Wetland Delineation

For

# **Shifler Property**

Yolo County, California

18 May 2012

Prepared For: Teichert Aggregates

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## Wetland Delineation

# **Shifler Property**

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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

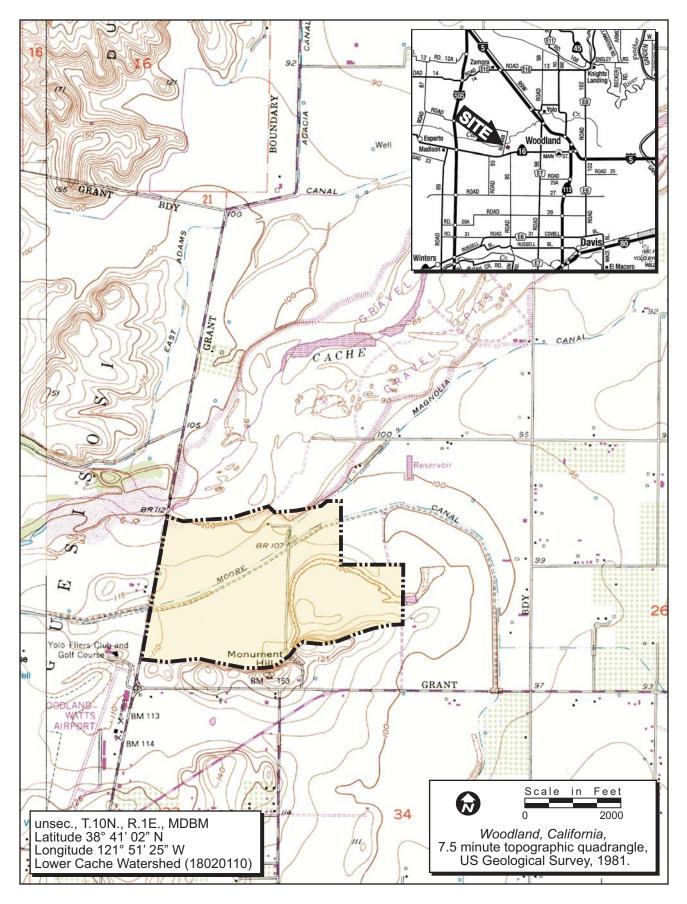


Figure 1. Project Site and Vicinity



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).

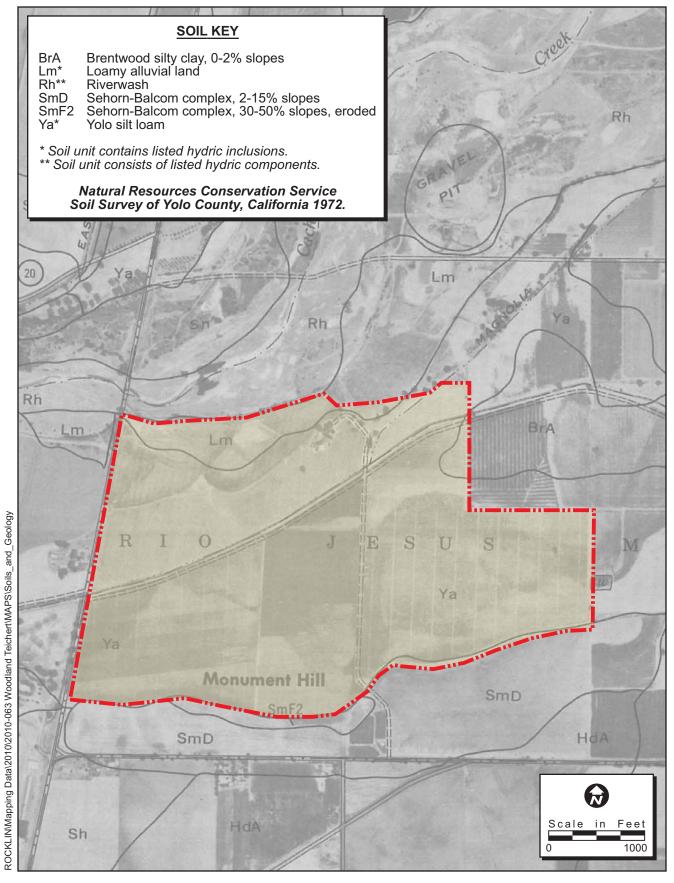
No National Wetlands Inventory features have been mapped within the project area.

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







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 Wetland-Associated Plant 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	NI	Dess not assur in watlands 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).

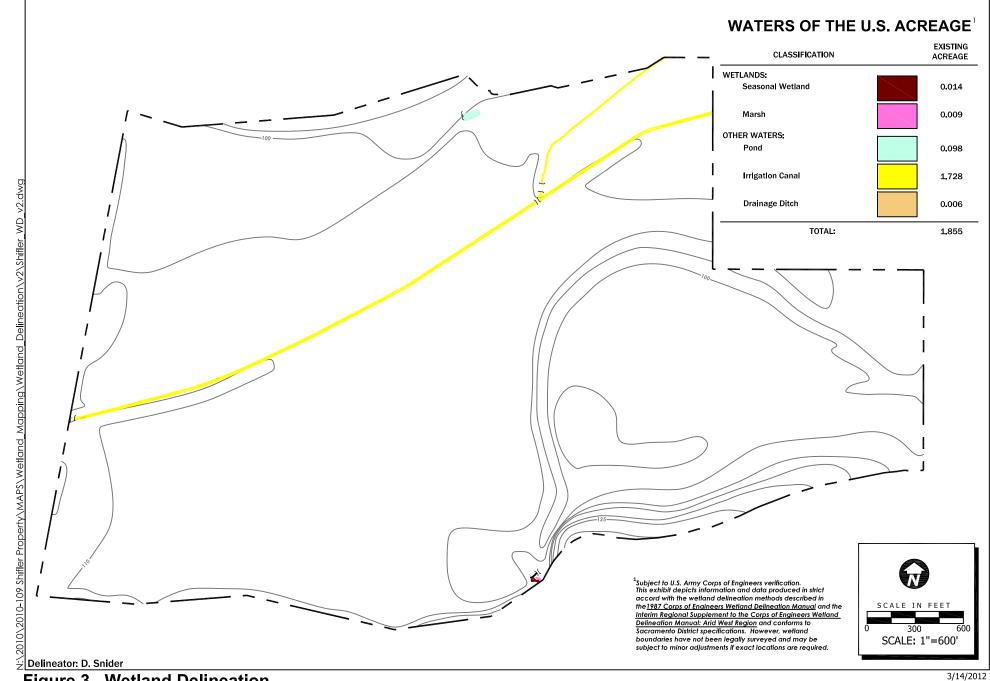
### Hydrology

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>	<u>Acreage<sup>1</sup></u>
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	are subject to modification following the Corps' verification process.







