydric soils, and wetland hydrology was the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (Arid West Supplement). Both the Corps Manual and Arid West Supplement were used for the determination and evaluation of any normal circumstances, atypical situations, and problem area wetlands. All Corps and CDFW jurisdictional areas were also assumed to be under the jurisdiction of the RWQCB and the CCC.

Results

El Cuervo al Oeste-The western mitigation area included both upland and wetland areas within the current mitigation site boundary (Figure 1). Freshwater marsh and disturbed wetland overlapped the southwestern and southeastern portions of the proposed mitigation area. The riparian vegetation associated with Los Peñasquitos Creek is considered to be to be jurisdictional wetlands for all agencies. A summary of the delineation results and determinations El Cuervo al Oeste is provided in Table 1 below.

JDSP No.	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Jurisdictional Wetland (Y/N)
1	-	-	-	Ν
2	Х	Х	х	Y
4	-			Ν
5	Х	Х	Х	Y
6	Х	Х	Х	Y
7	-	-	-	N

Table 1. Summary of Delineation Results and Jurisdictional Determinations for El Cuervo al Oeste

El Cuervo del Sur-The southern mitigation area included both upland and wetland areas (Figure 2). The site is surrounded to the North and West by riparian and wetland vegetation. A small patch of wetlands was mapped within the western boundary. This area meets the state definitions of wetlands and is assumed to be Corps jurisdictional under the PJD approach. A summary of the delineation results and determinations for the El Cuervo del Sur is provided in Table 2 below.

JDSP No.	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Jurisdictional Wetland (Y/N)
3	-	-	-	Ν
8	Х	-	-	Y
4	-	-	-	Ν

Recommendations

It is recommended that the downstream boundary of both mitigation areas be revised to avoid wetland impacts. Suggested boundary revisions are shown on Figures 1 and 2.



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WETLAND DETERMINATION DATA FORM – Arid West Region

pplicant/Owner:	·	City/County: <u>\C4</u>	<u>A Dicyo</u> Sampling Date: <u>414/13</u>
vestigator(s): J. Stizit. C. Mac Grac GOC		Section Township (State: <u>CT</u> Sampling Point: <u>FI+</u>
andform (hillstope, terrace, etc.): Flood + to cruco		Seculi, Township, F	Range:
Ibregion (I BP): C20	<u> </u>	Local relief (concave	e, convex none): Slope (%):
bill Man Linit Name: CMIM SILE Losh	tat:	<u> 191 1957, 11</u>	Datum:
	<u></u>		NWI classification: freshwater ever
e climatic / hydrologic conditions on the site typical for this t	time of ye	ear? Yes X No	(If no, explain in Remarks.)
e Vegetation, Soil, or Hydrology sig	nificantly	disturbed? Are	e "Normal Circumstances" present? Yes No
e Vegetation, Soil, or Hydrology nai	turally pro	oblematic? (If r	needed, explain any answers in Remarks.)
Altach site map si	nowing	sampling point	locations, transects, important features, etc.
hydrophytic Vegetation Present? Yes No	<u>X</u>	is the Sample	ad Area
lydric Soil Present? Yes No	<u>></u>	within a Wotle	
Vetiand Hydrology Present? Yes No	$\underline{\mathbf{X}}$		
ernarks.			
GETATION – Use scientific names of plants	j .		
ee Stratum (Plot size:	Absolute	Dominant Indicator	Dominance Test worksheet:
	<u>% Cover</u>	<u>Species?</u> Status	Number of Dominant Species
3 3 B			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata: (B)
apling/Shrub Stratum (Plot size:		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
			Total % Course f
	3		OPL species
			$\frac{1}{40} \times \frac{1}{20} \times \frac{1}{20}$
a		= Total Cover	FACIL species 70 $x_3 = 100$
rb Stratum (Plot size:)			$\frac{1}{100} \text{ species} \qquad \frac{1}{100} \text{ x}_{4} = \frac{1}{100} \text{ y}_{5} = \frac{1}{100} \text{ y}_{5$
Cyllodon dactylon -	70_	Y FACU	$\frac{1}{2} = \frac{1}{2} = \frac{1}$
Brownus diandrus	5_	N UPL	
DISTICUTES SPICATOR	70	-X HAC	Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
	······································		Dominance Test is >50%
			— Prevalence Index is ≤3.0 ¹
			Morphological Adaptations ¹ (Provide supporting
			data in Remarks or on a separate sheet)
odv Vine Stratum (Plot size:	<u>115</u>	= Total Cover	Problematic Hydrophytic Vegetation' (Explain)
	· 3		Indicators of hudden add and the state
			be present, unless disturbed or problematic.
		= Total Cover	Hydrophytic
	Biotic Cru		Vegetation X
	Sec. 10 (11) 1 (11)		

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Sampling Point: P.H 1

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Profile Desc	cription: (Describe	to the depth	needed to docun	nent the	indicator	or contirm	n the absence of indicators.)
Depth	Matrix		Redo	Feature	s	12	Touturo Damarke
(inches)	Color (moist)	%	Color (moist)	%	Type'	_LOC	
1-7	7.54R312	80					Sillycury
	7.5 YR 4/3	20					entrant ceilox
7-17	7540212	99-99	7, SYL S/L	1-2	<u> </u>	M	" moist no saturation
1 10	(1) 10 1/2		1.21(1-1A	<u> </u>			
3	- <u></u>			·		<u></u>	
				•			
	- <u></u>			·			
				•			
¹ Type: C=C	Concentration, D=Dep	letion, RM=	Reduced Matrix, CS	S=Covere	ed or Coate	ed Sand G	irains. ² Location: PL=Pore Lining, M=Mathx.
Hydric Soil	Indicators: (Applic	able to all l	RRs, unless othe	rwise no	ted.)		Indicators for Problematic Hydric Solis .
Histoso	ol (A1)		Sandy Red	ox (S5)			1 cm Muck (A9) (LRR C)
Histic E	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck (A10) (LKK B)
Black H	Histic (A3)		Loamy Muc	ky Miner	al (F1)		Keaucea Venic (F 18) Red Parent Material (TE2)
Hydrog	gen Sulfide (A4)	_	Loamy Gle	yed Matri	x (F2)		Reu Falent Watendi (154) Other (Evolain in Remarks)
Stratifie	ed Layers (A5) (LRR	C)	Depleted M	atrix (F3)			
1 cm M	Auck (A9) (LRR D)	- (844)	Redox Dari	Surrace	(FO) ICO (F7)		
Deplete	ed Below Dark Surfac	ce (A11)	Depieted D	aik Juild	(F8)		³ Indicators of hydrophytic vegetation and
Thick E	Jark Surrace (A12)		Vernal Poo	ls (F9)			wetland hydrology must be present,
Sandy	Gleved Matrix (S4)		vonari 00				unless disturbed or problematic.
Sandy	Gleyeu Wattik (04)						
Tune	a cayer (in process).						
Type:							Hydric Soil Present? Yes No
Depth (i	inches):						And of SEd and a with
Remarks:	Soils not	moni	c-not me	ering	F6 a	g viten	WHE OF 20 WHOLOG WHOL
	marrix value	e de 3	, chown 2	/		ě.	
HYDROL	OGY				8		
Wetland H	lydrology Indicators	5:					o the line to the stars (0 as more required)
Primary In	dicators (minimum of	one required	d; check all that app	oly)	······		Secondary Indicators (2 or more required)
Surfac	ce Water (A1)		Salt Crus	t (B11)			Water Marks (B1) (Riverine)
High V	Water Table (A2)		Biotic Cru	ust (B12)			Sediment Deposits (B2) (Riverine)
Satura	ation (A3)		Aquatic I	nvertebra	ites (B13)		Drift Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrive	erine)	Hydroger	n Sulfide	Odor (C1)		Drainage Patterns (B10)
Sedim	nent Deposits (B2) (N	onriverine)	Oxidized	Rhizospl	heres alon	g Living Ro	oots (C3) Dry-Season Water Table (C2)
	Deposits (B3) (Nonriv	erine)	Presence	of Redu	ced Iron (C4)	Crayfish Burrows (C8)
Surfac	ce Soil Cracks (B6)		Recent li	on Redu	ction in Til	led Soils ((C6) Saturation Visible on Aerial Imagery (C9)
Inund	ation Visible on Aeria	i Imagery (B	7) Thin Muc	k Surfac	e (C7)		Shallow Aquitard (D3)
	r-Stained eaves (RQ))	Other (E	xplain in	Remarks)		FAC-Neutral Test (D5)
vvaler	envatione"	<u>, </u>				< 2	
		Yes	No X Depth (i	nches):			
Current A	Untor Urocont'	163					
Surface W	Vater Present?	Vee	No X Denth (i	nches).			
Surface W Water Tab	vater Present?	Yes	No <u>C</u> Depth (i	nches): _		we	atland Hydrology Present? Yes No X
Surface W Water Tab	vater Present? ble Present? n Present? capillary fringe)	Yes Yes	No <u> </u>	nches): _ nches): _		We	etiand Hydrology Present? Yes No <u>X</u>
Surface W Water Tab Saturation (includes of Describe	vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u>C</u> Depth (i No <u>C</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes) Describe I	Vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes Im gauge, m	No <u> </u>	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes of Describe I	vater Present? ble Present? n Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u></u> Depth (i No <u></u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No <u>X</u>
Surface W Water Tab Saturation (includes of Describe f	vater Present? ole Present? o Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u>X</u> Depth (i No <u>X</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes d Describe f	vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u>X</u> Depth (i No <u>X</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etiand Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes Describe f	vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes Im gauge, m	No <u>X</u> Depth (i No <u>X</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etiand Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes of Describe I Remarks:	vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u>X</u> Depth (i No <u>X</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No X
Surface W Water Tab Saturation (includes) Describe I Remarks:	vater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes m gauge, m	No <u>X</u> Depth (i No <u>X</u> Depth (i onitoring well, aeria	nches): _ nches): _ I photos,	previous i	mspections	etland Hydrology Present? Yes No X

