# Wetland Delineation For Shifler Property

Yolo County, California

18 May 2012

Prepared For: **Teichert Aggregates** 

# **Wetland Delineation**

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### INTRODUCTION

On behalf of Teichert Aggregates, ECORP Consulting, Inc. (ECORP) conducted a wetland delineation of the 320±-acre Shifler Property, located south of Cache Creek, north of Highway 16, east of County Road 94B, and west of County Road 96 in Yolo County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to an unsectioned portion of Township 10 North, and Range 1 East (MDBM) of the "Woodland, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1981). The approximate center of the site is located at 38° 41′ 02″ North and 121° 51′ 25″ West within the Lower Cache Watershed (#18020110, U.S. Department of the Interior, Geological Survey 1978).

This report describes potential waters of the United States, including wetlands, identified within the site that may be regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the USACE Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). The potential waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the site, and are subject to modification following the USACE verification process.

# APPLICANT: AGENT:

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### **Existing Site Conditions**

The site is composed of relatively flat terrain at an elevation of approximately 100 to 110 feet above mean sea level. The majority of the site is comprised of agricultural fields, some of which were in tomato (*Lycopersicon esculentum*) cultivation at the time of the survey, and the remainder of which were freshly tilled. Moore Canal crosses the site from the southwest to the

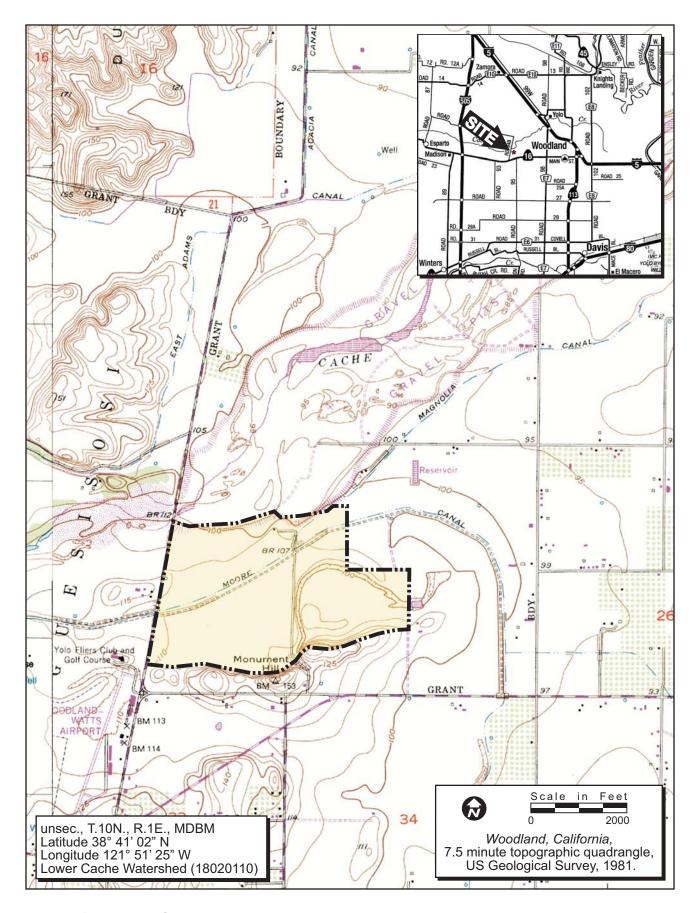


Figure 1. Project Site and Vicinity



northeast side of the site, and Magnolia Canal conveys water north from Moore Canal. A conveyor belt crosses from west to east through the northwestern portion of the site. To the north of the conveyor belt is a narrow strip of ruderal vegetation. In addition, ruderal vegetation is present along roadsides between fields, and in a small area projecting south into the western-most tomato field. Additional aquatic features on-site include a detention pond, a marsh, a seasonal wetland, and a small section of drainage ditch. These features are further described in the Results section.

Field surveys were conducted in mid September, when many plant species were past bloom, but most were still identifiable to species. The last rainfall before the site visit was on 8 September, just two days prior to the site visit, when 0.04 inches of rain fell (NOAA 2010). The last rain event prior to that was on 27 May 2010 (NOAA 2010).

The ruderal community on-site is composed primarily of non-native, naturalized Mediterranean grasses and a variety of other weedy species. Plant species observed in this community include wild oats (Avena fatua), soft brome (Bromus hordeaceus), red brome (B. madritensis ssp. rubens), Harding grass (Phalaris aquatica), Johnson grass (Sorghum halepense), bindweed (Convolvulus arvensis), pigweed amaranth (Amaranthus albus), prostrate amaranth (A. blitoides), lamb's quarters (Chenopodium album), mustard (Hirschfeldia incana), puncture vine (Tribulus terrestris), Canada horseweed (Conyza canadensis), curly dock (Rumex crispus), common purslane (Portulaca oleraceus), Devil's claw (Proboscidea lutea), horehound (Marrubium vulgare), narrow-leaved milkweed (Asclepias fascicularis), sunflower (Helianthus annuus), jimsonweed (Datura wrightii), milk thistle (Silybum marianum), broad leaved pepper grass (Lepidium latifolium), hairy willow herb (Epilobium ciliatum), wild radish (Raphanus sativus), turkey mullein (*Eremocarpus setigerus*), and prickly lettuce (*Lactuca serriola*). A variety of trees and shrubs are scattered sparsely throughout the community, including poison oak (Toxicodendron diversilobum), black walnut (Juglans hindsii), English walnut (J. regia), tree tobacco (Nicotiana glauca), tree of heaven (Ailanthus altissima), and valley oak (Quercus lobata).

No National Wetlands Inventory features have been mapped within the project area.

According to the *Soil Survey of Yolo County, California* (U.S. Department of Agriculture, Soil Conservation Service 1972), six soil units, or types, have been mapped within the site (Figure 2. *Natural Resources Conservation Service Soil Types*). These are: (BrA) Brentwood silty clay, 0 to 2% slopes; (Lm) Loamy alluvial land; (Rh) Riverwash; (SmD) Sehorn-Balcom complex 2-15% slopes; (SmF2) Sehorn-Balcom complex, 30-50% slopes, eroded; and (Ya) Yolo silt loam. (Rh) consists of listed hydric components, and (Lm) and (Ya) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992).

### **METHODS**

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (U.S. Army Corps of Engineers 2008). The boundaries of potential waters of the U.S. were delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Arid West Region - Wetland Determination Data Forms (Attachment A). A color aerial photograph (1"=200' scale, Digital Globe 2009) was used to assist with mapping and ground-truthing (Attachment B). *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of Yolo County, California* (U.S. Department of Agriculture, Soil Conservation Service 1972) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, *ed.* 1993) was used for plant nomenclature and identification.

Field surveys were conducted on 10 September 2010 and 12 March 2012 by ECORP biologist Daria Snider. Ms. Snider walked the entire  $320 \pm -$ acre site to determine the location and extent of potential waters of the U.S. within the property. Six paired data point locations and one single point location were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status. At each paired location, one point was located such that it was within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The data collected at the single point location was used to support a non-wetland determination. The total area of the wetlands and

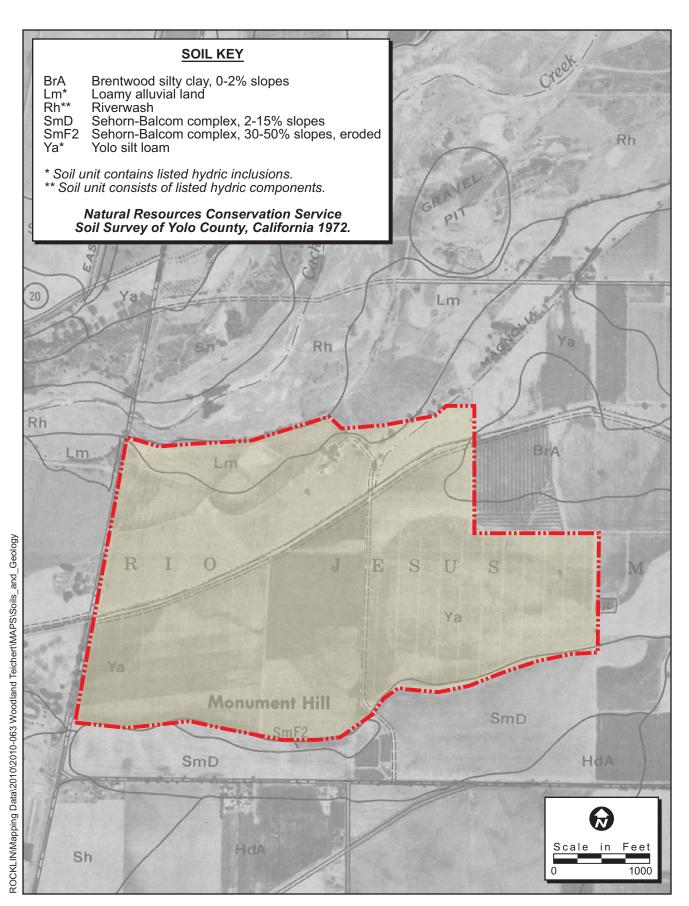


Figure 2. Natural Resources Conservation Service Soil Types

other waters within the site was recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT).

### Waters of the United States

This report describes potential waters of the U.S., including wetlands, which may be regulated by the USACE under Section 404 of the Clean Water Act. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 CFR 328.3(b), 51 FR 41250, November 13, 1986]. Wetlands can be perennial or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses [33 CFR 328.3(a), 51 FR 41250, November 13, 1986]. The limit of USACE jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.4(c)(1) as the "ordinary high water mark". The ordinary high water mark is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 CFR 328.3(e), 51 FR 41250, November 13, 1986]. The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of USACE jurisdiction. The upstream limits of other waters are defined as the point where the ordinary high water mark is no longer perceptible.

### **Routine Determinations**

To be determined a wetland; the following three criteria should be met:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and

Hydric soils are present.

### Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each data point location. The "50/20 rule" was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional species that individually comprise 20 percent or more of the total cover in the stratum (HQUSACE 1992, U.S. Army Corps of Engineers 2006).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), then the site was considered to by dominated by hydrophytic vegetation. Pursuant to the Arid West Region Supplement, plus (+) and minus (-) modifiers were not used (e.g., FAC-, FAC, and FAC+ plants are all considered to be FAC). Plant species not listed in Reed 1988 were assumed to be upland (UPL) species.

Table 1 - Classification of Wetla	and-Associated Plar	nt Species <sup>1</sup>
Plant Species Classification	<b>Abbreviation</b>	Probability of Occurring in Wetland
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed	NII	Door not occur in wetlends in any region
(assumed upland species)	NL	Does not occur in wetlands in any region.
<sup>1</sup> Source: Reed 1988		

In instances where indicators of hydric soil and wetland hydrology were present, but the plant community failed the dominance test, the vegetation was re-evaluated using the prevalence index. The prevalence index is a weighted-average wetland indicator status of all plant species in the sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the prevalence index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

### Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

A soil pit was excavated to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each data point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990).

## Hydrology

Wetlands, by definition, are seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include, but are not limited to: visual observation of saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to: drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard. The occurrence of at least one primary indicator or two secondary indicators is required to confirm the presence of wetland hydrology.

### **RESULTS**

A total of 1.855 acres of potential waters of the U.S have been mapped for this site (Table 2). The wetland determination data forms are included in Attachment A, and a list of plant species observed on-site is included in Attachment C. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Attachment D.

Table 2 - Potential Waters of the U.	S.
<u>Type</u>	Acreage <sup>1</sup>
Wetlands	
Seasonal Wetland	0.014
Marsh	0.009
Other Waters	
Pond	0.098
Irrigation Canal	1.729
Drainage Ditch	<u>0.006</u>
Total:	1.855
<sup>1</sup> Acreages represent a calculated estimation and a	re subject to modification following the Corps' verification process.

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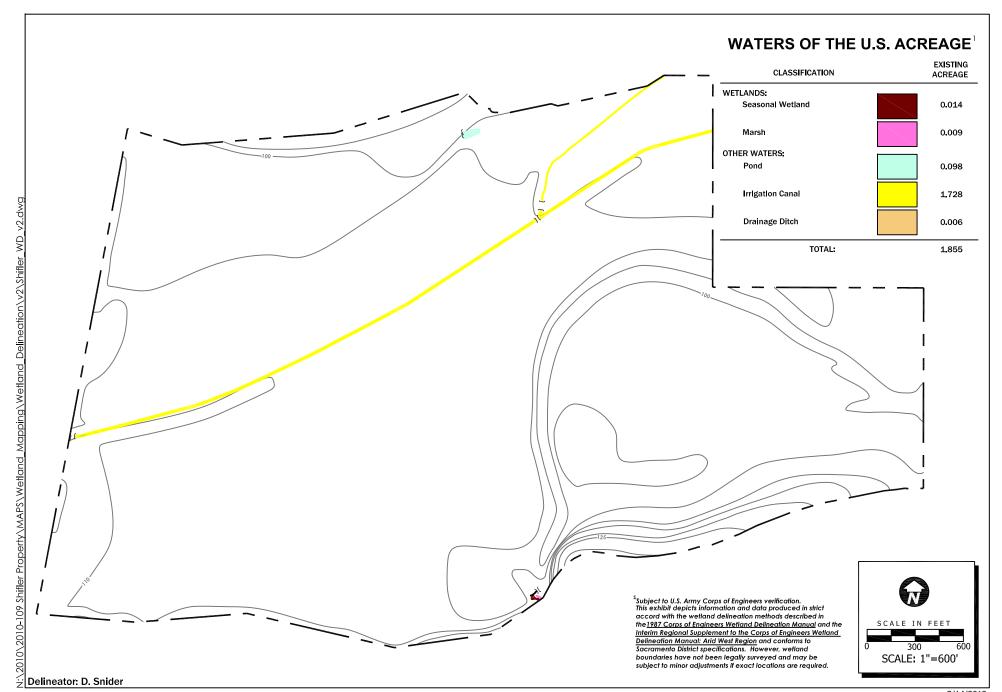


Figure 3. Wetland Delineation

3/14/2012



### Wetlands

### Seasonal Wetland

One seasonal wetland was mapped in the southern portion of the site. This feature appears to receive the majority of its hydrology from runoff from the abutting marsh. The seasonal wetland differs from the marsh in the apparent duration of inundation or saturation, and the plant species that are present. The seasonal wetland is dominated by Italian ryegrass (*Lolium multiflorum*), Harding grass (*Phalaris aquatica*), curly dock, and prickly lettuce. Some old cattail (*Typha* species) stems are present, but appear to be relicts of prior years. Vegetation within the seasonal wetland was determined to be hydrophytic due to passage of the dominance test.