### 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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Wetland Determination Data Forms - Arid West Region

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: _Shi	fler Prop	erty	City/County: _	Yolo	County	Sampling Dat	te: 9/10/10
Applicant/Owner:		laarentes			State: CA	Sampling Poir	nt:
Investigator(s): Da	ria Sni	der	Section, Towr	nship, Range	Section 2	7+28	/TIDN/PIE
Landform (hillslope, te	rrace, etc.):H	illslope	Local relief (c	oncave, conv	vex, none): Non	e	Slope (%):
Subregion (LRR):			Lat:	L¢	ong:	D	Datum: NADR3
Soil Map Unit Name: _	Yolo si	It loam			NWI classifica	tion: <u> </u>	Jone
Are climatic / hydrolog	ic conditions on th	e site typical for this	time of year? Yes $\underline{X}$	No	(If no, explain in Re	marks.)	
Are Vegetation	, Soil, or l	Hydrology si	gnificantly disturbed?	Are "Nor	mal Circumstances" pr	esent? Yes	XNo
Are Vegetation	, Soil, or I	Hydrology na	aturally problematic?	(If neede	d, explain any answers	in Remarks.	)
			-				

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes_✔ No Yes_४ No Yes_४ No	Is the Sampled Area within a Wetland?	Yes 🗡	No
Remarks:	19		177	***
Marsh				

#### VEGETATION

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Use scientific names.) 1	1 Contractor es Porrel	Species?	1	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
23				Total Number of Dominant Species Across All Strata:(B)
4 Total Cover Sapling/Shrub Stratum				Percent of Dominant Species That Are OBL, FACW, or FAC:(D'D (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 =
Herb Stratum			1.1	UPL species x 5 =
1. Typha unastifolia	_100_		_Ob1_	Column Totals: (A) (B)
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				<u>Y</u> Dominance Test is >50%
6				Prevalence Index is ≤3.0 <sup>1</sup>
7				Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8 Total Cover.	10D			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum           1.           2.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
Total Cover: % Bare Ground in Herb Stratum % Cover	·		,	Hydrophytic Vegetation Present? Yes <u>V</u> No
Remarks:				
Kenduks.				
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	120			

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Sampling Point:

Profile Description: (Describe to the Depth Matrix		Features			
(inches) Color (moist) %	Color (moist)	% Typ		Texture	Remarks
0-8" 101R 4/2 98	7.5YR-16	2º10 C	P.C	day	loan
8-12" 2.54 1/2 10					modifiedmineral
Type: C=Concentration, D=Depletion, F			Pore Lining, F		inel, M=Matrix.
ydric Soil Indicators: (Applicable to	all LRRs, unless otherv	vise noted.)		Indicators	s for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Sandy Redox Stripped Mat X Loamy Muck	rix (S6) y Mineral (F1)		2 cm Redu	Muck (A9) (LRR C) Muck (A10) (LRR B) ced Vertic (F18)
<ul> <li>Hydrogen Sulfide (A4)</li> <li>Stratified Layers (A5) (LRR C)</li> <li>1 cm Muck (A9) (LRR D)</li> </ul>	X Depleted Mai	Surface (F6)			Parent Material (TF2) (Explain in Remarks)
<ul> <li>Depleted Below Dark Surface (A11)</li> <li>Thick Dark Surface (A12)</li> <li>Sandy Mucky Mineral (S1)</li> </ul>	Depleted Dar Redox Depre Vernal Pools			<sup>3</sup> Indicators	of hydrophytic vegetation and
_ Sandy Gleyed Matrix (S4)				wetland	d hydrology must be present.
antriative Lover /if propently					
estrictive Layer (il present):				1	
Туре:			Ti and		v
testrictive Layer (if present): Type: Depth (inches): temarks:			E.	Hydric Soi	I Present? Yes X No
Type: Depth (inches): emarks:		ē.	2 	Hydric Soi	l Present? Yes <u>X</u> No
Type: Depth (inches): emarks: /DROLOGY			Т		I Present? Yes X No
Type: Depth (inches): emarks: /DROLOGY /etland Hydrology Indicators:		6		Śeco	
Type: Depth (inches): emarks: DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s _ Surface Water (A1)		311)		<u>Seco</u>	ndary Indicators (2 or more required)
Type: Depth (inches): emarks: /DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2)	ufficient)	and a state of the second s		<u>Seco</u>	ndary Indicators (2 or more required) Vater Marks (B1) ( <b>Riverin</b> e)
Type: Depth (inches): emarks: /DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (f Biotic Crust Aquatic Inve	(B12) ertebrates (B13	· ·	<u>Seco</u> V S C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (inches): emarks: /DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	ufficient) Salt Crust (f Biotic Crust Aquatic Inve Hydrogen S	(B12) ertebrates (B13 ulfide Odor (C	1)	<u>Seco</u> V S C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Depth (inches): emarks: <b>'DROLOGY</b> etiand Hydrology Indicators: rimary Indicators (any one indicator is s 	ufficient) Salt Crust (f Biotic Crust Aquatic Inve Hydrogen S e)X Oxidized Rh	(B12) ertebrates (B13 ulfide Odor (C <sup>4</sup> izospheres alc	1) ong Living Roc	<u>Seco</u> V S C C C C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
Type: Depth (inches): emarks: <b>DROLOGY</b> etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S e)X Oxidized Rh Presence of	(B12) ertebrates (B13 ulfide Odor (C izospheres alc Reduced Iron	1) ong Living Roc (C4)	<u>Seco</u> V S C C C C C C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
Type: Depth (inches): emarks: TDROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S e) Oxidized Rh Presence of Recent Iron	(B12) ertebrates (B13 ulfide Odor (C <sup>4</sup> izospheres alc	1) ong Living Roo (C4) Nowed Soils ((	<u>Seco</u> V S C C C C C C S C S _S	ndary Indicators (2 or more required) Vater Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Orift Deposits (B3) ( <b>Riverine</b> ) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Type: Depth (inches): emarks: DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S e) Oxidized Rh Presence of Recent Iron	(B12) ertebrates (B13 ulfide Odor (C <sup>-</sup> izospheres alo Reduced Iron Reduction in F	1) ong Living Roo (C4) Nowed Soils ((	<u>Seco</u> V S C C C C S S S S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
Type: Depth (inches): emarks: DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S e) Oxidized Rh Presence of Recent Iron	(B12) ertebrates (B13 ulfide Odor (C <sup>-</sup> izospheres alo Reduced Iron Reduction in F	1) ong Living Roo (C4) Nowed Soils ((	<u>Seco</u> V S C C C C S S S S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Type: Depth (inches): emarks: /DROLOGY /etland Hydrology Indicators: imary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S Hydrogen S be) Oxidized Rh Presence of Recent Iron	(B12) ertebrates (B13 ulfide Odor (C izospheres alo Reduced Iron Reduction in F ain in Remarks	1) ong Living Roo (C4) Nowed Soils ((	<u>Seco</u> V S C C C C S S S S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Type: Depth (inches): emarks: //DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S Hydrogen S (B7) Oxidized Rh Recent Iron (B7) Other (Expla	(B12) ertebrates (B13 ulfide Odor (C izospheres alo Reduced Iron Reduction in F ain in Remarks	1) ong Living Roo (C4) Nowed Soils ((	<u>Seco</u> V S C C C C S S S S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Type: Depth (inches): remarks: //DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is s 	ufficient) Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S e) Oxidized Rh Presence of Recent Iron (B7) Other (Explain No Depth (inch	(B12) ertebrates (B13 ulfide Odor (C' izospheres alc Reduced Iron Reduction in F ain in Remarks mes): mes): mes):	1) ong Living Roc (C4) Nowed Soils (C )  Weth	<u>Seco</u> V S C C C C S S S S S S	ndary Indicators (2 or more required) Vater Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Orift Deposits (B3) ( <b>Riverine</b> ) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)