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: El Wervo West Cit	y/County: SCM Diedo Sampling Date: 4/4/12
Applicant/Owner:	State: CA Sampling Point: Pi+2
Investigator(s): J. Stovt, C. MacGregor Se	ection, Township, Range:
Landform (hillslope, terrace, etc.): <u>FLOOD FERTICE</u> Lo	pcal relief (concave) convex, none); Slope (%);
Subregion (LRR): <u>CLO</u>	9798,70 LONG: 364 0886, 16 Datum: 18155 84
Soil Map Unit Name: Chino Silt locm	NWI classification: For the water forcest 1/54
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no. explain in Remarks) with with
Are Vegetation, Soil, or Hydrology significantly dist	turbed? Are "Normal Circumstances" present? Yes X
Are Vegetation, Soil, or Hydrology naturally problem	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	
Hydric Soil Present? Yes X No	is the Sampled Area
Vetland Hydrology Present? Yes <u>No</u> No	
Nondika.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:	Absolute	Dominant Indicator	Dominance Test worksheet:
1.	<u>% Cover</u>	<u>Species?</u> Status	Number of Dominant Species
2	1		That Are OBL, FACW, or FAC: (A)
3			Total Number of Dominant
4			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)	2	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species $10 \times 1 = 10$
4			FACW species 5 x 2 = 10
5			FAC species $80 \times 3 = 240$
Herb Stratum (Plot size:		= Total Cover	FACU species $15 \times 4 = 05$
1 Saliconice Pacifica	10	N	UPL species x 5 =
2 Distichlis soicata	$-\frac{10}{80}$	V USL	Column Totals: (10 (A) 320 (B)
3. Frontenia salina	5	N FACW	Prevalence Index = B/A = _2.9
4. Cynodon ductyfon	15	N FACU	Hydrophytic Vegetation Indicators:
5			L Dominance Test is >50%
6			_X Prevalence Index is ≤3.0 ¹
8			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
	110	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	<u>-112</u>	- I OLDI COVEI	
1			¹ Indicators of hydric soil and wetland hydrology must
2			be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum A10		Total Cover	Hydrophytic Vegetation
Remarks:			Present? Yes X No
The second s			

Sampling Point: PHZ

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Liotile Dea	Motriv	0 110 uop	Redo	x Feature	s de			27 X =
Ueptn (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
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	ne VR AIN	10			=		- <u>.</u>	
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	GIZIS/N	30	0.04					000000
7-12	<u>1,54R312</u>	<u> 10</u>	10YRS16	10	<u> </u>	<u> </u>		prominer
							10	
- 4	-			-				
							- <u> </u>	
							. 2	
¹ Type: C=	Concentration, D=Depl	etion, RM	=Reduced Matrix, C:	S=Covere	d or Coate	d Sand C	Grains.	Location: PL=Pore Lining, M=Maurx.
Hydric So	il Indicators: (Applica	able to all	LRRs, unless othe	rwise not	ea.)		muicau	
Histos	ol (A1)		Sandy Red	ox (S5)				m Muck (A3) (LRR C)
Histic	Epipedon (A2)		Stripped M	atrix (S6) aku Minor	J /E1		2 G	fuced Vertic (F18)
Black	Histic (A3)		Loamy Muo	ky Minera	ai (F1) / (E2)			t Parent Material (TF2)
-X Hydro	gen Sulfide (A4)	•	Loamy Gle	yeu warb Iatriv /⊑?\	(Г4)		I\et	er (Explain in Remarks)
Stratifi	led Layers (A5) (LRR C	-)		k Surface	(F6)			···· · ·········
1 cm l	MUCK (A9) (LKK U)	ο (Δ11)	Denleted F	ark Surfa	ce (F7)			
Ueplei	Dark Surface (A12)		Redox Der	pressions	(F8)		³ Indicat	ors of hydrophytic vegetation and
Thick Sandy	Mucky Mineral (S1)		Vernal Poo	ols (F9)			wetla	nd hydrology must be present,
Sandy	v Gleved Matrix (S4)						unles	s disturbed or problematic.
Restrictiv	e Layer (if present):							
Type:								· · · · ·
Denth /	(inches):						Hydric \$	Soil Present? Yes 🔀 No
					-			
			<i>a</i>		7			
HYDROL	_OGY				2			
HYDROL Wetland	_OGY Hydrology Indicators:				2			
HYDROL Wetland	-OGY Hydrology Indicators: Indicators (minimum of c	: one requir	ed; check all that ap	oly)	2		Si	econdary Indicators (2 or more required)
HYDROL Wetland I Primary Ir Surfa	-OGY Hydrology Indicators: Indicators (minimum of c ace Water (A1)	: one requir	ed; check all that ap	oly) st (B11)			<u>Si</u>	econdary Indicators (2 or more required) Water Marks (B1) (Riverine)
HYDROL Wetland I Primary Ir Surfa High	_OGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2)	: one requir	ed; check all that app Salt Crus Biotic Cru	oly) st (B11) ust (B12)	2		<u>S</u> r	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine)
HYDROL Wetland I Primary Ir Surfa High X Satur	_OGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3)	: one requir	ed; check all that app Salt Crus Biotic Cru Aquatic I	oly) st (B11) ust (B12) nvertebrat	es (B13)		<u>S</u>	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver	: one requir rine)	ed: check all that app Salt Crus Biotic Cru Aquatic I Hydroge	oly) st (B11) ust (B12) nvertebrat n Sulfide (tes (B13) Ddor (C1)		<u>S</u> i	econdary Indicators (2 or more required) _ Water Marks (B1) (RiverIne) _ Sediment Deposits (B2) (Riverine) _ Drift Deposits (B3) (Riverine) _ Drainage Patterns (B10)
HYDROL Wetland I Primary Ir Surfa Satur X Satur Wate Sedir	_OGY Hydrology Indicators: ndicators (minimum of of ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No	nine)	ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge) Oxidized	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph	tes (B13) Ddor (C1) eres alon	g Living R	<u>St</u> 	econdary 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)
HYDROL Wetland Primary Ir Surfa High X Satur Wate Sedir Sedir Drift	-OGY Hydrology Indicators: ndicators (minimum of of ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (Non	rine) prine) priverine arine)	ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge) Oxidized Presence	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc	tes (B13) Odor (C1) ieres aloni ced Iron (C	g Living R 24)	<u>St</u> 	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
HYDROL Wetland Primary Ir Surfa High X Satur Wate Sedir Sedir Drift Surfa	-OGY Hydrology Indicators: ndicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6)	rine) ponriverine parine)	ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge b) Oxidized Presence Recent I	oly) st (B11) ust (B12) n vertebrat n Sulfide (Rhizosph e of Reduc ron Reduc	tes (B13) Odor (C1) Jeres along Ced Iron (C stion in Till	g Living R 24) ed Soils (<u>Si</u> oots (C3) C6)	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Satur Drift Surfa Surfa Inunc	-OGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial	rine) pnriverine prine) Imagery (ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge Oxidized Presence Recent I B7) Thin Mut	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface	tes (B13) Ddor (C1) teres along ced Iron (C titon in Till c (C7)	g Living R 24) ed Soils (Sr 	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Surfa Surfa Ununc	LOGY Hydrology Indicators: mdicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9)	rine) pnriverine prine) Imagery (ed: check all that app Salt Crus Biotic Cru Aquatic I Hydroge Noticized Presence Recent In B7) Thin Muc Other (E	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc con Reduc ck Surface xplain in F	tes (B13) Ddor (C1) teres along ced Iron (C tion in Till e (C7) Remarks)	g Living R 24) ed Soils (Si oots (C3) C6)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Lunc Field Ob:	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonrive ment Deposits (B2) (No Deposits (B3) (Nonrive ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations:	rine) pontiverine prine) Imagery (ed; check all that apy Salt Crus Biotic Cru Aquatic I Hydroge 0) Oxidized Presence Recent II B7) Thin Mut	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F	tes (B13) Odor (C1) peres along ced Iron (C ttion in Till (C7) Remarks)	g Living R 24) ed Soils (Si 	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Drift Surfa Field Ob Surface V	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations: Water Present?	rine) pne requir pnriverine erine) Imagery (Yes	ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge o) Oxidized Presence Recent II B7) Thin Muc Other (E	oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F	tes (B13) Ddor (C1) eres along ced Iron (C titon in Till c(C7) Remarks)	g Living R C4) ed Soils (<u>S</u> oots (C3) C6)	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C8 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Field Ob Surface V Water Ta	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations: Water Present?	rine) pne requir pnriverine prine) Imagery (Yes Yes	ed; check all that apy Salt Crus Biotic Cru Aquatic I Hydroge 0) Oxidized Presence Recent II B7) Thin Muc Other (E No Depth (bly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F inches): inches):	tes (B13) Ddor (C1) eres along ced Iron (C tion in Till c(C7) Remarks)	g Living R 24) ed Soils (<u>Sr</u> 	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Field Ob Surface V Water Ta Saturatio (includes Describe	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations: Water Present? In Present? In Present? In Present? In Present? In Present?	rine) pne requir pnriverine prine) Imagery (Yes Yes Yes	ed; check all that apy Salt Crus Biotic Cru Aquatic I Hydroge 0) Oxidized Presence Recent II B7) Thin Muc Other (E No Depth (No Depth (Depth (Depth (bly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F inches): inches): inches): al photos,	tes (B13) Odor (C1) eres along ced Iron (C tion in Till e (C7) Remarks)	g Living R 24) ed Soils (oots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Field Ob Surface V Water Ta Saturatio (includes Describe	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations: Water Present? Water Present? In Present? In Present? Recorded Data (strear	rine) pne requir pnriverine srine) Imagery (Yes Yes Yes Yes	ed; check all that apy Salt Crus Biotic Cru Aquatic I Hydroge Oxidized Presence Recent II B7) Thin Muc Other (E No Depth (No Depth (No Depth (No Depth (No Depth (oly) at (B11) ust (B12) n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F inches): inches): inches): _ al photos,	tes (B13) Ddor (C1) ieres aloni ced Iron (C ttion in Till c (C7) Remarks)	g Living R (24) ed Soils (Soots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High Xatur Wate Drift Drift Surface V Water Ta Saturatio (includes Describe	LOGY Hydrology Indicators: mdicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) (Nonriver ment Deposits (B2) (No Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial er-Stained Leaves (B9) servations: Water Present? m Present? m Present? capillary fringe) Recorded Data (strear	rine) pnriverine prine) Imagery (Yes Yes Yes Yes	ed; check all that app Salt Crus Biotic Cru Aquatic I Hydroge Oxidized Presence Recent II B7) Thin Muc Other (E No Depth (No Depth (No Depth (No Depth (oly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ck Surface xplain in F inches): inches): al photos,	tes (B13) Ddor (C1) teres along ced Iron (C tion in Till e (C7) Remarks)	g Living R 24) ed Soils (oots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surface V Water Ta Saturatio (includes Describe Remarks	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) ar Marks (B1) (Nonriver ment Deposits (B2) (Non Deposits (B3) (Nonriver ace Soil Cracks (B6) dation Visible on Aerial ar-Stained Leaves (B9) servations: Water Present? able Present? able Present? able Present? ace apillary fringe) Recorded Data (stream	rine) ponriverine ponriverine prine) Imagery (Yes Yes Yes Yes	ed; check all that app 	bly) st (B11) ust (B12) nvertebrat n Sulfide (Rhizosph e of Reduc ck Surface xplain in F inches): inches): al photos,	es (B13) Ddor (C1) reres along ced Iron (C tion in Till c (C7) Remarks)	g Living R 24) ed Soils (etland Hydro	econdary Indicators (2 or more required)
HYDROL Wetland I Primary Ir Surfa High X Satur Wate Sedir Drift Surfa Inunc Wate Field Ob Surface V Water Ta Saturatio (includes Describe Remarks Woke	LOGY Hydrology Indicators: Indicators (minimum of c ace Water (A1) Water Table (A2) ration (A3) ar Marks (B1) (Nonrive ment Deposits (B2) (Nor Deposits (B3) (Nonrive ace Soil Cracks (B6) dation Visible on Aerial ar-Stained Leaves (B9) servations: Water Present? able Present? able Present? Capillary fringe) Recorded Data (strear CADA (Stream)	rine) ponriverine priverine priverine prine) Imagery (Yes Yes Yes Yes	ed; check all that app 	bly) st (B11) ust (B12) nvertebrai n Sulfide (Rhizosph e of Reduc ron Reduc ck Surface xplain in F inches): inches): al photos,	ees (B13) Ddor (C1) peres along ced Iron (C tion in Till c (C7) Remarks)	g Living R 24) ed Soils (oots (C3)	econdary Indicators (2 or more required)