Indicators of wetland hydrology in the seasonal wetland included oxidized rhizospheres and soil saturation within 12 inches of the soil surface. The soil matrix color within the seasonal wetland was 2.5Y 4/2 with 2% redox concentrations colored 10YR4/6. The soil was determined to be hydric based on the present of field indicator F3 (depleted matrix). The soil matrix color in an adjacent upland area was 2.5Y4/2 without any redox features.

### Marsh

One marsh was mapped along the southern boundary of the project site. The source of the hydrology for this feature is not clear, but it is likely due to a leak on the property to the south of the site. The marsh is dominated almost exclusively by narrow-leaved cattail (*Typha angustifolia*).

Indicators of wetland hydrology in the marsh included oxidized rhizospheres and soil saturation within 12 inches of the soil surface, and surface water present in portions of the feature. The soil matrix color within the marsh was 10YR4/2 with 2% redox concentrations colored 7.5YR4/6 from the surface to a depth of 8 inches. From 8 to 12 inches below the soil surface, the soil matrix color was 2.5YR4/2 without redox concentrations. The soil within this feature was determined to be hydric based on the presence of field indicator F3 (depleted matrix). The soil matrix color within an adjacent upland area was 10YR3/2 without redox features.

### **Other Waters**

### Pond

One excavated pond was mapped within the project area. Pond-1 is located in the northern portion of the site, and is primarily unvegetated. The edges of the pond are vegetated almost exclusively by broad-leaved pepper grass. Two other excavated basins are present on-site, one just north of Pond-1, and one in the southeastern corner of the site. Both of these features are dominated by upland plant species, and do not exhibit an Ordinary High Water Mark (see Data Point 7N in Attachment A).

The pond exhibited an Ordinary High Water Mark (OHWM), which was mapped based on the presence of live vegetation.

### Irrigation Canal

Two named irrigation canals are present within the project area. IC-1 is Magnolia Canal, and IC-2 and IC-3 are Moore Canal. Both of these canals are named, dashed blue-line features on the "Woodland, California" USGS 7.5-minute quadrangle. Moore Canal is approximately 15 feet wide, and concrete-lined. It conveys water from west to east across the site. Magnolia Canal conveys water north from Moore Canal, is approximately 7 feet wide, and has a soil substrate. Neither of these features are vegetated, but both support some vegetation along the banks. Moore Canal, which is concrete-lined, has much less soil for vegetation establishment, and therefore supports less vegetation along the banks. Species found along Moore Canal include burhead (*Echinodorus berterol*) and jungle rice (*Echinochloa colona*). Species found adjacent to Magnolia Canal include smartweed (*Polygonum* species), dallisgrass (*Paspalum dilatatum*), Johnson grass, yellow nutgrass (*Cyperus esculentus*), jungle rice, bearded sprangletop (*Leptochloa fascicularis*), and Bermuda grass (*Cynodon dactylon*).

The irrigation canals exhibit an OHWM, which is indicated variously by water marks, presence of vegetation, and the extent of scour.

### Drainage Ditch

One drainage ditch was mapped on-site. This feature appears to convey water from one agricultural field to another, as well as collect runoff from the marsh and seasonal wetland. The drainage ditch is primarily unvegetated, but Harding grass and panicled willow herb (*Epilobium brachycarpum*) are present along the edges. The drainage ditch exhibits an OHWM. The OHWM was mapped based on presence of vegetation.

### CONCLUSION / JURISDICTIONAL ASSESSMENT

Pursuant to the U.S. Environmental Protection Agency (USEPA) and USACE memorandum regarding Clean Water Act jurisdiction, issued following the United States Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to as *Rapanos*), the agencies will assert jurisdiction over the following waters: "traditionally navigable" waters (TNW), all wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are "relatively permanent" (i.e., tributaries that typically flow year-round or have continuous flow at least seasonally), and wetlands that directly abut such tributaries (USEPA and USACE 2007).

Waters requiring a significant nexus determination by the USACE and USEPA to establish jurisdiction include non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not relatively permanent, and wetlands adjacent to but do not directly abut a relatively permanent non-navigable tributary (USEPA and USACE 2007). The jurisdictional determination is a fact-based evaluation to establish whether a water has a significant nexus with a TNW. The significant nexus analysis will assess the flow characteristics and functions of the non-navigable tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of downstream TNWs (USEPA and USACE 2007).

Moore Canal, the largest waterway on-site, conveys water from Cache Creek, at an elevation of approximately 115 feet above MSL to Willow Slough, which it enters at an elevation of approximately 60 feet above MSL. Moore Canal appears to have been constructed on contour

through the Shifler project site, and continues on contour for several miles, until it reaches a subtle ridge just south of Gibson Road. Moore Canal follows this ridgeline for several miles until just before it empties into Willow Slough.

As discussed above, Moore Canal drains to Willow Slough, a tributary of the Sacramento River, which is a TNW. As Moore Canal is a Relatively Permanent Water tributary to a TNW, it is subject to Corps jurisdiction. During the site visit, Magnolia Canal was conveying water from Moore Canal to fields in the area. It does not appear that Magnolia Canal conveys water to any other drainageway. However, as it is connected to Moore Canal, it may be considered subject to Corps jurisdiction.

Marsh-1 and SW-1 are both tributary to DD-1, which appears to drain into the agricultural field to the west of these features. This field likely drains to Moore Canal, an RPW. Thus, SW-1, Marsh-1, and DD-1 are adjacent to, but do not directly abut, an RPW. Pond-1 appears to drain to the north, under the conveyor belt line, to Cache Creek, another RPW tributary to the Sacramento River. Therefore, Pond-1 would also be considered a feature adjacent to, but not abutting an RPW. These features (Pond-1, SW-1, Marsh-1, and DD-1) will likely require a significant nexus determination by the USACE and USEPA to establish jurisdiction.

A total of 1.855 acres of potential waters of the U.S. have been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the site, and are subject to modification following the USACE verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

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# **ATTACHMENT A**

Wetland Determination Data Forms - Arid West Region

Project/Site: Shifler Property City/County: Yola	COUNTY Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaragates	State: Sampling Point: \
Investigator(s): Daria Snider Section, Township, Ra	
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave,	
Subregion (LRR):	
NA NA AND AND AND AND AND AND AND AND AN	NWI classification: NOCE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	
	The state of the s
	"Normal Circumstances" present? Yes X No No
Are Vegetation, Soil, or Hydrology naturally problematic? (If no SUMMARY OF FINDINGS – Attach site map showing sampling point I	eeded, explain any answers in Remarks.)
Comment of Find Medical Site map showing sampling point	occurrent, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled	I Area
Hydric Soil Present? Yes V No within a Wetlar	nd? Yes 😾 No
Wetland Hydrology Present?  Yes No  Remarks:	
Marsh	
VEGETATION	4
Absolute Dominant Indicator Tree Stratum (Use scientific names.)  Absolute Dominant Indicator  Cover Species? Status	Dominance Test worksheet:
1	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2.	100 M-2000 M 1000 M 10
3	Total Number of Dominant Species Across All Strata: (B)
4	HARLE OF ARREST NOV. NOT IN TO
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	
1	Prevalence Index worksheet:
2	
3	FACW species x 2 =
5.	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
1. Typha angustifolia 100 V Obl	Column Totals: (A) (B)
2	Dravolance Index - B/A
3	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
4	Y Dominance Test is >50%
5	Prevalence Index is ≤3.0¹
7	Morphological Adaptations (Provide supporting
8	data in Remarks or on a separate sheet)
Total Cover: 10 D	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum	1
1	Indicators of hydric soil and wetland hydrology must be present.
2	
Total Cover:	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Present? Yes No
Remarks:	
· ·	
	ε.
140	
	1.

Profile Des	cription: (Describe	to the dep	th needed to	docum	nent the i	ndicator	or confir	m the abse	ence o	of indicate	ors.)	
Depth	Matrix				Feature:						,	
(inches)	Color (moist)	%	Color (mo		%	_Type <sup>1</sup>	_Loc <sup>2</sup>	Textu	re		Remarks	
0-8"	104R4/2	98	7.5YR	1/6	2%	C	RC	da	11/1	man)		
8-12"	2.54-1/2	100									fiedn	
									<u>a</u>	WOZCI	TPAN	110.17
				2004.5				-				
												-
				-					_			
	oncentration, D=Dep						re Lining,	RC=Root C				
Hydric Soil Histoso	Indicators: (Applic I (A1)	able to all		s other dy Redo		ed.)				or Proble uck (A9) (L	matic Hydric .RR C)	: Soils <sup>3</sup> :
Histic E	pipedon (A2)		Strip	ped Ma	trix (S6)			2	cm M	uck (A10)	(LRR B)	
	istic (A3)				y Minera					d Vertic (F	100	**
	en Sulfide (A4)				ed Matrix	(F2)				rent Materi		
	d Layers (A5) (LRR ( uck (A9) (LRR D)	3)	X Depl			FC)		_ 0	ther (E	Explain in F	Remarks)	
	d Below Dark Surfac	ο (Δ11)	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		Surface ( rk Surfac	A						
100 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1	ark Surface (A12)	· (/////			essions (f							
	Mucky Mineral (S1)			al Pools	100	• /		3Indica	ators o	f hydrophy	tic vegetation	n and
	Gleyed Matrix (S4)		IEIM							4500 30 140	must be pres	
Restrictive	Layer (if present):											
	7-11											
Туре:	ches):				- 1411	i.		Hydric	Soil F	Present?	Yes X	_ No
Type: Depth (in	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.				ę.			Hydric	Soil F	Present?	Yes X	_ No
Type: Depth (in Remarks:	ches):				Š.							
Type: Depth (in Remarks: YDROLO Wetland Hydes)	GY drology Indicators:		signt)		ē.				Se conc	lary Indica	tors (2 or mo	re required)
Type:	GY drology Indicators:		DATE:	t Crust (	D44V				Se cond	lary Indica	tors (2 or mo (B1) ( <b>Riveri</b> r	re required)
Type: Depth (in Remarks:  YDROLO Wetland Hy Primary Indic Surface	GY drology Indicators: cators (any one indicators)		Sal	t Crust (					Second	lary Indica ater Marks diment De	tors (2 or mo (B1) ( <b>Ri verii</b> posits (B2) ( <b>f</b>	re required) ne) Riverine)
Type: Depth (in Remarks:  YDROLO Vetland Hyo Surface High Wa	GY drology Indicators: cators (any one indicators) Water (A1) ater Table (A2)		Sall	tic Crust	(B12)	a (B13)			Second Wa Se	lary Indical ater Marks diment De ft Deposits	tors (2 or mo (B1) (Riverir posits (B2) (F s (B3) (Riveri	re required) ne) Riverine)
Type: Depth (in Remarks:  YDROLO Vetland Hyd Surface High Wa Saturatio	GY drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3)	ator is suffic	Sali Bioi Aqu	tic Crust atic Inv	(B12) ertebrates	and the same of			Se conc Wa Se Dri	lary Indica Iter Marks diment De It Deposits ainage Pat	tors (2 or mo (B1) ( <b>Riveri</b> r posits (B2) ( <b>F</b> s (B3) ( <b>River</b> i terns (B10)	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO Vetland Hyr mary India Surface High Wat Saturatia Water M	GY drology Indicators: cators (any one indicators) Water (A1) ster Table (A2) on (A3) larks (B1) (Nonriveri	ator is suffic	Sali Bioi Aqu Hyd	tic Crust latic Inv drogen S	t (B12) ertebrates Sulfide Od	lor (C1)	Living Ro	<u> </u>	Second Wa Se Dri Dra	dary Indical ater Marks diment De ft Deposits ainage Pati -Season V	tors (2 or mo (B1) (Riverir posits (B2) (Riveri terns (B10) Vater Table (	re required) ne) Riverine) ine)
Type: Depth (in Remarks:	GY drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nor	ator is suffic ine) nriverine)	Sall Biol Aqu Hyo X Oxi	tic Crust latic Inv drogen S dized RI	t (B12) ertebrates Sulfide Od hizospher	lor (C1) es along	Living Ro	<u> </u>	Second Was Se Dri Dra Dry	dary Indical ater Marks diment De ft Deposits ainage Pat y-Season V	tors (2 or mo (B1) (Rivering posits (B2) (Rivering (B3) (Rivering (B10)) (Rivering (B10)) (Rivering (B10)) (Rivering (C7))	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO Vetland Hy Primary India Surface High Water M Sedimer Drift Dep	GY drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonr	ator is suffic ine) nriverine)	Sall Biol Aqu Hyo Oxi Pre	tic Crust natic Inv drogen S dized RI sence o	t (B12) ertebrates Sulfide Od hizospher of Reduce	lor (C1) es along d Iron (C4	4)	S 	Second Wa Se Dri Dra Dry Thi	dary Indical ater Marks diment De ft Deposits ainage Pat A-Season V in Muck Su ayfish Burn	tors (2 or mo (B1) (Rivering posits (B2) (Files (B3) (Rivering terns (B10) Water Table (1) urface (C7) ows (C8)	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO  Vetland Hy Primary India Surface High Wa K Saturatia Water M Sedimer Drift Dep	GY drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Noriverint Deposits (B3) (Nonriverint Deposits (B4))	ator is suffic ine) nriverine) ine)	Sall Biol Aqu Hyo Oxi Pre Rec	tic Crust latic Inv drogen S dized RI sence o	t (B12) ertebrates Sulfide Od hizospher of Reduce	lor (C1) res along d Iron (C4 on in Plow		S 	Second Was Second Dri Dra Dry Thi Cra Sal	dary Indical ater Marks diment De ft Deposits ainage Pat A-Season V in Muck Su ayfish Burn	tors (2 or mo (B1) (Rivering posits (B2) (Files (B3) (Rivering terns (B10) Water Table (Inface (C7) ows (C8) sible on Aeria	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO  Vetland Hyu Surface High Wa Saturatio Water M Sedimer Drift Dep	GY drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonr	ator is suffic ine) nriverine) ine)	Sall Biol Aqu Hyo Oxi Pre Rec	tic Crust latic Inv drogen S dized RI sence o	t (B12) ertebrates Sulfide Od hizospher of Reduce n Reduction	lor (C1) res along d Iron (C4 on in Plow	4)	S 	Second Wa Se Dri Dra Dry Thi Cra Sal	dary Indical ater Marks diment De ft Deposits ainage Pati A-Season V in Muck Su ayfish Burn turation Vis	tors (2 or mo (B1) (Rivering posits (B2) (Rivering terns (B10) Nater Table (1) urface (C7) ows (C8) sible on Aerial	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO  Vetland Hyd Surface High Wat Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S	GY drology Indicators: eators (any one indicators) water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nonriverse) cosits (B3) (Nonriverse) on Visible on Aerial Intained Leaves (B9)	ator is suffic ine) nriverine) ine)	Sall Biol Aqu Hyo Oxi Pre Rec	tic Crust latic Inv drogen S dized RI sence o	t (B12) ertebrates Sulfide Od hizospher of Reduce n Reduction	lor (C1) res along d Iron (C4 on in Plow	4)	S 	Second Wa Se Dri Dra Dry Thi Cra Sal	dary Indical ater Marks diment De ft Deposits ainage Pate A-Season V In Muck Su ayfish Burra turation Vis allow Aquit	tors (2 or mo (B1) (Rivering posits (B2) (Rivering terns (B10) Nater Table (1) urface (C7) ows (C8) sible on Aerial	re required) ne) Riverine) ine)
Type: Depth (in Remarks:	GY  drology Indicators: cators (any one indicators) water (A1) ster Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nonrivers) cosits (B3) (Nonrivers) cosits (B3) (Nonrivers) on Visible on Aerial Intained Leaves (B9) vations:	ator is suffic ine) nriverine) ine) magery (B7	Sall Biol Aqu Hyo Oxi Pre Rec	tic Crust natic Inv drogen S dized RI sence o cent Iron er (Expl	t (B12) ertebrates Sulfide Od hizospher of Reduce Reduction	lor (C1) res along d Iron (C4 on in Plow	4)	S 	Second Wa Se Dri Dra Dry Thi Cra Sal	dary Indical ater Marks diment De ft Deposits ainage Pate A-Season V In Muck Su ayfish Burra turation Vis allow Aquit	tors (2 or mo (B1) (Rivering posits (B2) (Rivering terns (B10) Nater Table (1) urface (C7) ows (C8) sible on Aerial	re required) ne) Riverine) ine)
Type: Depth (in Remarks:  YDROLO  Vetland Hyu Surface High Wa K Saturatio Water M Sedimer Drift Dep Surface Inundatio	GY drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri at Deposits (B2) (Nonriversi) oosits (B3) (Nonriversi) soil Cracks (B6) on Visible on Aerial Intained Leaves (B9) vations: er Present?	ine) ine) ine) ine) magery (B7	Sall Biol Aqu Hyo X Oxi Pre Rec ) Oth	tic Crust patic Inv patic	t (B12) ertebrates Sulfide Od hizospher f Reduces Reduction ain in Res	lor (C1) res along d Iron (C4 on in Plow	4)	S 	Second Wa Se Dri Dra Dry Thi Cra Sal	dary Indical ater Marks diment De ft Deposits ainage Pate A-Season V In Muck Su ayfish Burra turation Vis allow Aquit	tors (2 or mo (B1) (Rivering posits (B2) (Rivering terns (B10) Nater Table (1) urface (C7) ows (C8) sible on Aerial	re required) ne) Riverine) ine)