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

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Shifler Property	City/County: Yolo County Sampling Date: 9/10/10
Applicant/Owner: Teichert Aggragates	State: CA Sampling Point: 2 N
Investigator(s): Daria Snider	Section, Township, Range: Section 27+28/TION/R-IE
Landform (hillslope, terrace, etc.): Hillslope	_ Local relief (concave, convex, none): None Slope (%):
Subregion (LRR): Lat:	Long: Datum: NAD83
Soil Map Unit Name: Yolo silt lorm	NWI classification: NOOCE
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes No X Yes No X	Is the Sampled Area within a Wetland?	YesNo
Remarks: Upland	comparison	to DPI.	

VEGETATION

	Absolute	Dominant	Indicator	Dominance Test workshee	et:	
Tree Stratum (Use scientific names.) 1		Species?	and the second	Number of Dominant Specie That Are OBL, FACW, or FA	ac: 1	(A)
2						(A)
3				Total Number of Dominant Species Across All Strata:	1	(B)
4			-	Percent of Dominant Specie	c .	
Sapling/Shrub Stratum				That Are OBL, FACW, or FA	AC: 100	) (A/B)
1				Prevalence Index workshe	et:	
2				Total % Cover of:	Multiply b	y:
3				OBL species	_ x 1 =	
4				FACW species		
5				FAC species	S 22 - 530	
Total Cover:				FACU species		
Herb Stratum		1		UPL species		
1. Cympdon dactylon	A 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		the second states of the second states and t	Column Totals:		
2. Hirschfeldia intana			N/L		_ ( )	
3. Branus diandrus	tr		NIL	Prevalence Index = B/	/A =	
4. Cardous pyrnocephalus	-1-5-		N/L-	Hydrophytic Vegetation In		
5				Dominance Test is >509	%	
6				Prevalence Index is ≤3.0	D <sup>1</sup>	
7				Morphological Adaptatio	ons <sup>1</sup> (Provide su	pporting
8				data in Remarks or o		
Total Cover:	1000			Problematic Hydrophytic	: Vegetation <sup>1</sup> (E	xplain)
Woody Vine Stratum				<sup>1</sup> Indicators of hydric soil and	wational budrala	au pou of
1				be present.	wettand hydroid	gy musi
2						
Total Cover:				Hydrophytic Vegetation		
	1200172 (0224 72.57)	unt (7	-	Present? Yes	No	
% Bare Ground in Herb Stratum / Cover	of Biotic Cr	usi (/		1050m	NO	(i

SOIL

Depth	Matrix		Red	ox Features			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture Remarks
0-7"	104R3/2						gravely day loan
					·		
	ncentration, D=Depl ndicators: (Applica					Lining, R	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol		Die to an	Sandy Red		.,		
	ipedon (A2)		Stripped M	14 59			1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Black His	and the second of a constant of			ky Mineral (F	=1)		Reduced Vertic (F18)
	n Sulfide (A4)			yed Matrix (F			Red Parent Material (TF2)
—	Layers (A5) (LRR C	3	Depleted N		2)		
		.)			x		Other (Explain in Remarks)
	ck (A9) (LRR D)			K Surface (F6	- C		
	Below Dark Surface	e (A11)	2000 - 200 -	ark Surface (			
	rk Surface (A12)		1 County for any	ressions (F8)	)		
	ucky Mineral (S1)		Vernal Poo	ls (F9)			<sup>3</sup> Indicators of hydrophytic vegetation and
	leyed Matrix (S4)						wetland hydrology must be present.
Restrictive L	ayer (if present):						
Type:							
Depth (inc	hes):				100		Hydric Soil Present? Yes NoX_
Remarks:	0						
			9 <b>7</b> - 21				detected.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>ving Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>d Soils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:         Surface Water Present?       Yes No _X_ Depth (inches):?"	
Water Table Present? Yes No X Depth (inches): 7	
Saturation Present? Yes No X Depth (inches): 7	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ections), if available:
Remarks:	
No welland hydrology indicators	detected.