WETLAND DETERMINATION D	ATA FORM – Arid West Region
Project/Site: PCA 1, PiF 3 City/Co	unty: <u>Scn Diego</u> Sampling Date: <u>4/4/13</u>
Investigatories: (11)P. Straut 3 (CHMO TIMP. MCG GREGOD	
Landform (hillstope, ferrace etc.): Local r	relief (concave, convex, none): <u>fat</u> Slope (%): <u>()</u>
Subregion (LRR):	NWI classification: SIGNING PONTIENT
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	s X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbe	ed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problemati	c? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing same	pling point locations, transects, important features, etc. $\frac{\mathcal{RE}}{\mathcal{R}}$
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	is the Sampled Area within a Wetland? Yes No
Remarks:	

VEGETATION – Use scientific names of plants.

Trac Stratum (Plataiza:	Absolute	Dominant Indicator	Dominance Test worksheet:
1)	% Cover		Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant
4	0		Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species O (A/B)
1			Prevalence Index worksheet:
2	<u> </u>		Total % Cover of:Multiply by:
3	·		OBL species x 1 =
4			FACW species x 2 =
5		10	FAC species $x^3 = $
Herb Stratum (Plot size:	·	_= Total Cover	FACU species $4 = 340$
1 He min that there echipoles	65	V FACU	UPL species $10 \times 5 = 50$
2 SINGDIS CIENTIS	10	N IDI	Column Totals: 05 (A) 500 (B)
3. <u><u>x</u></u>			Prevalence Index = B/A =
4	·		Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
	95	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)			
12			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	= Total Cover	Hydrophytic Vegetation Present? Yes No X
Remarks: ant colony in soil at	r oit	location	e t
- 1			
			ж.

l

Sampling Point: **P.+3**

Profile Description: (Describe to the depth needed to document the indicator or cont	firm the absence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ²	Texture Remarks
()-12 7.5YR 312 100	cicus oum
	_
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand	Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)
Cm Muck (A9) (LRR D) Constraints Surface (F0) Depleted Datk Surface (F7)	Δ
Thick Dark Surface (A12) Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present.
Sandy Gleved Matrix (S4)	unless disturbed or problematic.
Restrictive Layer (if present):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes No X
l Remarks:	
Remarks:	2
Remarks:	
Remarks:	
Remarks:	Ĩ
HYDROLOGY	
HYDROLOGY Wetland Hydrology Indicators:	
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Utater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2)
Kemarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Staturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)

				NN6 Vol
W	ETLAND DETERN	MINATION DATA FORM	I – Arid West Regio	n
Project/Site: <u>EI CUEVO</u> Applicant/Owner:	West .	City/County:	State:	Sampling Date: <u>4/19/1</u> 3 Sampling Point: <u>Pi+ 4</u>
Landform (hillslope, terrace, etc.): Subregion (LRR): 20 Soil Map Unit Name: Are climatic / hydrologic conditions on the Are Vegetation, Soil, or Are Vegetation, Soil, or SUMMARY OF FINDINGS – A	SIF LOCM he site typical for this ti Hydrology sigr Hydrology natu ttach site map sh	Local relief (concave Local relief (concave Mt: 4799 33, 38 me of year? Yes <u>></u> No nificantly disturbed? Are urally problematic? (If r	conge	Slope (%): 45,52 Datum: <u>WGS 84</u> cation: Remarks.) present? Yes <u>X</u> No ers in Remarks.)
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Yes No _ Yes No _ Yes No _	Is the Sample within a Wetl	and? Yes	No

VEGETATION – Use scientific names of plants.

	Absolute Dominant Indicator	Deminence Test werkehast
Tree Stratum (Plot size:)	% Cover Species? Status	Dominance Test worksneet:
1.		Number of Dominant Species
2		mar Are OBL, FACVV, of FAC: (A)
2		Total Number of Dominant 2
3		Species Across All Strata: (B)
4		
	= Total Cover	That Are OBL EACW or EAC: 50 (A/D)
Sapling/Shrub Stratum (Plot size:)		(A/B)
1		Prevalence Index worksheet:
2	£ 2	Total % Cover of Multiply by:
3.	· · · · · · · · · · · · · · · · · · ·	OBI species 10 x1 -
4		
5		FACW species $x_2 = \frac{1}{2}$
5		FAC species $\underline{-10} \times 3 = \underline{-100} \times 3 = -$
Herb Stratum (Plot size)	= Total Cover	FACU species x 4 =
reid stratum (Piot size:	70 11 10	UPL species $20 \times 5 = 100$
	V UPL	Column Totals: (JD (A) 7.7.0 (B)
2. Lollum periore	TO V HAC	40 0 10
3. Horden sp.	10 NI INK	Prevalence index = B/A =
4		Hydrophytic Vegetation Indicators:
5.		Dominance Test is >50%
6	•	
7		Frevalence index is \$3.0
		Morphological Adaptations' (Provide supporting
8		Debte and with the bulk of a separate sneet)
¥	<u> </u>	Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum (Plot size:)		
1		¹ Indicators of hydric soil and wetland hydrology must
2		be present, unless disturbed or problematic.
	= Total Cover	Hydrophytic
		Vegetation
% Bare Ground in Herb Stratum % Cover	of Biotic Crust	Present? Yes <u>No X</u>
Remarks:		
least title		
And a main 2 all water	a harden - Pri	above where would call to
man your - son , menou	si minerin - Ma	warne more would still be
	>>	even in this turned out to
	b	can oblighte spects
US Army Corps of Engineers		Arid Most Marrian 2.0