Surface water present elsewhere in feature.
Water source for feature likely something leaking off-site.

Project/Site: Shifler Property City/County: Yol	o County Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaragates	
Investigator(s): Daria Snider Section, Township, Ra	ange: <u>Sention</u> 27+28/TION/RIE
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave,	convex, none): None Slope (%):
Subregion (LRR):Lat:	_ Long: Datum: NAD83
Soil Map Unit Name: Tolo silt long	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes _ X No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No _X	nd? YesNoX
opiana comparison to -1.	,
VEGETATION	
Absolute Dominant Indicator % Cover Species? Status  1	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2	Total Number of Dominant
3	Species Across All Strata: (B)
Total Cover:	Percent of Dominant Species
Sapling/Shrub Stratum	That Are OBL, FACW, or FAC: (A/B)
1	Prevalence Index worksheet:
2	Total % Cover of:Multiply by:
3	OBL species x 1 =
4	FACW species x 2 = FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
1. Cyrodon dartylon 100 V Frc	Column Totals: (A) (B)
2. Hirschfeldia intana tr N/L	20 20 20 20 20 20 20 20 20 20 20 20 20 2
3. Branus diandrus tr N/L	Prevalence Index = B/A =
4. Cardons pyrnocophalus tr N/L	Hydrophytic Vegetation Indicators:
5	✓ Dominance Test is >50%
6	Prevalence Index is ≤3.0¹     Morphological Adaptations¹ (Provide supporting)
7	data in Remarks or on a separate sheet)
Woody Vine Stratum	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2	be present.
Total Cover:  % Bare Ground in Herb Stratum	Hydrophytic Vegetation Present? Yes No
Remarks:	
	я

SOIL							Sampling Point: 2 N
Profile Desc	cription: (Describe	to the depth	needed to docun	nent the i	ndicator	r confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	3		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc	Texture Remarks
0-7"	104R3/2	100 -					gravelly day loan
							() 3 - 0
¹Type: C=C	oncentration, D=Depl	etion, RM=F	Reduced Matrix.	2Location	: PL=Pore	Lining, R	C=Root Channel, M=Matrix.
	Indicators: (Applica						Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Redo	x (S5)			1 cm Muck (A9) (LRR C)
Histic Ep	pipedon (A2)		Stripped Ma	70 50			2 cm Muck (A10) (LRR B)
Black Hi	stic (A3)		Loamy Much	y Mineral	(F1)		Reduced Vertic (F18)
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)
	d Layers (A5) (LRR C	<b>(</b> )	Depleted Ma	atrix (F3)			Other (Explain in Remarks)
1 cm Mu	ick (A9) (LRR D)		Redox Dark	Surface (	F6)		
	d Below Dark Surface	(A11)	Depleted Da				
	ark Surface (A12)		Redox Depr		8)		•
	lucky Mineral (S1)		Vernal Pools	(F9)			Indicators of hydrophytic vegetation and
	Gleyed Matrix (S4)						wetland hydrology must be present.
Restrictive L	_ayer (if present):						
Type:			-		20		
Depth (inc	ches):				190	100	Hydric Soil Present? Yes NoX_
Remarks:							
	al at 7".	. No	hydric.	163	indica	tors	defected.
YDROLOG Wetland Hyd	drology Indicators:		<del></del>				Secondary Indicators (2 or more required)
AND A PRINCIPAL OF THE PARTY.	ators (any one indica	tor is suffici	ent)				Water Marks (B1) (Riverine)
000000000000000000000000000000000000000	Partie - Artista Chiarciano	, or io outilor	Service Material Andreas of Control of	D11)			
Control of the contro	Water (A1) ter Table (A2)		Salt Crust (				Sediment Deposits (B2) (Riverine)
	ter Table (A2)		Biotic Crust		(D12)		Drift Deposits (B3) (Riverine)
_ Saturatio		· · · ·	Aquatic Inv				Drainage Patterns (B10)
	arks (B1) (Nonriverin		Hydrogen S				Dry-Season Water Table (C2)
	t Deposits (B2) (Non		Oxidized RI				A STATE OF THE PROPERTY OF THE
	osits (B3) (Nonriveri	ne)	Presence o				Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iron			d Soils (C	
- 10	on Visible on Aerial Im	nagery (B/)	Other (Expl	ain in Rei	marks)		Shallow Aquitard (D3)
	ained Leaves (B9)						FAC-Neutral Test (D5)
ield Observ			(22)				
Surface Wate		s No		hes):	7 "	-	
Vater Table I	Present? Ye	s No	Depth (inc	hes):	7 "	-	3
Saturation Proincludes capi			Depth (inc				and Hydrology Present? Yes No X
vescribe Kec	orded Data (Stream (	jauge, moni	toring wen, aenai p	notos, pre	wous insp	ecuons), I	ii avaliabie.
Damarke.			TO STATE OF THE PARTY OF THE PA				

No welland hydrology indicators detected.

Project/site: Shifler Property City/County: Yold	County Sampling Date: 9/10/10
Applicant/Owner: Teichert Aggragates	
Investigator(s): Daria Snider Section, Township, Ra	
Landform (hillslope, terrace, etc.): Terrace Local relief (concave,	- 63 Miner 프로그램 - 그리얼 프로그램
Subregion (LRR): Lat:	
	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Is the Sampled	
Hydric Soil Present? Yes X No within a Wetter	V
Wetland Hydrology Present? Yes X No	TesNo
Remarks:	
Seasonal wetland	
VEGETATION	· · · · · · · · · · · · · · · · · · ·
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) % Cover Species? Status	Number of Dominant Species
1	That Are OBL, FACW, or FAC: (A)
3	Total Number of Dominant Species Across All Strata: (B)
4.	
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	Prevalence Index worksheet:
1	
2	
4.	FACW species x 2 =
5.	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
1. Lolium multiplonum 80 / Fact	Column Totals: (A) (B)
2. Phalaris aquatica 15 Fact 3. Rumex reistus 5 Fact	Prevalence Index = B/A =
3. Rimex rrisks 5 Factor 4. Lartica services tr fac	Hydrophytic Vegetation Indicators:
	✓ Dominance Test is >50%
5	Prevalence Index is ≤3.0¹
7	Morphological Adaptations (Provide supporting
8	data in Remarks or on a separate sheet)
Total Cover: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum	
1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
Z	Hydrophytic
**Total Cover:  % Bare Ground in Herb Stratum % Cover of Biotic Crust	Vegetation Present? Yes X No
Remarks:	
Old contail stalks present	
All Character Division Discharge	
and the state of t	

SOIL		Sampling Point:
2012 - 2017 M	depth needed to document the indicator or	confirm the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Redox Features  Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
	8 10YR 416 2 C	
'Type: C=Concentration, D=Depletion, Hydric Soil Indicators: (Applicable to	RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore	Lining, RC=Root Channel, M=Matrix.  Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.
Restrictive Layer (if present):	M	wouldn't hydrology must be present.
Type:		
Depth (inches):		Hydric Soil Present? Yes X No
YDROLOGY		
Netland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is	sufficient)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonrivering		ving Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
<ul> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial Imagery</li> </ul>	Recent Iron Reduction in Plower (B7) Other (Explain in Remarks)	d Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
ield Observations:		
surface Water Present? Yes	No X Depth (inches):	
Vater Table Present? Yes	No V Depth (inches): 12"	
ncludes capillary fringe)	No Depth (inches):\(\subseteq^{i}\)	Wetland Hydrology Present? Yes X No
escribe Recorded Data (stream gauge,	monitoring well, aerial photos, previous inspe	ections), if available:
Remarks:		The state of the s
edusemodT.V		¥
	8	

Project/site: Shifler Property City/County: Yola	o County Sampling Date: 9/10/16
Applicant/Owner: Teichert Agaragates	>= : ED4는 SHENDER - 1,101에 HER - 1,101 - 1,101 - 1,101 - 1,101 - 1,101 - 1,101 - 1,101 - 1,101 - 1,101 - 1,101
Investigator(s): Daria Snider Section, Township, Ra	
Landform (hillslope, terrace, etc.): 10 race Local relief (concave,	
Subregion (LRR): Lat:	A
	NWI classification: NOOCE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?  Yes No _X Is the Samples	
Hydrophytic Vegetation Present?  Hydric Soil Present?  Yes No Is the Sampled within a Wetlar	
Wetland Hydrology Present? Yes No	nd; TesNo
Remarks:	200
Upland comparison to D	DP 3.
VEGETATION	3
Absolute Dominant Indicator Tree Stratum (Use scientific names.)	Dominance Test worksheet:
1	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2	No. of the second secon
3	Total Number of Dominant Species Across All Strata:(B)
4	
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum	Prevalence Index worksheet:
1	
3	OBL species x 1 =
4	FACW species x 2 =
5	FAC species x 3 =
Total Cover:	FACU species x 4 =
1. Cardous prenocophalus 50 V ML	UPL species x 5 =
1. Carabus pichnophalus 50 V DL 2. Lalium multislarum 10 Fac	Column Totals: (A) (B)
3. Brooms diandres 10 ML	Prevalence Index = B/A =
4	Hydrophytic Vegetation Indicators:
5	Dominance Test is >50%
6	Prevalence Index is ≤3.0 <sup>1</sup>
7	Morphological Adaptations (Provide supporting
8	data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation (Explain)
Total Cover:	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1	be present.
Total Cover:	Hydrophytic
% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 5	Vegetation Present? Yes No
Remarks:	
34	