### WETLAND DETERMINATION DATA FORM – Arid West Region

Project/site: Shifler Property	City/County: Yold County Sampling Date: 9/10/10
Applicant/Owner: Teichert Aggregates	State: CA Sampling Point: 3
Investigator(s): Daria Snider	Section, Township, Range: Section 27+28/TIDN/PIE
Landform (hillslope, terrace, etc.): <u>Terrace</u>	_ Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat:	Long: Datum: NADR3
Soil Map Unit Name: Yolo Silt Loam	NWI classification: NOOCE
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects, important features, etc.

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

#### 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)
2				(v)
				Total Number of Dominant
3			<u>.                                    </u>	Species Across All Strata: (B)
4				Derevel of Dereview 10 miles
Total Cover:				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum				(AVB)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
				OBL species         x 1 =
3				FACW species x 2 =
4				FAC species x 3 =
5				Construction of the second
Total Cover: Herb Stratum				FACU species x 4 =
	000	1	Γ. *	UPL species x 5 =
1. Lolium multiplan				Column Totals: (A) (B)
2. Phalaris aquatica			Fact	
3. Rumex rristlis	5		Tacw-	<ul> <li>Prevalence Index = B/A =</li> </ul>
4. Lactura serijola	tr		Fac	Hydrophytic Vegetation Indicators:
5				⊻ Dominance Test is >50%
6				Prevalence Index is ≤3.0 <sup>1</sup>
7				Morphological Adaptations <sup>1</sup> (Provide supporting
				data in Remarks or on a separate sheet)
8	1.0.0			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Total Cover:	112			
Woody Vine Stratum				
1				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2				
Total Cover:				Hydrophytic
N. P. N. H. LOL M.			~	Vegetation
% Bare Ground in Herb Stratum % Cover	of Biotic Cri	ustQ	2	Present? Yes X No
Remarks:				
oll it light at the	i i			
Old cattail stalks pro	Sevit			
1				$\mathfrak{D}$
	55			

SOIL

Profile Description: (Describe to the depth needed to document the	indicator or	confirm t	he absend	ce of indicators.)
Depth Matrix Redox Feature		1.002	Touture	Description
(inches) Color (moist) % Color (moist) %		Loc <sup>2</sup>		Remarks
0-12" 2.5Y4/2 98 10YR 4/6 2		KC	Cay	loam
			0	-
	-6. <del>4.</del> 0			
		<u> </u>		-0
			- 22	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location	n' Pl =Pore l	ining RC:	=Root Cha	– – – – – – – – – – – – – – – – – – –
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise not		Linnig, ite		rs for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Sandy Redox (S5)	5			Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)			00000 UR 1111200	Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Minera				uced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix	k (F2)			Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)			Othe	er (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface				
Depleted Below Dark Surface (A11) Depleted Dark Surface	Chair and a start of the start of the			
Thick Dark Surface (A12) Redox Depressions (	(F8)		31	
Sandy Mucky Mineral (S1) Vernal Pools (F9)				rs of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):			weuar	nd hydrology must be present.
Type:				
	<i>\$</i> 2		Undela Ca	oil Present? Yes X No
Depth (inches): Remarks:		50	Hydric Sc	bil Present? Yes X No
				an dans Indiantese (2 an energy and in d)
Wetland Hydrology Indicators:				ondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)				Water Marks (B1) (Riverine)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)				Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)				Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> )
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)				Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1)			Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv	ing Roots	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4)	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed emarks)	12	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks)	I Soils (C6	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Liv ed Iron (C4) ion in Plowed emarks)	I Soils (C6	(C3)	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)	dor (C1) eres along Lived Iron (C4) ion in Plowed emarks) $\frac{12^4}{12^8}$	t Soils (C6	(C3) (C3) ) d Hydrolo	Water Marks (B1) ( <b>Riverine</b> ) Sediment Deposits (B2) ( <b>Riverine</b> ) Drift Deposits (B3) ( <b>Riverine</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/site: Shifler Property	City/County: City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:City/County:	County Sampling	g Date: 9/10/10
Applicant/Owner: Teichert Aggregates		State: CA Sampling	Point: 4N
Investigator(s): Daria Snider	Section, Township, Range:	Section 27+:	28/TION/EIE
Landform (hillslope, terrace, etc.): <u>Terrace</u>	Local relief (concave, conve	x, none): <u>Name</u>	Slope (%):
Subregion (LRR): Lat	: Lon	g:	Datum: NAD83
Soil Map Unit Name: Yolo silt loam		NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Norm	al Circumstances" present?	Yes <u> </u>
Are Vegetation, Soil, or Hydrology natural	ly problematic? (If needed,	explain any answers in Rema	arks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locati	ons, transects, impor	tant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes∕	No X No X No	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks: Upland	d com	parisa	to DP3.	and the second sec	

#### VEGETATION

NO WAY - SHOLD MATCHING - VALUED THE HEIR STREET STREET - HEAR STREET STREET	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				
3				Total Number of Dominant Species Across All Strata: ((B)
4				Percent of Dominant Species
Total Cover: 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 =
5				FAC species x 3 =
Total Cover:				FACU species x 4 =
Herb Stratum				UPL species x 5 =
1. Cardous Ticnorphalus	50	~	NIL	Column Totals: (A) (B)
2. Latium moltistarium	10		Fac-	
3. Promos diandras	10		NIL	Prevalence index = B/A =
4		an a		Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6				Prevalence Index is ≤3.0 <sup>1</sup>
				Morphological Adaptations <sup>1</sup> (Provide supporting
7			<u> </u>	data in Remarks or on a separate sheet)
8 Total Cover:	70			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum	-7()			
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present.
Z				Hydrophytic
Total Cover:				Vegetation
% Bare Ground in Herb Stratum 30 % Cover	of Biotic Cr	ust	6	Present? Yes No X
Remarks:				
				5