Arid West - Version 2.0

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3	U	I	L

Sampling Point: ____

	Redux realures	
(inches) Color (moist) %	Color (moist) % Type' L	oc ² Texture Remarks
-20 7.5YR 3/2 100		Sindy locan
D-1 (NAY B3/2 100		claytown
	·	
Type: C=Concentration, D=Depletion, RM	M=Reduced Matrix, CS=Covered or Coated S	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a	II LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solls":
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	3 and a stars of hudson hudio version and
Thick Dark Surface (A12)	Redox Depressions (F8)	indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	welland hydrology must be present,
Sandy Gleyed Matrix (S4)		
Restrictive Layer (if present):		· · ·
Туре:		
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
1 1		
IYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1)	red; check all that apply) Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Otherwise (A2)	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	<u>Secondary Indicators (2 or more required)</u> <u>Water Marks (B1) (Riverine)</u> Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv	<u>Secondary Indicators (2 or more required)</u> <u>Water Marks (B1) (Riverine)</u> Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Uring Roots (C3) Dry-Season Water Table (C2) Cravitsh Burrows (C8)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	red; check all that apply)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Uring Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Setumation Visible on Aerial Imageny (
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Uning Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) uing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Staturation Visible on Aerial Imagery (0) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red: check all that apply)	Secondary Indicators (2 or more required

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WETLAND DETERMINATION DATA FORM - Arid West Region

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Project/Site: El CUENO West	City/County:	Sampling Date: <u>4(19/13</u>
Applicant/Owner:	State:	Sampling Point: Pit5
Investigator(s):	Section, Township. Range:	
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none)	: Slope (%):
Subregion (LRR):	_ 1 X: 479955,83 Long: 36	408 Datum:
Soil Map Unit Name:	N	WI classification:
Are climatic / hydrologic conditions on the site typical for th Are Vegetation, Soil, or Hydrology	nis time of year? Yes <u> </u>	explain in Remarks.) nstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? (It needed, explain	any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	No Is the Sampled Area No within a Wetland?	Yes <u>X</u> No

VEGETATION – Use scientific names of plants.

1

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover Species? Status</u>	Number of Dominant Species
1. Salix lasiolepsiz	65 Y FACN	That Are OBL, FACW, or FAC: (A)
2		
		Total Number of Dominant
J		Species Across All Strata:
4		Percent of Dominant Species
Operation - (Other the Otherstown - (Other Friday	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		
1		Prevalence index worksneet:
2		Total % Cover of: Multiply by:
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)		
1. Anemorsis californica	20 V 081	Column Totales (A)
2 Salv lasislassiz		(A)(B)
2 BOONUS SP.	2 N	Prevalence Index = B/A =
S. Dieliws of r		Hydrophytic Vegetation Indicators:
4		
5		
6		Prevalence Index is ≤3.0'
7		Morphological Adaptations ¹ (Provide supporting
8.		data in Remarks or on a separate sheet)
	72 = Total Cover	Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum (Plot size:)		
1.		¹ Indicators of hydric soil and wetland hydrology must
2		be present, unless disturbed or problematic.
		Hydrophytic
		Vegetation
% Bare Ground in Herb Stratum % Cove	r of Biotic Crust	Present? Yes No
Remarks:		l
LOGE Litter 78%		6

SWS

Sampling Point: Pits

Depth <u>Matrix</u>	Redox Features	_
(inches) Color (moist) %	Color (moist) % Type' Loc ²	Texture Remarks
0-2 104K 312 100		clay lam
2-20 10YR 3/2 100		Scrilylam
	<u> </u>	
	······································	
	in the second	
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand	Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	, 1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Straufied Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	3
Sandu Muslu Minaral (S4)	Redox Depressions (F8)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	vemai Pools (F9)	wetland hydrology must be present,
Restrictive Laver (if present):		uniess disturbed or problematic.
Tunor		
Type		X
Depth (inches):		Hydric Soil Present? Yes / No
Remarks:		
		20 C C C C C C C C C C C C C C C C C C C
		=
HYDROLOGY		
HYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	; check all that apply) Salt Crust (B11)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	<u>; check all that apply)</u> Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) X Saturation (A3)	<u>; check all that apply)</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	<u>; check all that apply)</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	<u>; check all that apply)</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ▲ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) coots (C3) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 	: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) ↓ ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ▲ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Inotes (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	: check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Secondary Indicators (2 or more required) ↓ ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ▲ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) toots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	<u>: check all that apply)</u> <u>Salt Crust (B11)</u> Biotic Crust (B12) <u>Aquatic Invertebrates (B13)</u> Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7)	Secondary Indicators (2 or more required) ↓ ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) toots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 K Water-Stained Leaves (B9)	 <u>check all that apply</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks) 	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ▲ Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B10) Loots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Water-Stained Leaves (B9) Field Observations:	 <u>check all that apply</u> Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks) 	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) costs (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) toots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	Secondary Indicators (2 or more required) ↓ ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) toots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	Secondary Indicators (2 or more required) ↓ ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) toots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drift Deposits (B10) Costs (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) etland Hydrology Present? Yes No w), if available:
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	check all that apply)	Secondary Indicators (2 or more required) ↓ Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) ↓ Drift Deposits (B3) (Riverine) Drainage Patterns (B10) costs (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	: check all that apply)	

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TVVII

WETLAND DETERMINATION DATA FORM – Arid West Region

plicant/Owner:			State: Sampling Point: PITE	2
estigator(s):	Section	n, Township, Rar	nge:	
ndform (hillslope, terrace, etc.):	Local	relief (concave, o	convex, none): Slope (%):	
bregion (LRR):	_ 1 <u>X 4800</u>	OBAS_	Long: 3640937,03 Datum: WE	25
íl Map Unit Name:			NWI classification:	
e climatic / hydrologic conditions on the site typical for the	his time of year? Ye	es No	(If no, explain in Remarks.)	
e Vegetation Soil or Hydrology	significantly disturt	ed? Are "	'Normal Circumstances" present? Yes No	
e Vegetation Soil or Hydrology	naturally problema	itic? (If ne	eeded, explain any answers in Remarks.)	
UMMARY OF FINDINGS – Attach site maj	showing sam	pling point l	ocations, transects, important features,	, etc
	No	in the Complet	4 4 - 00	
Ivdric Soil Present? Yes	No	is the sampled	nd2 Yes No	
Netland Hydrology Present? Yes	No	WILLING A WORLD		
Remarks:				
EGETATION – Use scientific names of pla	Ints.	ninant Indicator	Dominance Test worksheet	
Tree Stratum (Plot size:)	<u>Absolute</u> Don <u>% Cover</u> Spe	cies? <u>Status</u>	Number of Dominant Species	
1			That Are OBL, FACW, or FAC:	(A)
2			Total Number of Dominant	
3			Species Across All Strata:	(B)
4			Percent of Dominant Species	
Conline/Shruh Stratum /Diot eize/	= To	tal Cover	That Are OBL, FACW, or FAC:	(A/B)
			Prevalence Index worksheet:	<u> </u>
2.			Total % Cover of: Multiply by:	-
3			OBL species x 1 =	•
4		<u> </u>	FACW species x 2 =	•
5			FAC species x 3 =	
	= To	tal Cover	FACU species X 4 =	2
Herb Stratum (Plot size:)	10		UPL species x 5 = Column Totals: (A)	/P\
2 - Lan Avida arrivelans	<u>ς</u>		(A)	. (5)
3 Aneneosis californica	an Bo	()BL	Prevalence Index = B/A =	-
+ Bristly OX-tongol	-5-		Hydrophytic Vegetation Indicators:	
5. ELOCHANTS Macrostachya			Dominance Test is >50%	
6. Junus autus	_2	HACW	Prevalence Index is ≤3.0'	
> Helminthother echicales	<u> </u>		Morphological Adaptations' (Provide supporti data in Remarks or on a separate sheet)	ng
8			Problematic Hydrophytic Vegetation ¹ (Explain	1)
	= To	otal Cover		
Mandu Mino Stratum (Biotaize)			¹ Indicators of hydric soil and wetland hydrology m	ust
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size:) 1		5 8		
Woody Vine Stratum (Plot size:) 1	= Te	otal Cover	Hydrophytic	
Woody Vine Stratum (Plot size:) 1		otal Cover	Hydrophytic Vegetation Present? Yes No	