Profile Desc	cription: (Describe t	o the depti	needed to docur	ment the ir	ndicator	or confirm	the absence	Sampling Point: _ of indicators.)	
Depth	Matrix			x Features				•	
(inches)	Color (moist)	%	Color (moist)			Loc <sup>2</sup>	Texture	Remarks	
0-12"	2.54 1/2	100					claule	can	
	-								
1400			- (n-11-)						
						-			
	<del></del>			-					
			Per determination						
	oncentration, D=Deple Indicators: (Applica					e Lining, R	C=Root Chann Indicators	el, M=Matrix. for Problematic Hydric S	oils <sup>3</sup> :
Histosol			Sandy Red		ecolists.			uck (A9) (LRR C)	
	oipedon (A2)		Stripped Ma	25 (5)				uck (A10) (LRR B)	
Black His			Loamy Muc		(F1)			ed Vertic (F18)	8
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Pa	rent Material (TF2)	
Stratified	d Layers (A5) (LRR C	)	Depleted M	atrix (F3)			Other (	Explain in Remarks)	
_ 1 cm Mu	ick (A9) (LRR D)		Redox Dark	Surface (F	F6)				
	d Below Dark Surface	(A11)	Depleted D:	ark Surface	e (F7)				
	ark Surface (A12)		Redox Depi	-	8)		-		
	fucky Mineral (S1)		Vernal Pool	s (F9)				of hydrophytic vegetation a	
Sandy G	Sleyed Matrix (S4)						wetland l	hydrology must be present	£0
								, ,,	•
estrictive L	ayer (if present):						T		
estrictive L			_						
Restrictive L Type: Depth (inc	ayer (if present):		_					Present? Yes	1.2
Restrictive L Type: Depth (inc Remarks:	hes):		Indicat	rs d	ieko	₹d.			1.2
Type:	hes):		Indicat	rs d	ie-Kc	₩.	Hydric Soil I		No_X
estrictive L Type: Depth (inc emarks:  DROLOG	hes):	soil		rs d	ie-kc	€d.	Hydric Soil I	Present? Yes	No X
Type: Depth (includermarks:  DROLOG etland Hyd imary Indica	ches):  GY  drology Indicators: eators (any one indicators)	soil	ent)		eko	₩.	Hydric Soil I	Present? Yesdary Indicators (2 or more ater Marks (B1) (Riverine)	No X
DROLOGERIAND IN SURFACE IN SURFAC	ches):  GY  drology Indicators: ators (any one indicators)	soil	ent) Salt Crust	(B11)	ieko	ted.	Hydric Soil I	Present? Yesdary Indicators (2 or more ater Marks (B1) (Riverine)	No X
DROLOG etland Hydimary Indica Surface V High Wat	GY drology Indicators: ators (any one indicators (A1) ter Table (A2)	soil	ent) Salt Crust Biotic Crus	(B11) st (B12)	Jacobson Pr	44.	Second We Se	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine if Deposits (B3) (Riverine)	No X
DROLOG etland Hyd imary Indica Surface W High Wat Saturatio	GY  drology Indicators: ators (any one indicators (A1) ter Table (A2) on (A3)	Soil	ent) Salt Crust Biotic Crus Aquatic Inv	(B11) st (B12) vertebrates	: (B13)	€d.	Second  Second  Second  Dri	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine ainage Patterns (B10)	No X
DROLOG etland Hyd imary Indica Surface N High Wat Saturation Water Ma	GY  drology Indicators: ators (any one indicators (A1) ter Table (A2) on (A3) arks (B1) (Nonrivering	Soil	ent)  Salt Crust Biotic Crus Aquatic Inv	(B11) st (B12) vertebrates Sulfide Odd	i (B13) or (C1)		Second  Second  Second  Dri  Dri  Dri	dary Indicators (2 or more ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2)	No X
DROLOG etland Hyd imary Indica Surface V High Wat Saturation Water Ma Sediment	GY  dirology Indicators: ators (any one indicators (A1) ter Table (A2) on (A3) arks (B1) (Nonrivering to Deposits (B2) (Deposits (B2) (Deposi	Son l	ent)  Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized F	(B11) st (B12) vertebrates Sulfide Ode	i (B13) or (C1) es along l	.iving R∞	Second  Second  Second  Dri Dri ts (C3) Th	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7)	No X
Depth (incomerks:  Depth (incomerks:  DROLOG  etland Hyd  imary Indication  Surface Water Mater	ches):  Ches):	Son l	ent)  Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R	(B11) st (B12) vertebrates Sulfide Ode Rhizosphere of Reduced	i (B13) or (C1) es along l	_iving R∞	Second	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8)	required) erine)
PERFORMANCE  Type: Depth (included in the content of the con	GY  frology Indicators: ators (any one indicators) ter Table (A2) on (A3) arks (B1) (Nonrivering to Deposits (B2) (Nonrivering Soil Cracks (B6)	cor is suffici	ent)  Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence	(B11) vertebrates Sulfide Ode Rhizosphere of Reduced n Reductio	i (B13) or (C1) es along I d Iron (C4 on in Plow	_iving R∞	Second   War   Se   Dri   Dr.   Cr.   Cr.   Co.   Sa	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2 in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial II	required) erine)
Depth (incommarks:  Depth (incommarks:  DROLOG  etland Hyd  imary Indication  Saturation  Water Ma  Sediment  Drift Depth  Surface S  Inundation	GY  drology Indicators: ators (any one indicators) atter (A1) ter Table (A2) arks (B1) (Nonrivering t Deposits (B2) (Nonrivering soil Cracks (B6) an Visible on Aerial In	cor is suffici	ent)  Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence	(B11) st (B12) vertebrates Sulfide Ode Rhizosphere of Reduced	i (B13) or (C1) es along I d Iron (C4 on in Plow	_iving R∞	Second	dary Indicators (2 or more ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial In allow Aquitard (D3)	required) erine)
estrictive L Type: Depth (inc emarks:  //DROLOG /etland Hyd rimary Indic: Surface N High Wat Saturatio Water Ma Sediment Drift Depty // Surface S Inundatio Water-State	ches):  Ches):  Ches):  Ches):  Ches):  Ches):  Ches):  Ches):  Ches (Ches):  Ches (Ch	cor is suffici	ent)  Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence	(B11) vertebrates Sulfide Ode Rhizosphere of Reduced n Reductio	i (B13) or (C1) es along I d Iron (C4 on in Plow	_iving R∞	Second	dary Indicators (2 or more ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2 in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial II	required) erine)
Pestrictive L Type: Depth (incline in the content of the conte	ches):  Ches):	cor is suffici	ent)  Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Other (Exp	(B11) st (B12) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio	i (B13) or (C1) es along l d Iron (C4 n in Plow narks)	_iving R∞	Second	dary Indicators (2 or more ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial In allow Aquitard (D3)	required) erine)
PERFORMANCE  Type: Depth (included in the content of the con	ches):  GY  Irology Indicators: ators (any one indicators) ators (A1) ter Table (A2) on (A3) arks (B1) (Nonrivering to Deposits (B2) (Nonrivering to Deposits (B3) (Nonrivering Soil Cracks (B6) on Visible on Aerial Imained Leaves (B9) artions: ar Present?  Yes	cor is suffici	ent)  Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence Company Recent Iro Other (Exp	(B11) vertebrates Sulfide Odd Rhizosphere of Reduced n Reductio	i (B13) or (C1) es along I d Iron (C4 on in Plow	_iving R∞	Second	dary Indicators (2 or more ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial In allow Aquitard (D3)	required) erine)

(includes capillary fringe)

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

Remarks:

Project/Site: Shifler Property City/County: Yold	o County Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaragates	
Investigator(s): Daria Snider Section, Township, Ra	inge: <u>Section</u> 27+28/TION/RIE
Landform (hillslope, terrace, etc.): Berm Local relief (concave,	convex, none): None Slope (%):
Subregion (LRR): Lat:	Long: Datum: NADR 3
Soil Map Unit Name: Yolo Silt loam	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes X No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:  Yes NoX	r and the second
Upland comparison to DP 6.	
VEGETATION	
Tree Stratum (Use scientific names.)  Absolute Dominant Indicator Species? Status  1	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Number of Dominant
3.	Species Across Ali Strata: (B)
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum	
1	Prevalence Index worksheet:
2	
3	FACW species x 2 =
5	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
1. Phaiaris aquatica 80 V Fac	Column Totals: (A) (B)
2 Lepidium latifalium 20 V Facio	Description of the second
4. Cardus rucaraphalus de 12	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
4. Cardus ryenrophalus de 12/2	✓ Dominance Test is >50%
6	Prevalence Index is ≤3.0¹
6	Morphological Adaptations¹ (Provide supporting
8.	data in Remarks or on a separate sheet)
Woody Vine Stratum	Problematic Hydrophytic Vegetation (Explain)
1	Indicators of hydric soil and wetland hydrology must
2	be present.
Total Cover:  % Bare Ground in Herb Stratum % Cover of Biotic Crust	Hydrophytic Vegetation Present? Yes _X No
Remarks:	
₩.	

OIL							Sampling Point: 5A
Profile Desc	ription: (Describe to t	he depth needed	to document	the indicator	or confirm	the absence of indica	
Depth	Matrix	The state of the s	Redox Fea				
(inches)	Color (moist)	% Color (	moist) 9		_Loc <sup>2</sup>	Texture	Remarks
0-12"	2.5 y 3/2	100				Silt loam	
		***					
		703					
						110	
	oncentration, D=Depletion				e Lining, R	C=Root Channel, M=Ma	
-17000000000000000000000000000000000000	ndicators: (Applicable						lematic Hydric Soils <sup>3</sup> :
Histosol	1 17		andy Redox (S5			1 cm Muck (A9)	W. 25
	ipedon (A2)		ripped Matrix (S			2 cm Muck (A10	
Black Histic (A3) Loamy Mucky Mineral (F1)				Reduced Vertic			
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3)				Red Parent Mate Other (Explain in			
	ck (A9) (LRR D)		edox Dark Surfa			Other (Explain ii	i Kemarks)
	Below Dark Surface (A		epleted Dark Su				
	rk Surface (A12)	60 Date	dox Depressio	(5) (5)			
Sandy M	ucky Mineral (S1)		ernal Pools (F9)	17 (5)		3Indicators of hydrop	hytic vegetation and
	leyed Matrix (S4)						y must be present.
Restrictive L	ayer (if present):						
Type:							
Depth (inc	hes):			es.		Hydric Soil Present?	Yes No
Remarks:						Charles Charles Control of Control	
No.	hydric s	oil ind	icators	det	ected.	,	
YDROLOG							
Vetland Hyd	rology Indicators:	112-0-2-11				Secondary India	cators (2 or more required
rimary Indica	ators (any one indicator	is sufficient)				Water Mark	s (B1) (Riverine)
Surface V	Water (A1)	s	Salt Crust (B11)			Sediment D	Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust (B12)						Drift Depos	its (B3) (Riverine)
Saturation	n (A3)	^	quatic Inverteb	orates (B13)		Drainage P	atterns (B10)
Water Ma	arks (B1) (Nonriverine)	⊦	lydrogen Sulfid	e Odor (C1)		Dry-Seasor	Water Table (C2)
Sediment	Deposits (B2) (Nonrive	erine) C	xidized Rhizos	pheres along	Living R∞l	ts (C3) Thin Muck	Surface (C7)
Drift Depo	osits (B3) (Nonriverine)		resence of Red				Irrows (C8)

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suffi	Water Marks (B1) (Riverine)	
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B)	Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) ots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
	No X Depth (inches): 12"	
	No Depth (inches): 12"	.,
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches): 12" Wet	land Hydrology Present? Yes No
	onitoring well, aerial photos, previous inspections)	, if available:
Remarks:		
( )	1	
NO wetland	hydrology indica	tors detected.
100 WETANA	redectional recess	MY CIE LECTEC!

Project/site: Shifler Projectu City/County: Yola	Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaragates	State: KA Sampling Point:
- · · · · · · · · · · · · · · · · · · ·	nge: Section 27 + 28/TIDN/RIE
Landform (hillslope, terrace, etc.):	그리고 그리고 그리고 있다면 그는 그리고 있는 그리고 그리고 그리고 있다면 되었다. 그리고 있는 그리고 그리고 있다고 있다고 있다고 있다고 있다.
Subregion (LRR): Lat:	
	NWI classification: NOOR
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	
	"Normal Circumstances" present? Yes No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Hydrophytic Vegetation Present?  Yes No _X Is the Sample of	
Hydric Soil Present? Yes No udthin a Wester	A Company (Asia)
Wetland Hydrology Present? Yes No Wale	ers No
Remarks:	0.
Pand	
VEGETATION	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) <u>% Cover Species? Status</u>	Number of Dominant Species
1	That Are OBL, FACW, or FAC: (A)
3.	Total Number of Dominant
4.	Species Across All Strata: (B)
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	A STATE OF THE RESIDENCE OF THE RESIDENC
1	Prevalence Index worksheet:
2	
3	FACW species x 2 =
5.	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
1,	Column Totals: (A) (B)
2	Prevalence Index = B/A =
3	Hydrophytic Vegetation Indicators:
5	Dominance Test is >50%
6	Prevalence Index is ≤3.01
7	Morphological Adaptations (Provide supporting
8	data in Remarks or on a separate sheet)
Woody Vine Stratum	Problematic Hydrophytic Vegetation (Explain)
1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2	be present.
Total Cover:	Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Vegetation
Remarks:	Present?
of theyonard, although sparse d	end let live
Fenture is invegetated, although sparse d	mparen bititalism

Profile Description: (Describe	to the depth needed	d to document the in	dicator or	confirm t	he absence	of indicato	rs.)	
Depth Matrix		Redox Features						
(inches) Color (moist)	% Color	(moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
		<del></del>				7		
Shirt St.								
	·	<del></del>			<del></del>			
Type: C=Concentration, D=De	oletion, RM=Reduced	Matrix. <sup>2</sup> Location:	PL=Pore i	Linina. RC:	=Root Chann	eł. M=Matri	Χ.	
Hydric Soil Indicators: (Appli							natic Hydric S	oils³:
Histosol (A1)		andy Redox (S5)			1 cm M	uck (A9) (L	RR C)	
Histic Epipedon (A2)		tripped Matrix (S6)				uck (A10) (		
Black Histic (A3)		oamy Mucky Mineral	(F1)			d Vertic (F		**
Hydrogen Sulfide (A4)		oamy Gleyed Matrix (				rent Materia		
Stratified Layers (A5) (LRR		epleted Matrix (F3)	/			Explain in R		
1 cm Muck (A9) (LRR D)	PURV CT TO THE PURPLE OF THE P	edox Dark Surface (F	6)		0.1101 (	_xpiaiii iii ii	icinaiks)	
Depleted Below Dark Surface		epleted Dark Surface						
Thick Dark Surface (A12)	(A) (A) (A)	edox Depressions (F	(A) (B)					
Sandy Mucky Mineral (S1)		ernal Pools (F9)	0)		3Indicators	of hydrophy	tic vegetation a	nd
Sandy Gleyed Matrix (S4)	•	citiai i 00i3 (i 0)					nust be present	
Restrictive Layer (if present):				T	wouldn't	iyarology ii	ascoc present	
Type:			63			20 STEE	7600	
Depth (inches):			100		Hydric Soil	Present?	Yes	No
Remarks:								
No soil pit a	W. 4000-001							
TOO SON PIT A	va.							
	$\sim$							
YDROLOGY								
Vetland Hydrology Indicators					Secon	dary Indicat	ors (2 or more	required)
Primary Indicators (any one indicators	ator is sufficient)		-1111-111		W	ater Marks	(B1) (Riverine)	)
Surface Water (A1)		Salt Crust (B11)			Se	diment Dec	osits (B2) (Riv	rerine)
High Water Table (A2)	Miles Co.	Biotic Crust (B12)					(B3) (Riverine	
Saturation (A3)		Aquatic Invertebrates	(B13)			ainage Patt		,
_ Gataration (75)	A 10 10 10 10 10 10 10 10 10 10 10 10 10						[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	21
_ Water Marks (B1) (Nonriver		Hydrogen Sulfide Odd					Vater Table (C2	2)
_ Sediment Deposits (B2) (No	12.00 to 12.00 to 42.00 to 42	Oxidized Rhizosphere		ing Roots		in Muck Su		
Drift Deposits (B3) (Nonrive		Presence of Reduced				ayfish Burro	ows (C8)	
∠ Surface Soil Cracks (B6)	1	Recent Iron Reduction	n in Plowed	d Soils (C6	) Sa	turation Vis	ible on Aerial I	magery (
		) X Other (Explain in Remarks)						

OHWM

OHWM present + indicated by the edge of vegetation.