SOIL

SOIL					Long of the Long		Sampling Point	
Profile Descript	ion: (Describe to	the depth	needed to docu	ment the indicator	or confirm t	the absence of i	ndicators.)	
Depth	Matrix		Red	ox Features				
	Color (moist)	<u>%</u>	Color (moist)	%Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks	
0-12"	2.54 1/2	100				clayloo	m	
						$\mathcal{O}$		
								Station -
	ntration D-Dapla	tion RM-D	aduaad Matrix	<sup>2</sup> Location: PL=Por		-Poot Channel I	4-Motrix	
	entration, D=Deple cators: (Applical				e Lining, RC		Problematic Hydric	Soils <sup>3</sup> :
Histosol (A1)			Sandy Red				(A9) (LRR C)	Jone I
Histic Epiped			Stripped M				(A10) (LRR B)	
Black Histic	(A3)		and the second se	cky Mineral (F1)		Reduced V		55
_ Hydrogen Su	ulfide (A4)		Loamy Gle	yed Matrix (F2)		Red Paren	Material (TF2)	
프로 아님 아파가 그 아이는 아파는 것을 얻을	yers (A5) (LRR C)		Depleted M			Other (Exp	ain in Remarks)	
_ 1 cm Muck ()				k Surface (F6)				
· · · · · · · · · · · · · · · · · · ·	low Dark Surface	(A11)		ark Surface (F7)				
_ Thick Dark S	y Mineral (S1)		Redox Dep Vernal Poo	ressions (F8)		<sup>3</sup> Indianters of h	(droph) tie ve getalien	
	d Matrix (S4)			NS (F3)			drophytic vegetation ology must be prese	
estrictive Laye					T	wedding nyd	ology must be prese	n
Type:	. (							
Depth (inches)	).	Contraction of the	-	*		Hydric Soil Pres	sent? Yes	No X
emarks:	)		-	<i>k</i>		Hydric Gon Fre:		. NO
emarks.								
No h	ydric	soil	indicat	as deta	4cd.			
YDROLOGY	0		00 <del></del>					
/etland Hydrold	any Indicators:					Secondan	Indicators (2 or more	a required)
	s (any one indicate	or ie cufficie	nt)				Marks (B1) (Riverin	
Surface Wate		a is sumple	ieren sin sin sin sin sin sin sin sin sin si	(811)		and the second se		
_ Surface Wate _ High Water T			Salt Crust				ent Deposits (B2) (R eposits (B3) (Riverir	
Saturation (A			and the second sec	vertebrates (B13)			ige Patterns (B10)	le)
	(B1) (Nonriverin	a)		Sulfide Odor (C1)			eason Water Table (	20
- collection of the second second	posits (B2) (Nonr			Rhizospheres along	living Poste		luck Surface (C7)	-2)
COLORA POR PORTO DO MARTO DE	(B3) (Nonriverin		CONTRACTOR OF THE SECOND	of Reduced Iron (C4			sh Burrows (C8)	
Surface Soil		,		on Reduction in Plow			tion Visible on Aerial	I Imagen (Of
- Junace Soll (	Ciacks (DD)		Recent Irc	A Reduction in Plow	en goue (ce	J _ Satura	uon visible on Aerial	i inagery (CS

X Surface Soil Cracks (B6)

Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		<u>.</u>	Other (Explain in F	(emarks)	Shallow Aquitard (D3)		
	(69)					FAC-Neutral Test (D5)	
Field Observations:							
Surface Water Present?	Yes	No	X	Depth (inches):	12"	_	
Water Table Present?	Yes	No	×	Depth (inches):	12"		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	12''	_ Wetland Hydrology Present? Yes X	No
Describe Recorded Data (st	tream gauge	e, monito	oring v	vell, aerial photos, p	previous insp	pections), if available:	
Remarks:							

### WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Shifler Property City/County:	
Applicant/Owner: Teichert Aggregates	State: <u> </u>
Investigator(s): Daria Snider Section, Town	ship, Range: Section 27+28/TION/RIE
Landform (hillslope, terrace, etc.): Berm Local relief (co	oncave, convex, none): <u>None</u> Slope (%):
Subregion (LRR): Lat:	Long: Datum: NADR3
Soil Map Unit Name: Yolo silt loam	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes $X$ No
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling	Control and any Equilibrium of the polytical solution of the polytical second polytic solution of the second se
Somward OF Findings - Attach site map showing sampling p	sonic locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No Is the S	ampled Area
Hydric Soil Present? Yes No X	a Wetland? Yes No
Wetland Hydrology Present? Yes No X	
Upland comparison to DP 6.	
VEGETATION	A contraction of the second
Absolute Dominant Ind	
Tree Stratum (Use scientific names.) <u>% Cover</u> Species? S	Inumber of Dominant Species
1 2	
3	LOGI NUMPER OF LIOMINANT
4.	
Total Cover:	Percent of Dominant Species That Are OBL, FACW, or FAC:(CO(A/B)
Sapling/Shrub Stratum	
1	
2	Total % Cover of: Multiply by:
3	OBL species x 1 =
4	
5 Total Cover:	FAC species x 3 = FACU species x 4 =
Herb Stratum	UPL species x 5 =

5			FAC species	x 3 =	
	ver:		FACU species	x 4 =	-
Herb Stratum	~ /		UPL species	x 5 =	
1. Phalaris aquatica	<u>- 80 V</u>	Fec	Column Totals:		
2. Lepidium latifalium	20 V	FACIO			(=/
3. Hirachseldia infana	45	NIL	Prevalence Index	( = B/A =	
4. Carduce reinnraphalus	4-	Ne	Hydrophytic Vegetati	on Indicators:	
5.			🖄 Dominance Test is	s >50%	
6			Prevalence Index i	is ≤3.0 <sup>1</sup>	
78.			Morphological Ada data in Remark	aptations <sup>1</sup> (Provide su is or on a separate sh	
	ver: <u>\00</u>		Problematic Hydro	ophytic Vegetation <sup>1</sup> (E	Explain)
12.			<sup>1</sup> Indicators of hydric so be present.	il and wetland hydrol	ogy must
$\sim$	ver: ver of Biotic Crusti	x	Hydrophytic Vegetation Present? Ye	es_X_ No	
Remarks:			Letter and the second		
				F1	

.