SOI	L
-----	---

Donth					
Deptil <u>Matrix</u>	Redox F	eatures			
(inches) Color (moist) %	Color (moist)	% Type	_Loc ² T	exture	Remarks
0-4 1,54RS/2 60	57R 4/6 -	<u>40 cs, c</u>	-NARL S	Sund	
4-14 7.54R2.5/1 100				VKL SA	he
				<u> </u>	
			<u> </u>		
			<u> </u>	1	
				1	
1					
Type: C=Concentration, D=Depletion, RM=F	educed Matrix, CS=C	overed or Coated	d Sand Grains.	² Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soli indicators: (Applicable to all L	RRs, unless otherwis	se noted.)	, in	dicators for	Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)		1 cm Muc	k (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix	(S6)		2 cm Muci	k (A10) (LRR B)
Black Histic (A3)	Loamy Mucky N	Mineral (F1)		Reduced \	Vertic (F18)
A Stratified Lavers (A5) (LPR C)	Loamy Gleyed	Matrix (F2)		Red Parer	nt Material (TF2)
1 cm Muck (A9) (I RR D)	Depleted Matrix	(F3)	·	Other (Exp	plain in Remarks)
Depleted Below Dark Surface (A11)	Neuox Dank Sui	Nace (FO) Surface (E7)			
Thick Dark Surface (A12)	Reday Denress	ions (FR)	31	dianton of t	
Sandy Mucky Mineral (S1)	Vernal Pools (F	9)	in	wetlend bud	rology must be area and
Sandy Gleyed Matrix (S4)				unless distu	thed or problematic
Restrictive Layer (if present):					bed of problematic.
Туре:	_				
Depth (inches):			Hvd	ric Soil Pro	cont2 You X Ma
Remarks:					Sentr res NO
IYDROLOGY	······				
HYDROLOGY Wetland Hydrology Indicators:					
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; o	theck all that apply)			Secondary	Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1)	theck all that apply))		<u>Secondar</u>	/ Indicators (2 or more required) Marks (B1) (Riverine)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	<u>check all that apply)</u> Salt Crust (B11 Biotic Crust (B1) 12)		<u>Secondar</u> Water Sedim	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	<u>check all that apply)</u> Salt Crust (B11 Biotic Crust (B1 Aquatic Inverte) 12) brates (B13)		<u>Secondar</u> Water Sedim Drift D	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	check all that apply) Salt Crust (B11 Biotic Crust (B1 Aquatic Inverte Aquatic Inverte	1) 12) brates (B13) de Odor (C1)		Secondary Water Sedim Drift D Draina	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) age Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	 <u>check all that apply</u> Salt Crust (B11 Biotic Crust (B1 Aquatic Inverte Hydrogen Sutfic Oxidized Rhizo) 12) brates (B13) de Odor (C1) spheres along Li	ving Roots (C3)	Secondary Water Sedim Drift D Draina Dry-Se	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) tege Patterns (B10) teason Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	 <u>Sheck all that apply</u> Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sulfid Oxidized Rhizo Presence of Re) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4)	ving Roots (C3)	Secondary Water Sedim Drift D Draina Dry-Se Crayfis	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) tego Patterns (B10) teason Water Table (C2) sh Burrows (C8)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a surface Water (A1) 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)	Sheck all that apply)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) tege Patterns (B10) teason Water Table (C2) the Burrows (C8) ttion Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Sheck all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surface) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7)	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo	<u>/ Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) tege Patterns (B10) teason Water Table (C2) the Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	 check all that apply) Salt Crust (B11 Biotic Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sutfic Oxidized Rhizo Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfa Other (Explain int)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks)	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfit Satura Shallo FAC-N	<u>P Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) teposits (B3) (Riverine) tego Patterns (B10) teason Water Table (C2) the Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a second se	check all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Hydrogen Sutfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfic Other (Explain in Muck Surfic)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks)	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	<u>A Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) tego atterns (B10) teason Water Table (C2) the Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a stream of	 check all that apply) Salt Crust (B11 Biotic Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfa Other (Explain i Depth (inches)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks)	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfie Satura Shallo FAC-N	V Indicators (2 or more required) Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) teposits (B3) (Riverine) teposits (B10) teason Water Table (C2) the Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) teutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the second	check all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfide Other (Explain in the second s	1) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7) in Remarks) :	ving Roots (C3) Soils (C6)	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	A Indicators (2 or more required) Marks (B1) (Riverine) Peposits (B2) (Riverine) Peposits (B3) (
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No	Sheck all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfic Other (Explain in Depth (inches) Depth (inches) Depth (inches)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7) in Remarks) :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	<u>A Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) teposits (
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Describe Recorded Data (stream gauge, monitic	check all that apply) Salt Crust (B11) Biotic Crust (B11) Aquatic Inverte Hydrogen Sutfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfic Other (Explain in Other (Explain in Depth (inches) Depth (inches) Depth (inches)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks) : :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	<u>A Indicators (2 or more required)</u> Marks (B1) (Riverine) ment Deposits (B2) (Riverine) meposits (B3) (Riverine) mage Patterns (B10) meason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5) sent? Yes <u>No</u>
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Saturation Present? Yes No Saturation Present? Saturation Present? Yes Saturation Present? Yes No Saturation Present? Sufface Recorded Data (stream gauge, monitor)	check all that apply)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks) :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfie Satura Shallo FAC-N drology Pre-	<u>Principations (2 or more required)</u> Marks (B1) (Riverine) Marks (B1) (Riverine) Marks (B3) (Riverine) Mage Patterns (B10) Mage Patterns (B10) Mage Patterns (B10) Mage Patterns (C2) Sh Burrows (C8) S
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a star star star star star star star st	check all that apply)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks) : :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	<u>A Indicators (2 or more required)</u> Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) teposits (B3) (Riverine) tege Patterns (B10) teason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) teutral Test (D5) sent? Yes <u>No</u>
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a start of	check all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfa Other (Explain i Other (Explain i Depth (inches) Depth (inches) Diring well, aerial photod) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7) in Remarks) : : : : : : : : : : : : :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N drology Pre ble:	A Indicators (2 or more required) Marks (B1) (Riverine) tent Deposits (B2) (Riverine) teposits (B3) (Riverine) teposits (B3) (Riverine) teposits (B10) teason Water Table (C2) the Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) teutral Test (D5) sent? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes No Yes Saturation Present? Yes Describe Recorded Data (stream gauge, monitor Remarks:	Sheck all that apply) Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Aquatic Inverte Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfa Other (Explain in Other (Explain in Depth (inches) Depth (inches) Depth (inches) Depth (inches) Depth (inches) Depth (inches) Doring well, aerial photodical strength (inches)	1) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7) in Remarks) :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N	<pre>/ Indicators (2 or more required) Marks (B1) (Riverine) eeposits (B2) (Riverine) eeposits (B3) (Riverine) eeposits (</pre>
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Saturation Present? Yes No Saturation Present? Yes Saturation Present? Yes Sa	Salt Crust (B11 Salt Crust (B11 Biotic Crust (B11 Aquatic Inverte Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfic Other (Explain in Other (Explain in Depth (inches) Depth (inches) Depth (inches) Depth (inches) Depth (inches) Depth (inches)) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled s ace (C7) in Remarks) :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N drology Pre ble:	<pre>/ Indicators (2 or more required) Marks (B1) (Riverine) ment Deposits (B2) (Riverine) meposits (B3) (Riverine) mage Patterns (B10) meason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5) sent? Yes No</pre>
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No includes capillary fringe) Describe Recorded Data (stream gauge, monitor) Remarks:	check all that apply) Salt Crust (B11) Biotic Crust (B11) Aquatic Inverter Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfit Other (Explain in Other (Explain in Depth (inches) Depth (inches) Depth (inches) Diring well, aerial photon) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks) : : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>12</u> : <u>13</u> : : : : : : : : : : : : :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfis Satura Shallo FAC-N drology Pre ble:	<pre>/ Indicators (2 or more required) Marks (B1) (Riverine) ment Deposits (B2) (Riverine) meposits (B3) (Riverine) mage Patterns (B10) meason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5)</pre>
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes Describe Recorded Data (stream gauge, monitor) Remarks:	check all that apply) Salt Crust (B11) Biotic Crust (B11) Aquatic Inverte Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surfa Other (Explain i Other (Explain i Depth (inches) Depth (inches) Depth (inches) oring well, aerial photoderic) 12) brates (B13) de Odor (C1) spheres along Li educed Iron (C4) duction in Tilled ace (C7) in Remarks) : : : : : : : : : : : : :	ving Roots (C3) Soils (C6) Wetland Hyd	Secondary Water Sedim Drift D Draina Dry-Se Crayfie Satura Shallo FAC-N	<u>Principations (2 or more required)</u> Marks (B1) (Riverine) ment Deposits (B2) (Riverine) meposits (B3) (Riverine) mage Patterns (B10) meason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) leutral Test (D5) sent? Yes <u>No</u>