Yes X No Depth (inches):

Yes \_\_\_ No \_\_\_\_ Depth (inches):

Yes X No Depth (inches):

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

Water-Stained Leaves (B9)

Field Observations:

Surface Water Present?

Water Table Present?

Saturation Present? (includes capillary fringe)

Remarks:

Wetland Hydrology Present? Yes X No

FAC-Neutral Test (D5)

Project/Site: Shifler Projecty	City/County: Yold	S County Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaregates		State: CA Sampling Point: -/A)
Investigator(s): Daria Snider	Section, Township, Ra	nge: Section 27+28/TIDN/RIE
Landform (hillslope, terrace, etc.): Carolinucted Casin		
		Long: Datum: NADR3
Soil Map Unit Name: Yolo silt long		
Are climatic / hydrologic conditions on the site typical for this time of		
Are Vegetation, Soil, or Hydrology significant		"Normal Circumstances" present? YesX No
Are Vegetation, Soil, or Hydrology naturally p		eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin		
Hydrophytic Vegetation Present? Yes No _X		
Hydric Soil Present? Yes No _X	is the sampled	Area   No ×   No
Wetland Hydrology Present? Yes X No	-1.	790
Remarks: Suspect DP. This area of	stears to he	ave been used as a determin
Part in the part but does not	appear to b	e in use currently Representative
of two such constructed basis	us on the	e wite
VEGETATION		
Absolute		Dominance Test worksheet:
	er Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC: (A)
3		Total Number of Dominant Species Across All Strata: (B)
4		
Total Cover:	_	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum		
1		Prevalence Index worksheet:
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
Total Cover:	_	FACU species x 4 =
1. Phalais paradoxa 35	/ N/L	UPL species x 5 =
2. Avena fatua 5	N/L	Column Totals: (A) (B)
3. Bromus Inredenceus 5	Fac U-	Prevalence Index = B/A =
4. Bromus diandrus 5		Hydrophytic Vegetation Indicators:
5		Dominance Test is >50%
6	-Law - I - I - I - I - I - I - I - I - I -	Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting
7		data in Remarks or on a separate sheet)
Total Cover:		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum	-	l
1		Indicators of hydric soil and wetland hydrology must be present.
2		
Total Cover:	- 60	Hydrophytic Vegetation
% Bare Ground in Herb Stratum	Crust SC	Present? Yes No X
Remarks:		
		·
. 8		

$\sim$		
30	ш	
		_

Sampling Point: 7 N

Depth				
(inches) Co	Matrix olor (moist)	%	Redox Features  Color (moist) % Type Loc²	Texture Remarks
1000	5 Y 3/2	100	70 770 200	
010 1	31-72	100		dayloan
		/ <u></u>		
¹Type: C=Concentr	ration D=Denie	etion RM=Re	educed Matrix. <sup>2</sup> Location: PL=Pore Lining, F	PC=Root Channel M=Matrix
			Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
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 Sulfid	S57 - 2 6 4 10 3 10 5		Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layer		)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9)			Redox Dark Surface (F6)	
Depleted Below		(A11)	Depleted Dark Surface (F7)	
Thick Dark Surf	face (A12)		Redox Depressions (F8)	
Sandy Mucky N	fineral (S1)		Vernal Pools (F9)	3Indicators of hydrophytic vegetation and
Sandy Gleyed I	Matrix (S4)			wetland hydrology must be present.
Restrictive Layer (	if present):			
Туре:		100 A	-1	
Depth (inches): _			— 1 — 121 — 1	Hydric Soil Present? Yes NoX_
Remarks:				
LENOSIN	AC O	. 100	hydric soil india	200
WEDO! 66%			0	
			<u> </u>	
Wetland Hydrology				Secondary Indicators (2 or more required)
		tor is sufficier	nt)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)
Wetland Hydrology	any one indica	tor is sufficier	nt) Salt Crust (B11)	
Wetland Hydrology Primary Indicators (a	any one indica (A1)	tor is sufficie	ACCOMANZADA ON OAUNAPADA	Water Marks (B1) (Riverine)
Wetland Hydrology Primary Indicators (a Surface Water (	any one indica (A1) Ile (A2)	tor is sufficier	Salt Crust (B11)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Primary Indicators (a Surface Water ( High Water Tab	any one indica (A1) (Ie (A2)	2007	Salt Crust (B11) Biotic Crust (B12)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Wetland Hydrology Primary Indicators (s Surface Water ( High Water Tab Saturation (A3)	any one indical (A1) le (A2) 1) (Nonriverin	ne)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	<ul> <li>Water Marks (B1) (Riverine)</li> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> </ul>
Wetland Hydrology Primary Indicators (s Surface Water ( High Water Tab Saturation (A3) Water Marks (B	any one indical (A1) le (A2) 1) (Nonriverin sits (B2) (Noni	ne) riverine)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	<ul> <li>Water Marks (B1) (Riverine)</li> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> </ul>
Primary Indicators (a Surface Water ( High Water Tab Saturation (A3) Water Marks (B Sediment Depo	any one indical (A1) lle (A2) 1) (Nonriverin sits (B2) (Nonri 33) (Nonriverin	ne) riverine)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Living Roce</li> </ul>	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
Wetland Hydrology Primary Indicators (a Surface Water ( High Water Tab Saturation (A3) Water Marks (B Sediment Depo	any one indical (A1) lle (A2) 1) (Nonriverir sits (B2) (Nonri 33) (Nonriverir acks (B6)	ne) riverine) ne)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Living Roc</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed Soils (G</li> </ul>	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
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Project/Site: Shifler Property City/County: Yol	o County Sampling Date: 9/10/10
Applicant/Owner: Teicher+ Agasagates	
Investigator(s): Daria Snider Section, Township, Ra	
Landform (hillslope, terrace, etc.): Constructed James Local relief (concave,	convex. none): Slone (%):
Subregion (LRR): Lat:	
1970 N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes X No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	
Hydrophytic Vegetation Present?  Yes No _X	
Hydric Soil Present? Yes No X	
Wetland Hydrology Present? Yes X No Water	ers No
Remarks: Irrigation canal.	ee.
211192011	
VEGETATION	
Absolute   Dominant Indicator   Tree Stratum (Use scientific names.)   Modern   Species?   Status   Status	Dominance Test worksheet:
1	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2	Total Number of Dominant
3	Species Across All Strata: (B)
4	Percent of Dominant Species
Total Cover:	That Are OBL, FACW, or FAC: (A/B)
1	Prevalence Index worksheet:
2	Total % Cover of: Multiply by:
3	OBL species x 1 =
4	FACW species x 2 =
5	FAC species x 3 =
Total Cover:	FACU species x 4 =
1	UPL species x 5 = Column Totals: (A) (B)
2	Column rotals (A) (B)
3	Prevalence Index = B/A =
4	Hydrophytic Vegetation Indicators:
5	Dominance Test is >50%
6	Prevalence Index is ≤3.0¹     Morphological Adaptations¹ (Provide supporting
7	data in Remarks or on a separate sheet)
8 Total Cover:	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum	
1	Indicators of hydric soil and wetland hydrology must be present.
2	
Total Cover:	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Present? Yes No X
Remarks:	
Feature is invegetated, but Echinodorus 'colona creur on edges.	berteroi + Echinochloa
colona orcer on edges.	

Profile Desc	cription: (Describe to	the denth r	needed to docu	ment the indicator	or confirm th	ne absence o	Sampling Point: _	
Depth	Matrix	o the depth i		ox Features	or committee	ie abserice o	indicators.)	
(inches)	Color (moist)	%	Color (moist)	% Type	Loc2	Texture	Remarks	
					-		<del></del>	
							113-1111-7	
¹Type: C=Co	oncentration, D=Deple	tion RM=Re	duced Matrix	2l ocation: Pl =Po	re Lining RC:	-Root Channe	al M=Matrix	-
	Indicators: (Applicat				ic Lining, ivo-		or Problematic Hydric So	oils³:
Histosol			Sandy Red	DOCUMENT SANCTONES			uck (A9) (LRR C)	
Histic Ep	oipedon (A2)		Stripped Ma	atrix (S6)		2 cm Mu	uck (A10) (LRR B)	
Black His			Loamy Mud	cky Mineral (F1)		Reduce	d Vertic (F18)	
	n Sulfide (A4)			yed Matrix (F2)			rent Material (TF2)	
	Layers (A5) (LRR C)		Depleted M			Other (E	Explain in Remarks)	
	ick (A9) (LRR D)	/A 445	Redox Dark	[11] 원래(11] 경영(12] (12] (12] (12] (12] (12] (12] (12]				
	d Below Dark Surface	(A11)		Park Surface (F7)				
	ark Surface (A12) Nucky Mineral (S1)		Vernal Poo	ressions (F8)		3Indicators of	f hydrophytic vegetation ar	
	Gleyed Matrix (S4)		vernar Foo	15 (19)			ydrology must be present.	
							yardingy made be processe.	
Restrictive L	Layer (if present):							
Type:			-			Hvdric Soil P	Present? Yes	No λ
Type:		· · · · · · · · · · · · · · · · · · ·	•)		M	Hydric Soil P	Present? Yes	No_ <u>λ</u>
Type: Depth (inc Remarks:		due	- 	onere te		-	Present? Yes	No X
Type: Depth (incomments:  O  YDROLOG	shes):	due	- 	nere le		frak.		
Type: Depth (income Remarks:	Scal Pi+  GY  drology Indicators:	· · · · · · · · · · · · · · · · · · ·		oncrete		fra-K.	lary Indicators (2 or more r	
Type: Depth (inc Remarks:  \( \hat{\D} \cappa \)  YDROLOG Wetland Hyd Primary Indic	GY drology Indicators: eators (any one indicators)	· · · · · · · · · · · · · · · · · · ·	t)			fra-K.		
Type:	GY drology Indicators: eators (any one indicate Water (A1)	· · · · · · · · · · · · · · · · · · ·	t) Salt Crust	(B11)		Second X Wa	lary Indicators (2 or more r	equired)
Type:	GY drology Indicators: eators (any one indicators) Water (A1) ter Table (A2)	· · · · · · · · · · · · · · · · · · ·	t) Salt Crust Biotic Crus	(B11) st (B12)		SecondX Wa SecDrit	lary Indicators (2 or more re ter Marks (B1) (Riverine) diment Deposits (B2) (Rive ft Deposits (B3) (Riverine)	equired) erine)
Type:	GY drology Indicators: eators (any one indicators) Water (A1) ter Table (A2) on (A3)	or is sufficien	t) Salt Crust Biotic Crus Aquatic In	(B11) st (B12) vertebrates (B13)		Second	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) sinage Patterns (B10)	equired) erine)
Type:	GY drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine	or is sufficien	t) Salt Crust Biotic Crust Aquatic In Hydrogen	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1)	subc	Second X Wa Sec Drit Dra Dra Dry	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) sinage Patterns (B10) r-Season Water Table (C2)	equired) erine)
Type: Depth (incomplete incomplete inc	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine t Deposits (B2) (Nonri	or is sufficien	t) Salt Crust Biotic Crus Aquatic In Hydrogen Oxidized F	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along	Sいわこ	Second  X Wa  Sec  Drit  Dra  Dry  (C3)	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10)	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine t Deposits (B2) (Nonriverine sosits (B3) (Nonriverine	or is sufficien	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C-	Subc	Second  X Wa Sec Drit Dry C(C3) Thi Cra	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) 4-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8)	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine t Deposits (B2) (Nonriverine sosits (B3) (Nonriverine Soil Cracks (B6)	or is sufficien e) iverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con on Reduction in Ploy	Subc	Second  X Wa Sec Drift Dra Dra Cra Sat	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) (Passeson Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial In	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine to Deposits (B2) (Nonriverine soil Cracks (B6) on Visible on Aerial Ima	or is sufficien e) iverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	(B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Plov plain in Remarks)	Subc	Second  X Wa Second Drit Dra Dra Dry (C3) Thi Cra Sat Sha	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) (*Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) duration Visible on Aerial Intellow Aquitard (D3)	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine t Deposits (B2) (Nonriverine soil Cracks (B6) on Visible on Aerial Imageined Leaves (B9)	or is sufficien e) iverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con on Reduction in Ploy	Subc	Second  X Wa Second Drit Dra Dra Dry (C3) Thi Cra Sat Sha	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) (Passeson Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) turation Visible on Aerial In	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine t Deposits (B2) (Nonriverine soits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Ima eatined Leaves (B9) evations:	or is sufficien e) iverine) ne) agery (B7)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Ploy plain in Remarks)	Subc	Second  X Wa Second Drit Dra Dra Dry (C3) Thi Cra Sat Sha	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) (*Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) duration Visible on Aerial Intellow Aquitard (D3)	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine to Deposits (B2) (Nonriverine soil Cracks (B6) on Visible on Aerial Ima ained Leaves (B9) vations: er Present? Yes	or is sufficien  e) iverine) agery (B7)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	t (B11) st (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduced Iron in Plov plain in Remarks)	Living Roots 4) yed Soils (C6)	Second  X Wa Second Drit Dra Dra Dry (C3) Thi Cra Sat Sha	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10) (*Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) duration Visible on Aerial Intellow Aquitard (D3)	equired) erine)
Type:	GY  drology Indicators: eators (any one indicate Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine to Deposits (B2) (Nonriverine soil Cracks (B6) on Visible on Aerial Imagined Leaves (B9) vations: er Present? Yes Present? Yes	or is sufficient  e) iverine) agery (B7)  No No _	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc X Other (Exp	vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Ploy plain in Remarks)	Living Roots 4) yed Soils (C6)	Second  X Wa Sec Drit Dra Dry (C3) Thi Cra Sat FAC	lary Indicators (2 or more reter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dimage Patterns (B10)	equired) erine)

OHWM present and indicated by water marks + presence of vegetation above OHWM.