SOIL

Sampling Point: 50

Profile Description: (Describe to the dept	n needed to document the indicator o	r confirm the absence of indicators.)
Depth <u>Matrix</u>	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	
<u>0-12" 2.543/2 100</u>		silt loam
		Liping PC-Post Channel M-Metrix
<sup>1</sup> Type: C=Concentration, D=Depletion, RM= Hydric Soll Indicators: (Applicable to all L		Lining, RC=Root Channel, M=Matrix. 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)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	3
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		wetland hydrology must be present.
Type:		
	×	Hydric Soil Present? Yes No _ $\chi$
Depth (inches):		
0	indicators dete	cled,
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suffici		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 L	
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4) Recent Iron Reduction in Plower	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)		
Water-Stained Leaves (B9)		Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observations:		
	X Depth (inches): 17 "	1 1
	o X Depth (inches): $12''$	-
Water Table Present? Yes No	o $\underline{\times}$ Depth (inches): <u>12</u> "	-
Water Table Present?     Yes No       Saturation Present?     Yes No		- Wetland Hydrology Present? Yes No
Water Table Present? Yes No	o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$ o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$	
Water Table Present?     Yes No       Saturation Present?     Yes No       (includes capillary fringe)     No	o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$ o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$	
Water Table Present?     Yes No       Saturation Present?     Yes No       (includes capillary fringe)     No	o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$ o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$	
Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, mon	o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$ o $\underline{\times}$ Depth (inches): $\underline{12^{\circ}}$	
Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, mon Remarks:	o $\times$ Depth (inches): $12^{\circ}$ o $\times$ Depth (inches): $12^{\circ}$ itoring well, aerial photos, previous insp	

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Shifler Property	City/County:Yolo	County Sampling	g Date: 9/10/10
Applicant/Owner: Teichert Agaregiates		State:A Sampling	g Point:(
Investigator(s): Daria Snider	Section, Township, Range	Section 27+	28/TIDN/FIE
Landform (hillslope, terrace, etc.):	Local relief (concave, conv	vex, none): Conta v.e	Slope (%):
	at: Lo	ong:	Datum: NAD83
Soil Map Unit Name: Yolo Citty Inave		NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes <u>X</u> No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signif	icantly disturbed? Are "Nor	mal Circumstances" present?	Yes No
Are Vegetation, Soil, or Hydrology nature	ally problematic? (If neede	ed, explain any answers in Rem	arks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No_X Yes No YesX No	- Is the Sampled Area - within a Wetland? - Waders	Yes_X	_ 1. <mark>No</mark>	
Remarks: Pond		· · · · · · · · · · · · · · · · · · ·		ал. Т	

#### VEGETATION

er Species? Status	27.693
	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
	and a second sec
	Total Number of Dominant
	Species Across All Strata: (B)
	Percent of Dominant Species
	That Are OBL, FACW, or FAC: (A/B)
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species x 1 =
	FACW species x 2 =
	FAC species x 3 =
	FACU species x 4 =
	UPL species x 5 =
	Column Totals: (A) (B)
	······································
	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
	Dominance Test is >50%
	Prevalence Index is ≤3.0 <sup>1</sup>
	Morphological Adaptations <sup>1</sup> (Provide supporting
	data in Remarks or on a separate sheet)
	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	be present.
_	Hydrophytic
Crust	Vegetation Present? Yes No X
n sparse c	lead los la land
	replacem latitation

US Army Corps of Engineers

SOIL

Sampling Point

	0 11/1 / / / / / /	
MARTIN COMMA	epth needed to document the indicator or con	firm the absence of indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	<u>Redox Features</u> Color (moist) %Ype <sup>1</sup> _ Loc <sup>*</sup>	<sup>2</sup> Texture Remarks
(inches) Color (moist) %	Color (moist) %ypeLoc	Texture Remarks
<sup>1</sup> Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining	g. RC=Root Channel, M=Matrix.
Hydric Soil Indicators: (Applicable to a		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histosof (11) Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	,
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)		wetland hydrology must be present.
Restrictive Layer (if present):		
Туре:		
Depth (inches):	+2	Hydric Soil Present? Yes No
Remarks:		
No soil pit dug.		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sur	fficient)	Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
K 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		Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
X Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soil	
Inundation Visible on Aerial Imagery (		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:	Ottom	
	No. Double (Incharable 2012"	
Surface Water Present? Yes X	No Depth (inches): $\sim 12^{\prime\prime}$	
Water Table Present? Yes	No Depth (inches):	MARIE MARIE A LA LOS ANNO 1221 AMARIE MARI
	No Depth (inches): W	/etland Hydrology Present? Yes 🗶 No
(includes capillary fringe)	nonitoring well, aerial photos, previous inspection	) if available:
Describe Recorded Data (stream gadge, ff	tomoning wen, aenai photos, previous inspection	13), 11 avallabie.
Remarks:	a to the st	
UTIWM presen-	t + indicated by the e	edge of venetation.
i.	J	0 0