USITE: El WENTO WEST	City/Co	unty:		Sampling Date:	PitT
ant/Owner:			State:	Sampling Point	
igator(s):	Section	n, Township, Rang	e:	Sion	ne (%):
orm (hillslope, terrace, etc.):		relief (concave, co	$\times 214$	140,29 Datur	n 1058
gion (LRR):	/AL	$\frac{1}{2}$	Long: <u>John</u>	ification:	
lap Unit Name:	100	<u>, , , , , , , , , , , , , , , , , , , </u>		n Demarks)	
imatic / hydrologic conditions on the site typical for	this time of year? Ye	es No	(If no, explain)	n recent? Yes	No
egetation, Soil, or Hydrology		ed? Are N	ormal Circuitistance	swers in Remarks)	
egetation, Soil, or Hydrology	_ naturally problema	tic? (If nee	ded, explain any and		-turne oto
MARY OF FINDINGS - Attach site ma	ap showing sam	pling point lo	cations, transe	cts, important le	atures, etc.
terrebutic Vegetation Present? Yes	No	Is the Sampled /	Area		
tric Soil Present? Yes	No X	within a Wetland	1? Yes_	No	-
tland Hydrology Present? Yes	No <u>×</u>				
marks:					
OFTATION Lies scientific names of p	lants.	a ng wi			
JETATION - Ose solonano manere -	Absolute Don	ninant Indicator	Dominance Test	worksheet:	A .
ee Stratum (Plot size:)	<u>% Cover</u> Spe	<u>cies?</u> <u>Status</u>	Number of Domina That Are OBL, FA	ant Species CW, or FAC:	(A)
94 1			T-lat Number of D	ominant	2
			Species Across Al	I Strata:	(B)
			Percent of Domina	ant Species	D'
	= To	otal Cover	That Are OBL, FA	CW, or FAC:	(A/B)
apling/Shrub Stratum (Plot size:)			Prevalence Index	worksheet:	
			Total % Cove	r of: Multip	bly by:
3			OBL species	×1=	
			FACW species	$\underline{0} \times 2 = \underline{0} \times 2 $	3
			FAC species	x 4 =	4
	: = T	otal Cover	IPI species	1x5=	5
Brown (Plot size:)	30	upl_	Column Totals:	<u>'4</u> (A)	1 <u>3</u> (B)
Easis which invidence	2				25
RIMON CONSPUS	<u> </u>	FAL	Prevalence	Index = B/A =	
Bonnus caricatus				Test is >50%	
Bromus hordaceus			Prevalence	ndex is ≤3.0 ¹	
s Anemopsis alitornica			Morphologic	al Adaptations ¹ (Provid	le supporting
7			data in R	emarks or on a separa	ite sneet)
8	120 =	Totai Cover	Problematic	Hydrophytic vegetatio	n (Explain)
Woody Vine Stratum (Plot size:)			Indicators of hyr	tric soil and wetland h	ydrology must
1			be present, unles	ss disturbed or probler	natic.
2			Hydrophytic		
	 7		Vegetation		X
	Cover of Biotic Crus	t	Present?		
% Bare Ground in Herb Stratum %					

1 .

	N	
Sampling Point	44	7

(inches) Color (moint)	Redox Features	10	
$\frac{10-7}{10+8} = \frac{10+8}{10+8} = \frac{10}{10} = \frac{10}{10$	Color (moist) % Typ	e ¹ Loc ²	<u>Texture</u> Remarks
			Locom (laist
7-6 1071- 3/2 100			
D-7 107125/4 TD-			Scholycly Land 1000m
			Silt7 Schol
¹ Type: C=Concentration, D=Depletion, RM=Re	educed Matrix CS=Covered or Co	eted Cand O	. 2.
Hydric Soil Indicators: (Applicable to all LR	Rs, unless otherwise noted)	aleu Sand Gr	ains. Location: PL=Pore Lining, M=Matrix.
Histosol (A1)	Sandy Redox (S5)	54	indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	Stripped Matrix (S6)		1 cm Muck (A9) (LRR C)
Black Histic (A3)	Loamy Mucky Mineral (51)		2 cm Muck (A10) (LRR B)
Hydrogen Sulfide (A4)	Loamy Gleved Matrix (F1)		Reduced Vertic (F18)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)		Red Parent Material (TF2)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (ER)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		
Thick Dark Surface (A12)	Redox Depressions (F8)		31
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)			wettand hydrology must be present,
lestrictive Layer (if present):			unless disturbed or problematic.
Туре:			
	-		
Depth (inches):			
Depth (inches):	-		Hydric Soil Present? Yes No K
Depth (inches):			Hydric Soil Present? Yes <u>No K</u>
Depth (inches): temarks: /DROLOGY /etland Hydrology Indicators:			Hydric Soil Present? Yes <u>No K</u>
Depth (inches): temarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required: chu			Hydric Soil Present? Yes No K
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required; chu Surface Water (A1)	eck all that apply)		Hydric Soil Present? Yes No K
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: timary Indicators (minimum of one required; chr _ Surface Water (A1) High Water Table (A2)	eck all that apply) Salt Crust (B11)		Hydric Soil Present? Yes No K
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required; chu _ Surface Water (A1) _ High Water Table (A2) Saturation (A3)	eck all that apply) Salt Crust (B11) Biotic Crust (B12)		Hydric Soil Present? Yes No K Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required; chr _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) Water Marke (B1) (Magning to b)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)		Hydric Soil Present? Yes No
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: <u>imary Indicators (minimum of one required; chr</u> _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) Sodiment Development (incomment)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)		Hydric Soil Present? Yes No K Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterne (B10)
Depth (inches): lemarks: /DROLOGY /etland Hydrology Indicators: <u>imary Indicators (minimum of one required: chi</u> _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along	Living Roots	Hydric Soil Present? Yes No
Depth (inches): Temarks: 'DROLOGY Tetland Hydrology Indicators: <u>imary Indicators (minimum of one required; chi</u> _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine) _ Drift Deposits (B3) (Nonriverine)	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4)	Living Roots	Hydric Soil Present? Yes No
Depth (inches): Temarks: DROLOGY Tetland Hydrology Indicators: <u>imary Indicators (minimum of one required; chr</u> 	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches): Temarks: DROLOGY Tetland Hydrology Indicators: <u>imary Indicators (minimum of one required; chr</u> 	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches): lemarks: 'DROLOGY 'etland Hydrology Indicators: <u>imary Indicators (minimum of one required; chr</u> 	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarke)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches): Ternarks: 'DROLOGY 'etiand Hydrology Indicators: <u>imary Indicators (minimum of one required; chr</u> 	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches): Ternarks: DROLOGY Vetland Hydrology Indicators: <u>timary Indicators (minimum of one required; chu</u> 	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches):	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches):	eck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches):	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6)	Hydric Soil Present? Yes No K
Depth (inches): Itemarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required; chr _ 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) Vid Observations: rface Water Present? Yes No uration Present? Yes No	eck all that apply)	Living Roots 4) d Soils (C6) Wetland	Hydric Soil Present? Yes No K
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6) Wetland Dections), if an	Hydric Soil Present? Yes No K
Depth (inches): Itemarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (minimum of one required; chr 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) Modeservations: rface Water Present? Yes No	eck all that apply)	Living Roots 4) d Soils (C6) Wetland	Hydric Soil Present? Yes No K
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6) Wetland pections), if av	Hydric Soil Present? Yes No
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6) Wetland pections), if an	Hydric Soil Present? YesNo
Depth (inches):	eck all that apply)	Living Roots 4) d Soils (C6) Wetland pections), if a	Hydric Soil Present? Yes No

STATE STATE

WETLAND DETERMINATION DATA FORM - Arid West Region
Project/Site: Ed Cuerro du Sur City/County: San Dires Sampling Date: 4/26/13
Applicant/Owner:State: CA Sampling Point: P. + 8
Investigator(s): S.Amin, R Randell Section, Township, Range:
Landform (hillslope, errace) etc.): Local relief (concave, convex, rone) Put Slope (%);
Subregion (LRR):
Soil Map Unit Name: TUB-TUUNK Sand, O to 5 % shoes NWI classification: Frishwahrenight
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soit, 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 Is the Sampled Area Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No
Remarks: Vegetation present, but no south or hydrology, pit beating in
depression that may poor water longer then normal

VEGETATION – Use scientific names of plants.

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	<u>Species?</u> Status	Number of Densing at Q
1			That Are OBL EACIM or EAC:
2			(A)
3 2		<u> </u>	Total Number of Dominant
			Species Across All Strata: (B)
4			Dement of Deminent Operation
		= Total Cover	That Are OBL FACW or FAC:
Sapling/Shrub Stratum (Plot size:)			
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species 1 x 1 = 1
4.			
5			
			FAC species X 3 =
Herb Stratum (Plot size: 5K5)		= Total Cover	FACU species x 4 =
1. TIMUS Nichodis	100	4 mi	UPL species x 5 =
Sonces Kiphious	100	$-1-\overline{\infty}$	Column Totals: (A) (B)
2			
3			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Deminance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7.	-		Morphological Adaptations ¹ (Provide supporting
8.	- <u> </u>		data in Remarks or on a separate sheet)
	100		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:	μu	= Total Cover	
1			¹ Indicators of hydric soil and wotland hydrology must
2			be present, unless disturbed or problematic.
۶			
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust 💋	Present? Yes X No
Remarks:			
			Sc