Remarks:

Project/Site: Shifler Property Cit	ity/County: Yolo County Sampling Date: 9/10/	110
Applicant/Owner: Teichert Aggragates	- AND THE CONTROL OF THE PROPERTY OF THE PROPE	
	ection, Township, Range: Section 27 + 28/TION	IRIF
	ocal relief (concave, convex, none): Slope (%):	
	Long: Datum: NAD	
	NWI classification: None	- 178
Are climatic / hydrologic conditions on the site typical for this time of year?		<del>,</del> &
Are Vegetation, Soil, or Hydrology significantly dis		
Are Vegetation, Soil, or Hydrology naturally proble	take an industrial take and a surface surface and a surfac	_
100 100 100 100 100 100 100 100 100 100	sampling point locations, transects, important features, et	tc. '
Hydrophytic Vegetation Present? Yes No _X	le the Complet Area	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes NoX	
Wetland Hydrology Present? Yes No _X	William a Wordand 1 165 No	
Remarks:		
Upland comparison to D	P 8.	
VEGETATION		
	Dominant Indicator Dominance Test worksheet:	
Tree Stratum (Use scientific names.) <u>% Cover S</u> 1	Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: (A)	,
2		
3.	Lotal Number of Dominant	
4		
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B	3)
Sapling/Shrub Stratum		
1		
3.		
4	The second secon	
5	x 3 =	
Total Cover:	FACU species x 4 =	
Herb Stratum  1. Soloolo tra avs	FACU   Column Totales   X 5 =	
2. Amaranhus blitordes tr	Fz.c(V)   Column Totals:(A)(B)	)
3. Chenoton dium album tr	Fac Prevalence Index = B/A =	
4	Hydrophytic Vegetation Indicators:	
5		
6		
7	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)	
8	Problematic Hydrophytic Vegetation (Explain)	
Woody Vine Stratum		
1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
2	be present.	
Total Cover:	Hydrophytic	
% Bare Ground in Herb Stratum _ ~ 1000° % Cover of Biotic Crus	st Vegetation Present? Yes No _X_	
Remarks:		-
Marthe in was to led as aren.	the due to herbicide	
Mostly in vegetated, apparen-	J	
spraying.		

Sampling Point: 7N

Profile Description: (Describe to the Depth Matrix	Redox Features	
(inches) Color (moist) %		<sup>2</sup> Texture Remarks
0-12" 2.574/2 10	0	- Sandy loam
<del></del>		
	<del></del>	11 <del>20</del>
	RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Liniz	
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
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)	[1]	
Thick Dark Surface (A12)	Redox Depressions (F8)	315 41 4
<ul><li>Sandy Mucky Mineral (S1)</li><li>Sandy Gleyed Matrix (S4)</li></ul>	Vernal Pools (F9)	Indicators of hydrophytic vegetation and wetland hydrology must be present.
Restrictive Layer (if present):		wettand flydrology must be present.
Type:		
	<del></del>	11.44. 2.12. 12. 14. Y
Depth (inches):		Hydric Soil Present? Yes No
		¥ #
12. 1		
	- 1.	l
No nyaric soil	indicadors detected	<u>.</u>
No nyane soil	indicadors detected	
0	indicadors detected	
HYDROLOGY	indicadors detected	Secondary Indicators (2 or more required)
HYDROLOGY		Secondary Indicators (2 or more required)
IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:	sufficient)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)
IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:  Surface Water (A1)	sufficient) Salt Crust (B11)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)
IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some surface Water (A1)  High Water Table (A2)	sufficient) Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)
IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some surface Water (A1)  High Water Table (A2)  Saturation (A3)	sufficient)  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)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)	sufficient)  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)  Dry-Season Water Table (C2)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)	sufficient)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)	sufficient)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  ne) Oxidized Rhizospheres along Living 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)  Dry-Season Water Table (C2)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is 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)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) ne) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some 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	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) ne) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) ne) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some 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  Water-Stained Leaves (B9)  Field Observations:	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) ne) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol (B7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:  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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Yes	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Solution (B7) Other (Explain in Remarks) No Depth (inches): 12 "	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is:  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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Yes	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Yes  Water Table Present?  Yes  Saturation Present?  Yes	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Water Table Present?  Yes  Saturation Present?  Yes  (includes capillary fringe)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No X Depth (inches): 12" No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Water Table Present?  Yes  Saturation Present?  Yes  (includes capillary fringe)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No X Depth (inches): 12" No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge,	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed So  (B7)  Other (Explain in Remarks)  No X Depth (inches): 12"  No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  Saturation Present? Yes  Cincludes capillary fringe)  Describe Recorded Data (stream gauge,	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed So  (B7)  Other (Explain in Remarks)  No X Depth (inches): 12"  No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is see 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  Saturation Present? Yes  Cincludes capillary fringe)  Describe Recorded Data (stream gauge,	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed So  (B7)  Other (Explain in Remarks)  No X Depth (inches): 12"  No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (any one indicator is some 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  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  includes capillary fringe)  Describe Recorded Data (stream gauge,	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed So (B7) Other (Explain in Remarks)  No X Depth (inches): 12" No X Depth (inches): 12"	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Roots (C3) Thin Muck Surface (C7)  Crayfish Burrows (C8)  ills (C6) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No

Project/Site: Shifler Property City/County: Yol	lo County Sampling Date: 9/10/10
Applicant/Owner: Teichert Aggregates	State: A Sampling Point:
Investigator(s): Daria Smider Section, Township, R	lange: Sention 27 + 28/TION/RI
Landform (hillslope, terrace, etc.): Constructed channel Local relief (concave	e, convex, none): Slope (%):
Subregion (LRR): Lat:	
Soil Map Unit Name: Yolo Silt Loam	NWI classification: Nane
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic? (If r	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 Sample	ad Area
Hydric Soil Present? Yes No No	V
Wetland Hydrology Present? Yes No No War-	ters
Remarks:	116
Irrigation canal	
VEGETATION	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) <u>% Cover Species? Status</u>	Inditibet of Dominant Species
1	That Are OBL, FACW, or FAC: (A)
2	Total Number of Dominant
4	Species Across All Strata: (B)
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	That Are OBL, FACW, of FAC: (A/B)
1	Prevalence Index worksheet:
2	Total % Cover of: Multiply by:
3	OBL species x 1 = FACW species x 2 =
5	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herb Stratum	UPL species x 5 =
<u></u>	- Column Totals: (A) (B)
2	Prevalence Index = B/A =
3	Hydrophytic Vegetation Indicators:
4.	Dominance Test is >50%
6	Prevalence Index is ≤3.01
7	Morphological Adaptations¹ (Provide supporting
8	data in Remarks or on a separate sheet)
Total Cover:	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1	be present.
Total Cover:	Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Vegetation
Remarks:	Present? Yes No X
channel is invegetated, but banks	support Polygonum sp.
Channel is unvergetated, but banks Paspalum dilatatum, sarghum halapense, o colora, Leptochloa fasicularis, + Cynodon	yperus esculentus, tchinochion
colon, Leptochlon fasicolaris, + Cynodon	dactular, etc.
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				Sampling Point:
Profile Des	scription: (Describe to th	ne depth needed to document the indicato	r or confirm the absen	
Depth	Matrix	Redox Features		
(inches)	Color (moist)	% Color (moist) % Type	Loc <sup>2</sup> Texture	Remarks
	· · · · · · · · · · · · · · · · · · ·			
	) <del>-0.00</del>			
		3		
	Concentration, D=Depletion Indicators: (Applicable	to all LRRs, unless otherwise noted.)	ore Lining, RC=Root Ch Indicate	annel, M=Matrix.  ors for Problematic Hydric Soils <sup>3</sup> :
Histoso	I (A1)	Sandy Redox (S5)	1 cr	n Muck (A9) (LRR C)
Histic E	pipedon (A2)	Stripped Matrix (S6)	2 cr	n Muck (A10) (LRR B)
	listic (A3)	Loamy Mucky Mineral (F1)	1	luced Vertic (F18)
	en Sulfide (A4)	Loamy Gleyed Matrix (F2)	Rec	Parent Material (TF2)
	d Layers (A5) (LRR C)	Depleted Matrix (F3)	Oth	er (Explain in Remarks)
	uck (A9) (LRR D)	Redox Dark Surface (F6)		
	d Below Dark Surface (A1			
	ark Surface (A12)	Redox Depressions (F8)	31	ad bd
	Mucky Mineral (S1) Gleyed Matrix (S4)	Vernal Pools (F9)		ors of hydrophytic vegetation and nd hydrology must be present.
	Layer (if present):		Wetia	nd frydrology mast be present.
	Layor (ii prosoni).		1	
			1	
Type:	chae).		. Hydric S	oil Procent? Von No
Type: Depth (in	ches):		Hydric S	oil Present? Yes No
Type: Depth (in Remarks:	ches):			
Type: Depth (in Remarks:	ches):	due to depth an		
Type: Depth (in: Remarks:	ches):			
Type:	ches):		d speed c	
Type:	ches):	due to depth an	d speed c	st water.
Type: Depth (in Remarks:  YDROLO Wetland Hyderimary Indice	ches):  GY  drology Indicators: cators (any one indicator is	due to depth an	d speed c	condary Indicators (2 or more required)
Type:	drology Indicators: cators (any one indicator is	due to depth an	d speed c	condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (in Remarks:	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2)	s sufficient) Salt Crust (B11)	d speed c	Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Type:	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2)	s sufficient)  Salt Crust (B11)  Biotic Crust (B12)	d speed c	Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (in: Remarks:  YDROLO  Wetland Hyde Surface High Wa X Saturatio Water M	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2) on (A3)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	d speed o	condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type:	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Sec	Condary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)
Type:	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) at Deposits (B2) (Nonriverine)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) rine) Oxidized Rhizospheres along	Second Se	Condary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)
Type: Depth (in: Remarks:  YDROLO Wetland Hyder Surface X High Wa X Saturatio Water M Sedimer Drift Dep	drology Indicators: cators (any one indicator is Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) posits (B3) (Nonriverine)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) rine) Oxidized Rhizospheres along Presence of Reduced Iron (C) Recent Iron Reduction in Plo	Second Se	Condary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)
Type: Depth (in: Remarks:  YDROLO Wetland Hyd Surface X High Wa X Saturatio Water M Sedimer Drift Dep Surface Inundation	drology Indicators: Cators (any one indicator is Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) cosits (B3) (Nonriverine) Soil Cracks (B6)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) rine) Oxidized Rhizospheres along Presence of Reduced Iron (C) Recent Iron Reduction in Plo	Second Se	Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C8) Shallow Aquitard (D3)
Type:	drology Indicators: cators (any one indicator is water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) cosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Image tained Leaves (B9)	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) rine) Oxidized Rhizospheres along Presence of Reduced Iron (C Recent Iron Reduction in Plo	Second Se	Condary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C5)
Type:	drology Indicators: cators (any one indicator is water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) cosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Image tained Leaves (B9) vations:	s sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) inne) Oxidized Rhizospheres along Presence of Reduced Iron (C Recent Iron Reduction in Plo	Second Se	Condary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C8)  Shallow Aquitard (D3)

Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No

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

OHIOM present + indicated by extent of scar.