### WETLAND DETERMINATION DATA FORM - Arid West Region

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Project/Site: Shifler Property	City/County You	County_ Sampl	ing Data: 9/10/10
Applicant/Owner: Teichert Agaregiates		State: <u>CA</u> Sampl	
Investigator(s): Daria Snider		<ul> <li>Construction and the state of t</li></ul>	
Landform (hillslope, terrace, etc.): Care-tructed Enci	Local relief (concave,	convex, none): <u>Contave</u>	Slope (%):
Subregion (LRR): La	it:	_ Long:	Datum: <u>NAD83</u>
Soil Map Unit Name: Yolo silt long		NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes $X$ No _	(If no, explain in Remarks	.)
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed? Are "	Normal Circumstances" present?	Yes X No
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If ne	eded, explain any answers in Re	marks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point le	ocations, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes X No Hydrology Present	x within a Wetlar appears to ha t appear to b	rve been used	as a detertion
VEGETATION			
Tree Stratum         (Use scientific names.)         % (           1.	colute Dominant Indicator Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
2		Total Number of Dominant	1
3		Species Across All Strata:	(B)
4		Percent of Dominant Species	
Sapling/Shrub_Stratum	M120-27-26	That Are OBL, FACW, or FAC:	(A/B)
1		Prevalence Index worksheet:	
2		Total % Cover of:	Multiply by:
			A suggest that a subscription of the subscription of the

4					(0)
Total Cover: <u>Sapling/Shrub Stratum</u>			Percent of Dominant Species That Are OBL, FACW, or FAC:	O	(A/B)
1			Prevalence Index worksheet:		
2			Total % Cover of:	Multiply by:	
3			OBL species	(1=	_
4			FACW species >	(2=	
5			FAC species	(3=	
Total Cover:			FACU species >	( 4 =	
Herb Stratum		/	UPL species	(5=	
1. Phalaris paradoxa		N/L	Column Totals: (/	A)	_ (B)
2. Avena tatua		N/L			
3. Bromus hardenceus		- tacu-	Prevalence Index = B/A =		-
4. Bronus diandrus	5	to he	Hydrophytic Vegetation Indic	ators:	
5			Dominance Test is >50%		
6			Prevalence Index is ≤3.0 <sup>1</sup>		
7			Morphological Adaptations data in Remarks or on a	(Provide suppor separate sheet)	ting
Total Cover:	50		Problematic Hydrophytic Ve	egetation <sup>1</sup> (Explai	n)
Woody Vine Stratum			Indicators of books		20033
1			<sup>1</sup> Indicators of hydric soil and we be present.	tland hydrology r	nust
2					- H
Total Cover:	2		Hydrophytic Vegetation		
% Bare Ground in Herb Stratum % Cover of	of Biotic Crust	80		No	
Remarks:					
				~	

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SOIL

SOIL								Sampling Point	10_
Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	e of indicators.)	
Depth	Matrix	10 10	Redox Features						
(inches)	Color (moist)	%	Color (moist)		Type'	Loc <sup>2</sup>	Texture	Remarks	
0-10"	2.543/2	100				and going of the state of the state	day	00 40	
	- Civil 12						-		
								1 ( 1 <del></del>	
	•							30	
		· · · · · · ·			-				
								10750 - 10750 - 10	
	2								
									( <del></del>
<sup>1</sup> Type: C=Co	ncentration, D=Dep	letion, RM=	Reduced Matrix.	<sup>2</sup> Location	: PL=Pore	Lining, R	C=Root Chan	nel, M=Matrix.	
Hydric Soil II	ndicators: (Applic	able to all L	RRs, unless other	rwise note	ed.)		Indicators	s for Problematic Hydric Soils <sup>3</sup> :	
Histosol (	A1)		Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)	
Histic Epi	pedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck (A10) (LRR B)		
Black His	tic (A3)		Loamy Muc	ky Mineral	(F1)		Reduced Vertic (F18)		
Hydroger	Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)		
Stratified	Layers (A5) (LRR (	C)	Depleted M	atrix (F3)			Other (Explain in Remarks)		
1 cm Mud	k (A9) (LRR D)		Redox Dark	Surface (	F6)				
Depleted	Below Dark Surface	e (A11)	Depleted D	ark Surface	e (F7)				
Thick Dar	k Surface (A12)		Redox Depi	ressions (F	-8)				
Sandy M	ucky Mineral (S1)		Vernal Pool	s (F9)			<sup>3</sup> Indicators	of hydrophytic vegetation and	
Sandy Gl	eyed Matrix (S4)						wetland	hydrology must be present.	
Restrictive L	ayer (if present):								
Type:		lan a							
Depth (incl	nes):		191				Hydric Soil	Present? Yes No	X
					- Annan		ingane con		
Remarks:									
Refus	al at 10	". Na	> hydr	ic S	bil in	nduc	ators	cletected.	1
			0						
	Save a second								

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:         Surface Water Present?       Yes No _X Depth (inches):	Wetland Hydrology Present? Yes <u>X</u> No ctions), if available:
Remarks: A soil crust of some sort is present is a biotic crust, or maybe cher	t, but it is unclear if it nical/pesticide residue,

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Shifler Property	city/county: Yold County	Sampling Date:
Applicant/Owner: Teichert Agaragates	State: CA	Sampling Point: 🕅
Investigator(s): Daria Snider	Section, Township, Range: Section	27+28/TIDN/RIE
Landform (hillslope, terrace, etc.): Constructed channel	Local relief (concave, convex, none):	Slope (%):
Subregion (LRR): Lat:	Long:	Datum: NADR3
Soil Map Unit Name: Yolo sitt lown	NWI clas	sification: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes $\underline{X}$ No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstance	s" present? Yes $\underline{\hspace{0.1cm}} \hspace{0.1cm} X_{\underline{}}$ No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed, explain any ans	swers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes _ X	No_X No_X No	ls the Sampled Area within a <del>Wetland</del> ? Waters	Yes N	0
Remarks: Irrigation	canal,			uff.	