Sampling Point: P.J-8

			Deda							
Jepth (inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remarks	
A 2	1041 312				· · · ·	Ś	ilty Claybe	m		
2 17	7 - 20 70					~	The chan too		Natil	fato
5-13	<u>7.5 1103/C</u>		() () () () () () () () () () () () ()							
						·				
ype: C=C	oncentration, D=Deple	tion, RM=R	educed Matrix, CS	=Covered	l or Coate	d Sand Gra	ains. ² Loc	cation: PL=Po	re Lining, M=	Matrix.
ydric Soil	Indicators: (Applica	DIE TO AII LI	KKS, Unless other	wise note	eu.)		1			
Histosol	(A1)		Sandy Redo)X (55)			1 cm M	Muck (A9) (LR	R C)	
_ Histic E	pipedon (A2)		Supped Ma	litix (30) ku Minoral	(51)		2 cm a	ad Vertic (F18		
Black H	ISTIC (A3)		Loamy Muc	ky Millera	/E2)		Reduc	arent Material	/ (TF2)	
Hydroge	en Sulfide (A4)		Loamy Gley		(FZ)		Red F	(Evolution in Rei	(11 Z) marks)	
Stratifie	d Layers (A5) (LRK C)	Depieted Mi	auix (F3)	(E6)				marksy	
1 cm M	uck (A9) (LKK D)	(444)		ade Surfaa	- (F7)		10			
Deplete	a Below Dark Surface	(AT1)	Depieted Da	Deciono /	⊂(r'/) E8\		³ Indicators	of hydrophytic	venetation a	nd
I nick D	ark Surrace (A12)			ະຮຽນບົກຮູ (1 ຄູ່ (EQ)	-0)		wationd	hydrology mus	st be nresent	
Sandy I	Mucky Mineral (S1)		vernai Pool	5 (F9)			welland	tisturbed or pro	stoe present,	
_ Sandy (Gleyed Matrix (S4)						T		Joiematic.	
estrictive	Layer (if present):									\sim
Туре:										X
Depth (in	nches);								-	
							Hydric Soil	Present?	Yes	No <u>/ </u>
Remarks:	<u></u>						Hydric Soil	Present?	Yes	No <u>/ </u>
YDROLC	DGY						Hydric Soil	I Present?	Yes	No <u>*</u>
Remarks: YDROLC)GY ydrology Indicators:						Hydric Soil	I Present?	re (2 or more	
YDROLC Wetland Hy Primary Ind	OGY vdrology Indicators: icators (minimum of or	ne required;	check all that appl	γ)			Hydric Soil	I Present?	rs (2 or more	No <u>/</u>
YDROLO Vetland Hy Primary Ind	OGY vdrology Indicators: icators (minimum of or e Water (A1)	ne required;	<u>check all that appl</u> Salt Crust	y) (B11)			Hydric Soil	I Present?	Yes rs (2 or more 31) (Riverine)	No <u>/</u>
YDROLO Vetland Hy Primary Ind Surface High W	DGY vdrology Indicators: icators (minimum of or Water (A1) vater Table (A2)	ne required;	<u>check all that appl</u> Salt Crust Biotic Crust	y) (B11) st (B12)			Hydric Soil	I Present?	Yes rs (2 or more 31) (Riverine osits (B2) (Riv	No required) verine)
YDROLO Wetland Hy Primary Ind Surface High W Saturat	DGY /drology Indicators: icators (minimum of or Water (A1) /ater Table (A2) ition (A3)	ne required;	<u>check all that appl</u> Salt Crust Biotic Crus Aquatic In	y) (B11) st (B12) vertebrate	es (B13)		Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine	No <u>/</u> required) verine)
YDROLO Wetland Hy Primary Ind Surface High W Saturat Water I	DGY /drology Indicators: icators (minimum of or Water (A1) /ater Table (A2) ion (A3) Marks (B1) (Nonriveri	ne required; ne)	<u>check all that appl</u> Salt Crust Biotic Crus Aquatic In Hydrogen	y) (B11) st (B12) vertebrate Sulfide O	es (B13) dor (C1)		Hydric Soil	I Present?	Yes rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine rns (B10)	No required) verine)
YDROLC Wetland Hy Primary Ind Surface High W Saturat Water I Sedime	DGY /drology Indicators: icators (minimum of or e Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor	ne required; ne) nriverine)	<u>check all that appl</u> Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized f	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe	es (B13) dor (C1) eres along	Living Roo	Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine rns (B10) ater Table (C	No <u>*</u>
YDROLC Wetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De	DGY /drology Indicators: icators (minimum of or e Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor prosits (B3) (Nonriveri	ne required; ne) nriverine) ine)	check all that appl Salt Crust Salt Crust Aquatic In Hydrogen Oxidized f Presence	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed iron (C4	Living Roo	Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine rns (B10) ater Table (C ws (C8)	No <u>*</u>
Primary Ind Surface High W Saturat Vater I Sedime Drift De Surface	DGY /drology Indicators: icators (minimum of or e Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor eposits (B3) (Nonriver a Soil Cracks (B6)	ne required; ne) nriverine) ine)	check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roo	Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C ws (C8) ble on Aerial	No <u>*</u>
Primary Ind Surface High W Saturat Water I Sedime Drift De Surface	DGY /drology Indicators: icators (minimum of or a Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor eposits (B3) (Nonriver a Soil Cracks (B6) ition (Aaila la	ne required; ne) nriverine) ine)	check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Much	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti	es (B13) dor (C1) eres along ed Iron (C4 ion in Tiller (C7)	Living Roo I) d Soils (C6	Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C ws (C8) ble on Aerial rd (D3)	No <u>*</u> required) verine) ») 2) magery (C9)
Primary Ind Primary Ind Primary Ind Surface High W Saturat Water I Sedime Drift De Surface Inunda	DGY /drology Indicators: icators (minimum of or a Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor aposits (B3) (Nonriveri a Soil Cracks (B6) tion Visible on Aerial la	ne required; ne) nriverine) ine) magery (B7)	check all that appl Salt Crust Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface (es (B13) dor (C1) eres along ed Iron (C4 ion in Tiller (C7)	Living Roo I) d Soils (C6	Hydric Soil	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C ws (C8) ble on Aerial rd (D3) est (D5)	No <u>*</u> required) verine) ») 2) magery (C9)
Primary Ind Seriary Ind Surface High W Saturat Vater I Sedime Drift De Surface Inunda	DGY vdrology Indicators: icators (minimum of or e Water (A1) vater Table (A2) icion (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor eposits (B3) (Nonriveri e Soil Cracks (B6) tion Visible on Aerial In Stained Leaves (B9)	ne required; ne) nriverine) ine) magery (B7)	check all that appl Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface (plain in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled (C7) emarks)	Living Roo I) d Soils (C6	Hydric Soil Hydric Soil Seco	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C2 ws (C8) ble on Aerial 1 rd (D3) est (D5)	No <u>*</u> required) verine) e) 2) magery (C9)
Primary Ind Setland Hy Primary Ind Surface High W Saturat Vater I Sedime Drift De Surface Inunda Water- Field Obse	DGY vdrology Indicators: icators (minimum of or e Water (A1) vater Table (A2) icon (A3) Marks (B1) (Nonriveri ent Deposits (B2) (Nor eposits (B3) (Nonriveri e Soil Cracks (B6) tion Visible on Aerial la Stained Leaves (B9) prvations:	ne) nriverine) ine) magery (B7)	check all that appl Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti c Surface (plain in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled (C7) emarks)	Living Roo I) d Soils (C6	Hydric Soil	I Present?	Yes rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C ws (C8) ble on Aerial rd (D3) est (D5)	No <u>*</u> required) verine) v) 2) magery (C9)
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Primary Ind Primary Ind Surface High W Saturat Vater I Sedime Drift De Surface Inunda Urift Des Surface Wa Water Table Saturation I (includes ca Describe R Remarks:	DGY /drology Indicators: icators (minimum of on a Water (A1) /ater Table (A2) ition (A3) Marks (B1) (Nonriveri eposits (B3) (Nonriveri epo	ne) nriverine) ine) magery (B7) es N es N gauge, mor	check all that appl Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F Presence Recent Irc Other (Ex) Other (Ex) Depth (in Depth (in Depth (in bitoring well, aerial	y) (B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti s Surface (plain in Re uches): photos, pr	es (B13) dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks) 8 ^h revious ins	Living Roo) d Soils (C6 	Hydric Soil <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u></u>	I Present?	rs (2 or more 31) (Riverine) osits (B2) (Riv B3) (Riverine) rns (B10) ater Table (C: ws (C8) ble on Aerial rd (D3) est (D5) Yes	No required) verine))) 2) magery (C9) No No

Project/Site: <u>El Cuervo del Sur</u> <u>City/County: Sch Drego</u> Sampling Date: <u>4/26/13</u> Applicant/Owner: <u>State: A</u> Sampling Point: <u>PiF9</u> Investigator(s): <u>S.Amm, A. Runder</u> Section, Township, Range: <u>Local relief (concave, convex, rope)</u> : <u>Plut</u> <u>Slope (%): B</u> Landform (hillslope (terrace, etc.): <u>Local relief (concave, convex, rope)</u> : <u>Plut</u> <u>Slope (%): B</u> Subregion (LRR): <u>Lat</u> <u>4806978</u> Long: <u>3641264</u> Datum: <u>W65584</u> Soil Map Unit Name: <u>TUB-Tuguyu Sant, O to 596 Slope</u> NWI classification: <u>Frechwert-Owercunt</u> Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>No</u> (If no exploin in Remarka)
Applicant/Owner:
Investigator(s): <u>S.A.m.</u> , <u>R. R.a.n.da</u> Section, Township, Range: <u>Sampling Point.</u> <u>Andreach</u> Section, Township, Range: <u>Local relief (concave, convex, rope)</u> : <u>Plat</u> Slope (%): <u>B</u> Subregion (LRR): <u>Lat.</u> <u>480698</u> Long: <u>3641264</u> Datum: <u>W65584</u> Soil Map Unit Name: <u>TUB-Tuguyu Sant</u> , <u>0 to 5% shope</u> NWI classification: <u>Frechworth-Owercunt</u> Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>No</u> (If no exploin in Remarke) <u>Wattan</u>
Landform (hillslope (terrace, etc.): Local relief (concave, convex, rone): Kit Slope (%):
Subregion (LRR):
Soil Map Unit Name: TUB-TUJUNYA Sand, O to 5% stopes NVI classification: Frichwart-Omercunt Are climatic / hydrologic conditions on the site typical for this time of year? Yes No. (If no exploin in Remarka) Without
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No. (If no. evaluation in Remarka)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area
Hydric Soil Present? Yes No within a Wattand?
Wetland Hydrology Present? Yes No
Remarks:

VEGETATION – Use scientific names of plants.