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Saturation Present? (includes capillary fringe)

Remarks:

Project/Site: Shifler Property		City/County:	Yold	County Sampling Date: 9/10/10
Applicant/Owner: Teichert Agazagiates				State: CA Sampling Point: \\\\\\\\\\\\\
			vnshin Ra	nge: Section 27+28/TION/R-1
				convex, none): Slope (%):
				Long: Datum: NAD8 3
				NWI classification: NOOR
Soil Map Unit Name:			2	
Are climatic / hydrologic conditions on the site typical for this				17
Are Vegetation, Soil, or Hydrology sig				Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology na	turally prot	olematic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	sampling	g point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	又	0.00000	Sampled n a Wetlan	2.
Upland comparison to D	P 10.			
VEGETATION		- 2.00-184-01		
SERVICE CONTRACTOR CONTRACTOR IN CONTRACTOR	Absolute	Dominant Species?		Dominance Test worksheet:
1. Quercus lobata				Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2				
3			1//	Total Number of Dominant Species Across All Strata: (B)
4				
Total Cover:	70_			Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
Sapling/Shrub Stratum  1. Sambucus piara sep. cerular.	20	/	Eac	Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3		3.774.6	1999 11	OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
Total Cover:	20_		•	FACU species x 4 =
Herb Stratum	10	6/	N/L	UPL species x 5 =
1. Epilobium byachuparpum.	10	2/*	FAC	Column Totals: (A) (B)
2 Chromas Aresgins .			100	Prevalence Index = B/A =
4		•		Hydrophytic Vegetation Indicators:
5.				✓ Dominance Test is >50%
6				Prevalence Index is ≤3.01
7				Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8Total Cover:	2.0			Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum  1				Indicators of hydric soil and wetland hydrology must
2.				be present.
Total Cover: % Bare Ground in Herb Stratum % Cover o		iet 『メ		Hydrophytic Vegetation Present? Yes Y No
Remarks:	, DIOIIC OIL			Present? Yes X No
	2			6

Tomo Booompa	ion: (Describe to the	he denth ner	ded to docum	ent the ir	dicator o	r confirm	the absence	e of indicat	ors )	
Depth	Matrix	io depui nee		Features		a commi	the absente	e of marcar	013.)	
		% Co			Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
TOTAL CONTRACTOR OF THE PARTY O	1	100		2007			clan	loan		
	13 1 -1 -1	100					Citta	COLFFE		
									190	
		0.								
						L. Commonweal		34 MI 10-4-2-4W		
							-	2		
ype: C=Concer	ntration, D=Depletion	n, RM=Redu	ced Matrix.	<sup>2</sup> Location:	PL=Pore	Lining, R	C=Root Cha	nnel, M=Mat	rix.	
ydric Soil Indic	cators: (Applicable	to all LRRs,	unless other	wise note	d.)		Indicator	s for Proble	ematic Hydric	Soils <sup>3</sup> :
_ Histosol (A1)	(	_	_ Sandy Redox	x (S5)			1 cm	Muck (A9) (	LRR C)	
_ Histic Epiped			_ Stripped Mat	rix (S6)			2 cm	Muck (A10)	(LRR B)	
_ Black Histic (A		<u>~</u>	Loamy Muck	y Mineral	(F1)		Redu	iced Vertic (I	F18)	
_ Hydrogen Sul		<u></u>	_ Loamy Gleye	ed Matrix (	(F2)		Red	Parent Mater	rial (TF2)	
	ers (A5) (LRR C)	_	<ul> <li>Depleted Ma</li> </ul>	아이네는 명 버릇지			Othe	r (Explain in	Remarks)	
_ 1 cm Muck (A			_ Redox Dark							
75. A	ow Dark Surface (Ar	11)	_ Depleted Da		15 15					
_ Thick Dark Su		-	_ Redox Depre		8)		3			
_ Sandy Mucky		_	_ Vernal Pools	(F9)					ytic vegetation	
_ Sandy Gleyed	Annual Section of the Control of the						wetian	a nyarology	must be prese	nt.
estrictive Layer	(ii preseir).									
Type:							Undeia Ca	II Dunnanto	Yes	N- Y
	):				- X	74	Hyuric So	ii Present?	res	NO
emarks:	19	,					,			
Vo h	ydric s	cit is	ndica	tas	det	reled				
				***************************************						
										required)
etland Hydrolo									ators (2 or more	
etland Hydrolo imary Indicators	s (any one indicator i	is sufficient)						Water Marks	s (B1) (Riverine	9)
etland Hydrolog mary Indicators Surface Water	s (any one indicator i er (A1)	is sufficient)	Salt Crust (	Jones Stee			- =	Water Marks Sediment De	s (B1) (Riverino eposits (B2) (Ri	e) iverine)
etland Hydrolog mary Indicators Surface Wate High Water Ta	s (any one indicator i er (A1) able (A2)	is sufficient)	Salt Crust (	Jones Stee	September 1		- =	Water Marks Sediment De	s (B1) (Riverine	e) iverine)
etland Hydrolog mary Indicators Surface Water	s (any one indicator i er (A1) able (A2)	is sufficient)		(B12)	; (B13)		_ =	Water Marks Sediment De Drift Deposit	s (B1) (Riverino eposits (B2) (Ri	e) iverine)
etland Hydrolog imary Indicators Surface Wate High Water Ta Saturation (AS	s (any one indicator i er (A1) able (A2)	is sufficient)	Biotic Crust	(B12) ertebrates			_ =	Water Marks Sediment De Drift Deposit Drainage Pa	s (B1) (Riverino eposits (B2) (Ri s (B3) (Riverin	e) iverine) ie)
etland Hydrolog imary Indicators Surface Wate High Water Ta Saturation (A3 Water Marks (	s (any one indicator i er (A1) able (A2) 3)		Biotic Crust Aquatic Inve	(B12) ertebrates Sulfide Ode	or (C1)	iving Root		Water Marks Sediment De Drift Deposit Drainage Pa	s (B1) (Riverino eposits (B2) (Ri s (B3) (Riverin atterns (B10) Water Table (C	e) iverine) ie)
etland Hydrolog imary Indicators Surface Wate High Water Ta Saturation (A3 Water Marks ( Sediment Dep	s (any one indicator i er (A1) able (A2) 3) (B1) (Nonriverine)	- - - erine) _	Biotic Crust Aquatic Inve	t (B12) ertebrates Sulfide Ode hizosphere	or (C1) es along l		s (C3)	Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season	s (B1) (Rivering eposits (B2) (Rivering ts (B3) (Rivering etterns (B10) Water Table (Courface (C7)	e) iverine) ie)
etland Hydrolog imary Indicators Surface Wate High Water Ta Saturation (A3 Water Marks ( Sediment Dep	s (any one indicator i er (A1) fable (A2) 3) (B1) (Nonriverine) posits (B2) (Nonrive s (B3) (Nonriverine)	- - - erine) _	Biotic Crust Aquatic Invo Hydrogen S Oxidized R	t (B12) ertebrates Sulfide Ode hizosphere if Reduced	or (C1) es along l d Iron (C4	ř.	s (C3)	Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Thin Muck S Crayfish Bur	s (B1) (Rivering eposits (B2) (Rivering ts (B3) (Rivering etterns (B10) Water Table (Courface (C7)	e) iverine) e)
Surface Water High Water Ta Saturation (A3 Water Marks ( Sediment Dep Drift Deposits Surface Soil C	s (any one indicator i er (A1) fable (A2) 3) (B1) (Nonriverine) posits (B2) (Nonrive s (B3) (Nonriverine)	- - - erine) _ -	Biotic Crust Aquatic Invo Hydrogen S Oxidized Rh Presence o	t (B12) ertebrates Sulfide Odd hizosphere f Reduced Reductio	or (C1) es along l d Iron (C4 on in Plowe	ř.	s (C3)	Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Thin Muck S Crayfish Bur	s (B1) (Rivering eposits (B2) (Rivering ts (B3) (Rivering tterns (B10) Water Table (Capurface (C7) trows (C8) fisible on Aerial	e) iverine) e)

Yes \_\_\_\_ No X Depth (inches): \_

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

No welland hydrology indicatas present.

Water Table Present? Saturation Present?

Remarks:

(includes capillary fringe)

Wetland Hydrology Present? Yes\_

Project/Site: Shifler Projecty City/County: Yola	o County Sampling Date: 9/10/10
Applicant/Owner: Teicher+ Agaragates	
	inge: Sention 27 + 28/TION/R-1E
Landform (hillslope, terrace, etc.): Ditto Local relief (concave,	
Subregion (LRR):	
	NWI classification: NOOR
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	
	"Normal Circumstances" present? Yes X No
SUMMARY OF FINDINGS – Attach site map showing sampling point I	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _X	
Hydric Soil Present?	
Wetland Hydrology Present? Yes X No within a Wetlan	
Remarks:	
Drainage ditch Not-feature dead-en	de into recently-tilled field.
VEGETATION	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) <u>% Cover Species? Status</u>	Number of Dominant Species
1	That Are OBL, FACW, or FAC: (A)
3.	Total Number of Dominant Species Across All Strata: (B)
4	
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum	Prevalence Index worksheet:
1	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	UPL species x 5 =
2	Column Totals: (A) (B)
3	Prevalence Index = B/A =
4	Hydrophytic Vegetation Indicators:
5	Dominance Test is >50%
6	Prevalence Index is ≤3.0¹
7	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7 Total Cover:	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum	
1	Indicators of hydric soil and wetland hydrology must
2	be present.
Total Cover:	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Present? Yes No _X_
Remarks:	
Feature is primarily invegetated but i	Phalans agratua
Feature is primarily invegetated, but ? Epilobium brachycarpum are procent	on banks,

Profile Desc	ription: (Describe	to the depth	needed to document the indicator or c	onfirm the absence of indicators.)		
Depth	Matrix		Redox Features			
(inches)	Color (moist)		Color (moist) % Type¹ L	oc² Texture Remarks		
0-6"	2.543/2	100 _		- mucky modified minera		
	W					
	<del></del>					
				THE R. LEWIS CO., LANSING, MICH. 400, LANSING, L		
		- No.				
			-			
		. — —		<del></del>		
	ncentration, D=Dep			ning, RC=Root Channel, M=Matrix.		
Hydric Soil I	ndicators: (Applic	able to all LR	Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	1 15		Sandy Redox (S5)	1 cm Muck (A9) (LRR C)		
— Histic Ep Black His	ipedon (A2)		Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)		
	n Sulfide (A4)		Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) Red Parent Material (TF2)		
	Layers (A5) (LRR	C)	Depleted Matrix (F3)	Other (Explain in Remarks)		
	ck (A9) (LRR D)	(c) (c)	Redox Dark Surface (F6)	- The state of the		
	Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)			
0.00	rk Surface (A12)		Redox Depressions (F8)	3		
	ucky Mineral (S1) eyed Matrix (S4)		Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.		
- Martin	ayer (if present):		ALTERNATION PROPERTY.	wedand flydiology flust be present.		
				I:		
Type:						
Type: Depth (incl	Company of the second s		-	Hydric Soil Present? Yes X No		
Type: Depth (incl Remarks:	Company of the second s		<u> </u>	Hydric Soil Present? Yes No		
Depth (incl	Company of the second s		- X	Hydric Soil Present? Yes X. No		
Depth (incl	Company of the second s		<del>-</del>	Hydric Soil Present? Yes X No		
Depth (incl	Company of the second s		<del>-</del>	Hydric Soil Present? Yes No		
Depth (incl Remarks:	hes):		- X	Hydric Soil Present? Yes X. No		
Depth (incl Remarks:	hes):			Hydric Soil Present? Yes X No		
Depth (incl Remarks: YDROLOG Wetland Hyd	hes): GY rology Indicators:		-	Hydric Soil Present? Yes X No		
Depth (incl Remarks: YDROLOG Wetland Hyd	hes):		nt)			
Depth (incl Remarks: YDROLOG Wetland Hyd Primary Indica	hes): GY rology Indicators:		Salt Crust (B11)	Secondary Indicators (2 or more required)		
Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface V X High Wat	hes):		Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd  Primary Indica  Surface V  X High Wat  X Saturation	rology Indicators; ators (any one indicators) vater (A1) er Table (A2)	ator is sufficie	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)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd Primary Indica Surface V  X High Wat X Saturation Water Ma	rology Indicators: ators (any one indic Vater (A1) er Table (A2) in (A3) irks (B1) (Nonriver	ator is sufficie	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)  Dry-Season Water Table (C2)		
Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface V X High Wat X Saturation Water Ma Sediment	rology Indicators: ators (any one indic Vater (A1) er Table (A2) n (A3) rks (B1) (Nonriveri Deposits (B2) (Non	ator is sufficie ine) nriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd  Primary Indica  Surface V  X High Wat  X Saturation  Water Ma  Sediment  Drift Depo	rology Indicators: ators (any one indic Vater (A1) er Table (A2) n (A3) urks (B1) (Nonriveri Deposits (B2) (Non posits (B3) (Nonriveri	ator is sufficie ine) nriverine)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Livin</li> <li>Presence of Reduced Iron (C4)</li> </ul>	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd  Primary Indica  Surface V  X High Wat  X Saturation  Water Ma  Sediment  Drift Depo	rology Indicators: ators (any one indic Vater (A1) er Table (A2) n (A3) urks (B1) (Nonriveri Deposits (B2) (Noriveri soil Cracks (B6)	ator is sufficie ine) nriverine) rine)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Livin</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed States</li> </ul>	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd Primary Indica Surface V X High Wat X Saturation Water Ma Sediment Drift Depo Surface S Inundation	rology Indicators: ators (any one indicators (any one indicators) er Table (A2) in (A3) in (A3) in (B1) (Nonriver) Deposits (B2) (Nonriver) coil Cracks (B6) in Visible on Aerial II	ator is sufficie ine) nriverine) rine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd Primary Indica Surface V X High Wat X Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta	rology Indicators: ators (any one indicators) vater (A1) er Table (A2) n (A3) urks (B1) (Nonriver) Deposits (B2) (Nonriver) soil Cracks (B6) n Visible on Aerial Indicators (B9)	ator is sufficie ine) nriverine) rine)	<ul> <li>Salt Crust (B11)</li> <li>Biotic Crust (B12)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Livin</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed States</li> </ul>	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)		
Depth (incl Remarks:  YDROLOG  Wetland Hyd Primary Indica Surface V  X High Wat X Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta	rology Indicators: ators (any one indicators (any one indicators) ators (A1) er Table (A2) in (A3) in (A3) in (B1) (Nonriver) Deposits (B2) (Nonriver) iosits (B3) (Nonriver) iosits (B	ator is sufficie ine) nriverine) rine) magery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)		
Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface V X High Wat X Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta Field Observa	rology Indicators: ators (any one indic Vater (A1) er Table (A2) n (A3) urks (B1) (Nonriveri Deposits (B2) (Non iosits (B3) (Nonriveri ioil Cracks (B6) n Visible on Aerial II ained Leaves (B9) ations: r Present?	ator is sufficie	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks) OHUM	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)		
Primary Indica Surface V X High Wat X Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta	rology Indicators: ators (any one indicators (any one indicators) ators (any one indicators) ators (any one indicators) ators (any one indicators) are Table (A2) are (A3) are (B4) (Nonrivers) as (B4) (Nonri	ine) nriverine) magery (B7) es No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks) OHUM	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)		

OHWM Present + indicated by change in veg.