Interestratum (Plot size:		Absolute Dominant Indicato	Dominance Test worksbeet
1.	<u>Iree Stratum</u> (Plot size:)	<u>% Cover Species?</u> Status	- Number of Dominant Species
Z	1		That Are OBL, FACW, or FAC;
a.	2		
A.	3		I otal Number of Dominant Species Across All Strates
Sapling/Shrub Stratum (Plot size:	4		(B)
Sapling/Shrub Stratum (Plot size:			Percent of Dominant Species
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =	Sapling/Shrub Stratum (Plot size:)		That Are OBL, FACW, or FAC: (A/B)
Image: Section of the stratum Image: Section of the stratum	1		Prevalence Index worksheet:
Bare Ground in Herb Stratum Montply Uy Market Stratum Montpl	2		Total % Cover of: Multiply by:
Signature	3		
S.	4		
Herb Stratum (Plot size: 5 / 1 Lerb Stratum (Plot size: 5 / N Curvedon dertrubu 90 / Y Go Y Market Stratum 90 / Y S N Curvedon dertrubu 90 / Y S N Market Stratum 90 / Y S N Market Stratum 90 / Y FAC species 1 / X 4 = / Y UPL species - X 5 = - Column Totals: 1 (A) / Y Market Stratum S Market Stratum S Market Stratum S Market Stratum Market Stratum Market Stratum Market Stratum Market Stratum % Cover of Biotic Crust Market Stratum % Cover of Biotic Crust Market Stratum % Cover of Biotic Crust	5.		X2=
Herb Stratum (Plot size: 5451)			FAC species x 3 =
Bronws drandry S N - Column Totals:	Herb Stratum (Plot size: 5451)	= Total Cover	FACU species $x 4 = 4$
Group douty fun GO Y FACU Column Totals:	1. Bronnes drendous	5 N -	UPL species x 5 =
Prevalence Index = B/A = 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) Moody Vine Stratum (Plot size:	2 Curscon deute Li	GO Y ENIL	Column Totals: (A) (B)
Prevalence index = B/A =	3 Diving satura		
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) Noody Vine Stratum (Plot size: Image: Stratum (Plot size:			Prevalence Index = B/A =
	4		Hydrophytic Vegetation Indicators:
	5		Dominance Test is >50%
	6		Prevalence Index is ≤3.0 ¹
data in Remarks or on a separate sheet)	7		Morphological Adaptations ¹ (Provide supporting
Woody Vine Stratum (Plot size:) = Total Cover Problematic Hydrophytic Vegetation ¹ (Explain) 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	8		data in Remarks or on a separate sheet)
Voody Vine Stratum (Plot size:) 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Bare Ground in Herb Stratum Ø 6 Cover of Biotic Crust Ø Yes No	Woody Vine Stratum (Plot size:)		
be present, unless disturbed or problematic. Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 20 Present? Yes No	1		¹ Indicators of hydric soil and wetland hydrology must
Bare Ground in Herb Stratum 2 % Cover of Biotic Crust 2 %	2		be present, unless disturbed or problematic.
Bare Ground in Herb Stratum % Cover of Biotic Crust Vegetation Present? Yes No		= Total Cover	Hydrophytic
Present? Yes No	% Bare Ground in Horth Stratum		Vegetation
	% Cover	of Biotic Crust	Present? Yes No V
	Remarks:		

SOIL	
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	scription: (Describe	to the dept	h needed to document the indicato	r or confirm	the absence of	of indicators.)
Depth	Matrix		Redox Features	1 2	Texture	Demarke
inches)	Color (moist)		Color (moist) % Type	_ <u>_Loc</u>		Remarks
0-4	104R J/2			0	May voin	
4-14	byn 3n				senty han	
Type: C=	Concentration, D=De	pletion, RM=	Reduced Matrix, CS=Covered or Co	ated Sand G	rains. ² Loc	ation: PL=Pore Lining, M=Matrix.
lydric So	il Indicators: (Appli	cable to all	LRRs, unless otherwise noted.)		Indicators	for Problematic Hydric Solis :
Histos	ol (A1)		Sandy Redox (S5)		1 cm M	luck (A9) (LRR C)
Histic	Epipedon (A2)		Stripped Matrix (S6)		2 cm M	A Vertic (F18)
Black	Histic (A3)		Loamy Mucky Mineral (F1)		Red Pa	arent Material (TF2)
Hydro	gen Sulfide (A4)	C)	Depleted Matrix (F3)		Other (Explain in Remarks)
Straum	Muck (A9) (LRR D)	0)	Redox Dark Surface (F6)			
Deple	ted Below Dark Surfa	ce (A11)	Depleted Dark Surface (F7)			
Thick	Dark Surface (A12)		Redox Depressions (F8)		³ Indicators	of hydrophytic vegetation and
Sandy	y Mucky Mineral (S1)		Vernal Pools (F9)		wetiand l	nyarology must be present,
Sandy	Gleyed Matrix (S4)					stabled of problemate.
Restrictiv	e Layer (if present):					
_						
Type: Depth Remarks:	(inches):				Hydric Soil	Present? Yes No
Type: _ Depth Remarks:	(inches): Soul damp	, but n	o Moistur.		Hydric Soil	Present? Yes No
Type: _ Depth Remarks:	(inches): Soul damp _OGY	, but n	- Moistur .		Hydric Soil	Present? Yes <u>No</u>
Type: _ Depth Remarks: IYDROL	(inches): Soil damp _OGY Hydrology Indicator	, but n	o Moistur.		Hydric Soil	Present? Yes <u>No</u>
Type: _ Depth Remarks: IYDROL Wetland Primary Ir	(inches): Soil dromp LOGY Hydrology Indicator	s:	to Moistun.		Hydric Soil	Present? Yes No
Type: _ Depth Remarks: IYDROL Wetland Primary Ir Surfa	(inches): Soil damp _OGY Hydrology Indicator ndicators (minimum o ice Water (A1)	s:	ed; check all that apply) Salt Crust (B11)		Hydric Soil	Present? Yes No
Type: _ Depth Remarks: IYDROL Wetland Primary Ir Surfa High	(inches): Sold draw OGY Hydrology Indicator Indicators (minimum o Ince Water (A1) Water Table (A2)	s:	ed; check all that apply) Salt Crust (B11) Biotic Crust (B12)		Hydric Soil	Present? Yes No hdary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
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Memorandum

- Date: April 19, 2013
 - To: Sundeep Amin
- From: Thomas Grace
- Subject: Los Penasquitos Field Survey Progress Report

Matt Moore, Jerry Pitt and Tom Grace spent approximately 1.5 days conducting an in-house survey for Los Penasquitos Creek at the El Cuervo al Oeste and El Cuervo del Sur sites. The survey was taken with three cross-section alignments for each site. The El Cuervo al Oeste site survey was taken on April 17th, 2013 and the El Cuervo del Sur site was taken on April 18th, 2013. The field survey cross-sections were taken with the objective to closely align with the HEC-RAS cross-section and boring locations. Other than getting the general topography of the land, we also noted edge-of-water locations and depth of water.

The El Cuervo al Oeste site survey was conducted within the creek area. The area was heavily vegetated with thick brush and trees. The creek had running water and in some instances small pools of standing water were observed.

The El Cuervo del Sur site survey was conducted mainly within the project site area. The site area is mainly dry with tall grass, shrubs and trees. The creek area was very dense with tall vegetation. The vegetation was too dense to complete the survey along the alignments and the water appeared to be deep. We couldn't traverse through the creek due to safety. The third cross-section, the most downstream section, was very densely vegetated. Survey points were gathered until accessibility was limited.

The cross-section alignments were hard to establish based on the overview map. However, we oriented our alignments with visible landmarks, such as houses, trees and boring locations, to give us direction.

Attached is a map illustrating our general cross-section alignments that were established by taking waypoints with the GPS unit on the field survey. Refer to **Figure 1**.

The field survey points were then transposed onto the cross-sections generated with the existing topography, 2-ft contour intervals, to generate a more defined section. Refer to **Figure 2 and Figure 3** for El Cuervo del Oeste and El Cuervo del Sur, respectively. The City topography is not detailed enough to capture the ground points beneath the dense canopy of the trees and brush therefore a field survey was conducted to supplement those points.

The cross-sections generated from the City topography and the field surveys were used as ground point data for an HEC-RAS analysis. The results from the analysis determined the preliminary water surface elevations and flood widths for both project sites. For each site, the 2-, 5-, 10-, and 25-year floodplains were delineated. Refer to **Figure 4 and Figure 5** for El Cuervo del Oeste and El Cuervo del Sur, respectively. The flow rates were based on the FEMA Flood Insurance Study (FIS) for Los Penasquitos Creek.



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FIGURE 3. LOS PENASQUITOS CREEK EL CUERVO DEL SUR - SECTION B-B FIELD SURVEY CROSS-SECTION 2 - HEC-RAS CROSS-SECTION 7566.95



vertical exaggeration in scale. Im left to right looking in the downst	ream
re preliminary only. Calculations we preliminary survey data .	re based on the
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