Remarks:

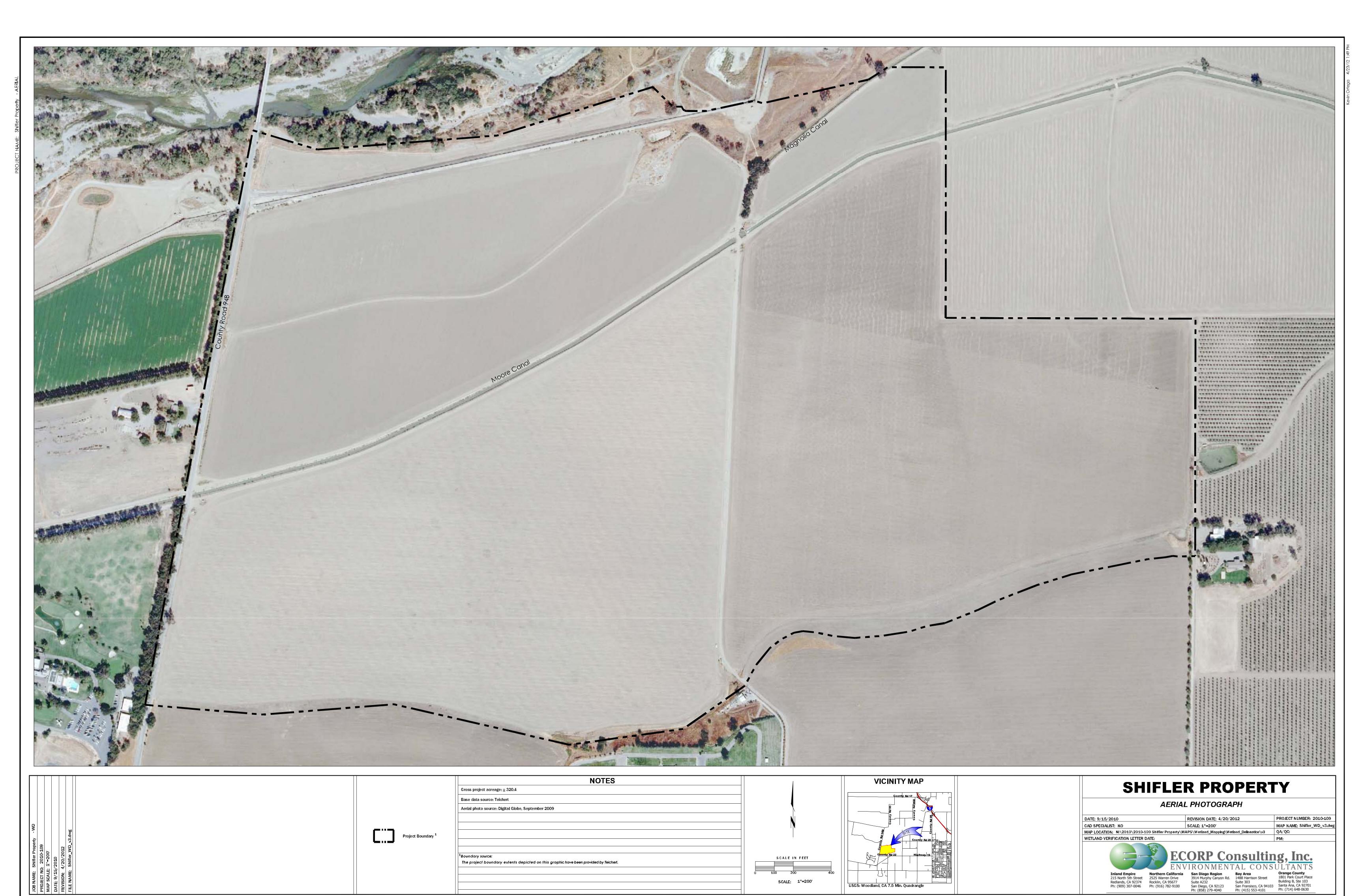
Project/Site: Shifler Projecty City/County: Yola	Sampling Date: 9/10/10
Applicant/Owner: Teichert Aggregates	State: A Sampling Point: 13N
Investigator(s): Daria Snider Section, Township, Ra	nne: Section 27+28/TIDA)/815
Landform (hillslope, terrace, etc.): Terrace Local relief (concave,	convex none). Slove (%).
Subregion (LRR):Lat:	
	NWI classification: NOOE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	
	"Normal Circumstances" present? Yes X No
	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point le	
Hydrophytic Vegetation Present? Yes No_X	
Hydric Soil Present? Yes No X	10 (March 1997)
Wetland Hydrology Present? Yes No Within a Wetlan	nd? YesNoX
Remarks:	2
Upland comparison to DP 12.	
VEGETATION	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) <u>% Cover Species? 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)
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	1 91 1 <del>717 - 171 1 181</del>
1	Prevalence Index worksheet:
2	Total % Cover of: Multiply by:
4	OBL species x 1 = FACW species x 2 =
5.	FAC species x 3 =
Total Cover:	FACU species x 4 =
Herh Stratum	UPL species x 5 =
1. Malva neglecta 10 / N/L	Column Totals: (A) (B)
	Prevalence Index = B/A =
3.	Hydrophytic Vegetation Indicators:
5	Dominance Test is >50%
6	Prevalence Index is ≤3.01
7	Morphological Adaptations¹ (Provide supporting
8	data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation (Explain)
Total Cover:	Problematic Hydrophytic Vegetation (Explain)
1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2.	be present.
Total Cover:	Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic Crust (2/	Vegetation Present? Yes No 🄀
Remarks:	Present? Yes NoX
Tromac no.	
	390

_	_	**	
•	1	ш	

SOIL	Sampling Point: 13N			
Profile Description: (Describe to the depth needed to document the inc	licator or confirm the absence of indicators.)			
Depth Matrix Redox Features	<del>- 1 · 2</del>			
(inches) Color (moist) % Color (moist) %	, , , , , , , , , , , , , , , , , , , ,			
0-12" 25Y 3/2 100	sandy day onm			
<del></del>				
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location:	PL=Pore Lining, RC=Root Channel, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted				
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 (				
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F	2) 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				
Thick Dark Surface (A12) Redox Depressions (F8 Sandy Mucky Mineral (S1) Vernal Pools (F9)	A			
Sandy Gleyed Matrix (S4)	Indicators of hydrophytic vegetation and wetland hydrology must be present.			
Restrictive Layer (if present):	worlding hydrology must be prosent.			
Type:				
Depth (inches):	Hydric Soil Present? Yes No _ Y			
Remarks:	Trydite Con Present? Tes No/			
No hydric soil indicators deter	ted.			
IYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)			
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)			
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) (Riverine)			
Saturation (A3) Aquatic Invertebrates (	B13) Drainage Patterns (B10)			
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)				
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7)				
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)				
Surface Soil Cracks (B6) Recent Iron Reduction	—			
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rema	1981 Anna Carlos A			
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No Depth (inches):	12			
Water Table Present? Yes No Depth (inches):	<u>12                                    </u>			
1987 (1987) 1987 (	Wetland Hydrology Present? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
,				
Remarks:				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
No wetland hydrology indie	entres detected.			

## **ATTACHMENT B**

Aerial Photograph



## **ATTACHMENT C**

Plant Species Observed On-Site

## Shifler Property Wetland Delineation Plant Species Observed On-Site

Scientific Name	Common Name	Indicator Status
Ailanthus altissima	Tree-of-heaven	FACU
Amaranthus albus	Pigweed amaranth	FACU
Amaranthus blitoides	Prostrate amaranth	FACW
Asclepias fascicularis	Narrow-leaf milkweed	FAC
Avena fatua	Wild oat	N/L
Bromus hordeaceus	Soft brome	FACU-
Bromus madritensis ssp. rubens	Red brome	NI
Chenopodium album	Lamb's quarters	FAC
Convolvulus arvensis	Morning glory	N/L
Conyza canadensis	Canada horseweed	FAC
Cynodon dactylon	Bermuda grass	FAC
Cyperus esculentus	Yellow nutgrass	FACW
Datura wrightii	Jimson weed	N/L
Echinochloa colona	Jungle rice	FACW
Echinodorus berteroi	Burhead	OBL
Epilobium brachycarpum	Panicled willow-herb	N/L
Epilobium ciliatum	Hairy willow-herb	FACW
Eremocarpus setigerus	Turkey mullein	N/L
Helianthus annuus	Common sunflower	FAC-
Hirschfeldia incana	Mustard	N/L
Juglans hindsii	Black walnut	FAC
Juglans regia	English walnut	N/L
Lactuca serriola	Prickly lettuce	FAC
Lepidium latifolium	Broad-leaf pepper grass	FACW
Leptochloa fascicularis	Bearded sprangletop	OBL
Lolium multiflorum	Italian ryegrass	FAC*
Lycopersicon esculentum	Cultivated tomato	N/L
Marrubium vulgare	Common horehound	FAC
Nicotiana glauca	Tree tobacco	FAC
Paspalum dilatatum	Dallis grass	FAC
Phalaris aquatica	Harding grass	FAC+
Proboscidea lutea	Devil's claw	N/L
Polygonum species	Smartweed	
Portulaca oleraceus	Common purslane	FAC
Quercus lobata	Valley oak	FAC*
Raphanus sativus	Purple wild radish	N/L
Rumex crispus	Curly dock	FACW-
Silybum marianum	Milk thistle	N/L
Sorghum halepense	Johnson grass	FACU

# Shifler Property Wetland Delineation Plant Species Observed On-Site

Scientific Name	Common Name	Indicator Status
Toxicodendron diversilobum	Poison oak	N/L
Tribulus terrestris	Puncture vine	N/L
Typha angustifolia	Narrow-leaf cattail	OBL
Typha species	Cattail	OBL

#### **Indicator Status Codes**

**OBL** = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.

FACW = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.

FAC = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

FACU = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).

UPL = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.

N/L = Not Listed.

NI = No indicator was recorded for those species for which insufficient information was available to determine a status.

-- = May or may not occur in wetlands depending upon species.

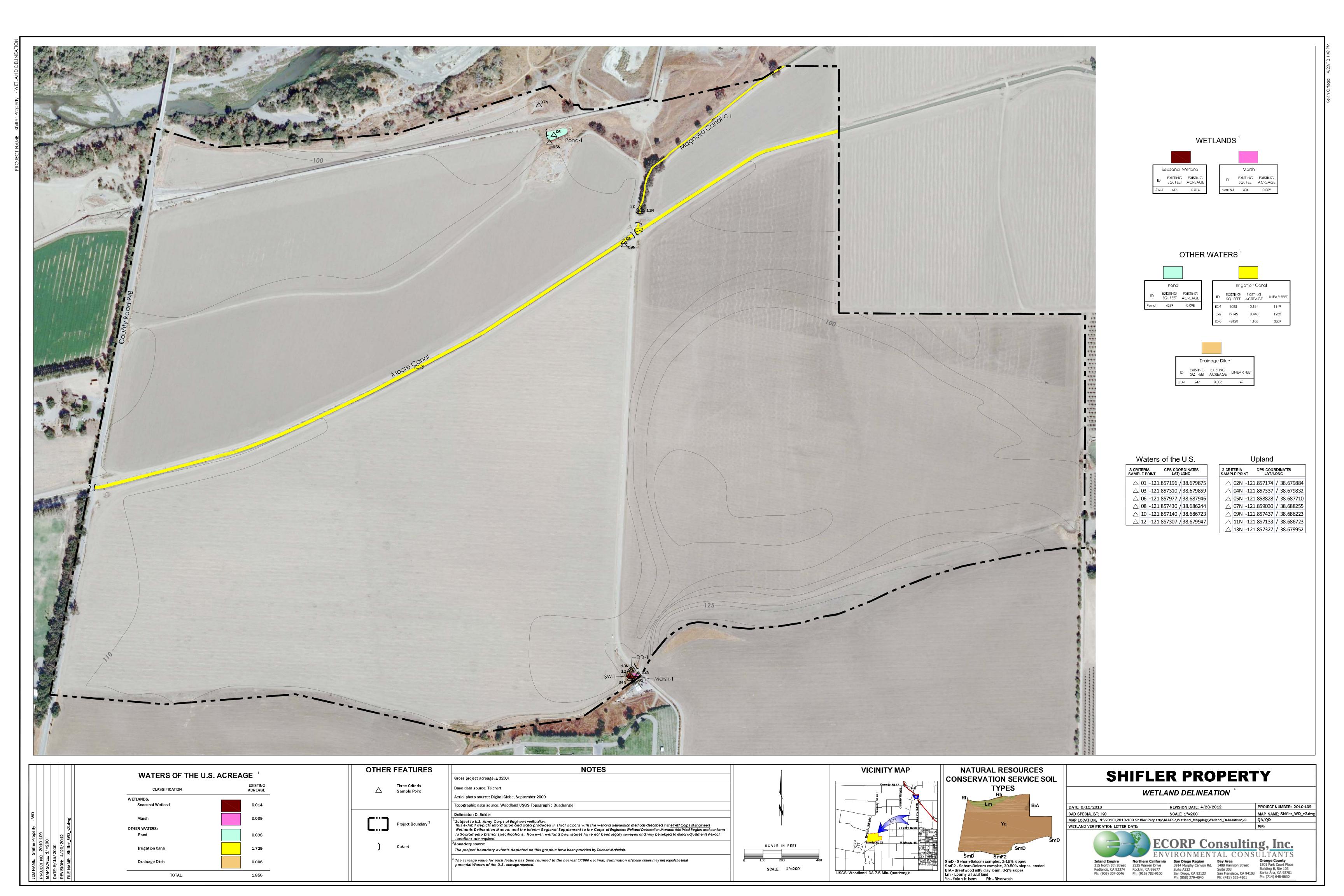
A positive (+) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.

A negative (-) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.

An asterisk (\*) indicates a tentative assignment based upon limited information or conflicting review.

## **ATTACHMENT D**

Wetland Delineation



## **ATTACHMENT E**

Wetland Delineation Shape File (to be include with USACE submittal only)

## **ATTACHMENT F**

USACE-Verified Wetland Map and Verification Letter (to be included in ECORP Consulting master copy only)