#### VEGETATION

			Dominance Test worksheet:	
	-market - references - several states - st	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Number of Dominant Species That Are OBL, FACW, or FAC: (A)	
			Total Number of Dominant Species Across All Strata: (B)	
			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)	Ň
<u> </u>			Prevalence Index worksheet:	
			FACW species x 2 =	
			FACU species x 4 =	
			Column Totals:         (A)         (B)	
			Prevalence Index = B/A =	_
		<del></del>	Dominance Test is >50%	
			<ul> <li>Prevalence Index is &lt;3.0'</li> <li>Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>	
			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
			Hydrophytic Vegetation	
of Biotic Crus	st		Present? Yes No X	
t Ech	inode	rus I	berteroi + Echinochloa	
	<u>% Cover</u>	% Cover         Species?	% Cover         Species?         Status	% Cover       Species?       Status       Number of Dominant Species

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SOIL								Sampling P	oint:	8
Profile Desc	cription: (Describe t	o the depth	needed to docu	ment the ind	dicator o	r confirm	the absence of i	ndicators.)		
Depth <u>Matrix Redox Features</u>										
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rema	rks	
	· · · · · · · · · · · · · · · · · · ·									
	<del>22</del> 8 2									
		<u> </u>								
							1000			
1Tuma: 0-0		tion DM-D	a dua a d Matrix	21		Lisian D	C-Dest Observal			
	oncentration, D=Deple Indicators: (Applica					Lining, R	C=Root Channel, Indicators for	Problematic Hyd	tric Soi	ls <sup>3</sup> .
Histosol			Sandy Red				1 cm Muck			
C. C	bipedon (A2)		Stripped Ma	5 E				(A10) (LRR B)		
Black Hi				ky Mineral (	F1)		Reduced \	12.0 12.12	2	
Hydroge	n Sulfide (A4)		Loamy Gley	yed Matrix (F	2)		Red Paren	t Material (TF2)		
Stratified	Layers (A5) (LRR C)	)	Depleted M	atrix (F3)			Other (Exp	lain in Remarks)		
	ck (A9) (LRR D)			Surface (F6						
	d Below Dark Surface	(A11)	1370-1370 - 192	ark Surface	5 A					
	ark Surface (A12)		1.57125.7	ressions (F8	)		2			
	lucky Mineral (S1)		Vernal Pool	ls (F9)				ydrophytic vegeta		i
	Bleyed Matrix (S4)						wetland hyd	rology must be pr	esent.	
	ayer (if present):									
Туре:					17					V
	ches):		_				Hydric Soil Pre	sent? Yes	N	lo_ <u>×</u>
Remarks:										
110	soil pit	die	to no	arre	1C	Sub	oftale.			
NO	SON PT	LINC	10 QO	8 A.M. (1997)	= 16779250					

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
High Water Table (A2)	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 Other (Explain in Remarks)	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> </ul>
Water Table Present?       Yes No _X         Saturation Present?       Yes No _X         (includes capillary fringe)	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring Remarks:		
OHWM present and in of vegetation above	OHIUM.	ter marks + presence

Project/Site: Shifler Property	City/County: Yold County Sampling Date: 9/10/10
Applicant/Owner: Teichert Agasegates	State: CA Sampling Point:1N
Investigator(s): Daria Snider	Section, Township, Range: Section 27+28/TIDN/RIE
Landform (hillslope, terrace, etc.): Road way	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat:	Long: Datum: <u>NAD83</u>
Soil Map Unit Name: Yhlo silt loam	NWI classification: NOOCE
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Presen Hydric Soil Present? Wetland Hydrology Present?	t? Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	NoX	
Remarks: Upland (o	mparison	+0 DI	> 8.			

#### VEGETATION

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant Species
1	-		2. <u> </u>	That Are OBL, FACW, or FAC: (A)
2				Tabilitation (D)
3				Total Number of Dominant Species Across All Strata; (B)
				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:				That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum				
1			<del>, , , , , , , , , , , , , , , , , , , </del>	Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
Total Cover:				FACU species x 4 =
Herb Stratum				UPL species x 5 =
1. Salcola traais	tr		FACU	Column Totals: (A) (B)
2. Amaranihus blitoides	4-		Facil	(A)(B)
3. Chenoto dium album				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
4				
5				Dominance Test is >50%
6				Prevalence Index is ≤3.0 <sup>1</sup>
7	. <u> </u>			Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8				
Total Cover:	tr			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum				
1				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2				be present.
Total Cover:				Hydrophytic
		~	e la	Vegetation
% Bare Ground in Herb Stratum <u>~~ 1000</u> % Cover	of Biotic Cr	ust		Present? Yes No X
Remarks:				
Mostly un vegetated, app	0500	11.	1.00	to portivide
Mostly in vegetation, ripp	aren	1110	cive	10 reforce -
<u> </u>		U		£1
sprauling.				
<u> </u>				

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Sampling Point: \_\_\_\_\_N

Profile Description: (Describe to t Depth Matrix	Redox Features	
(inches) Color (moist)		<sup>2</sup> TextureRemarks
0-12" 2.5141/2 1	00	- Sandy loan
		1 8 <del>2012)</del>
	on, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Linin	
Hydric Soll Indicators: (Applicable	e 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 (A		
Thick Dark Surface (A12)	Redox Depressions (F8)	31-11-1
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	Indicators of hydrophytic vegetation and
Restrictive Layer (if present):		wetland hydrology must be present.
Туре:	the second se	× ×
Depth (inches): Remarks:		Hydric Soil Present? Yes No
0		
YDROLOGY		
Wetland Hydrology Indicators:	4	Secondary Indicators (2 or more required)
Drimon Indiantora (antere a la d'ester		
-rimary indicators (any one indicator	is sufficient)	Water Marks (B1) (Riverine)
Primary Indicators (any one indicator Surface Water (A1)	is sufficient) Salt Crust (B11)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Surface Water (A1)		
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Surface Water (A1) High Water Table (A2) Saturation (A3)	<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>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> </ul>
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	<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</li> </ul>	<ul> <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>
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1) (Nonriverine)</li> <li>Sediment Deposits (B2) (Nonriverine)</li> </ul>	<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</li> </ul>	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> </ul>
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	<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</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed Social</li> </ul>	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> </ul>
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)	<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</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed Social</li> </ul>	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>ils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> </ul>
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 Imag Water-Stained Leaves (B9)	<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</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed Social</li> </ul>	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> </ul>
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 Imag Water-Stained Leaves (B9) Field Observations:	<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</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Plowed Sol</li> <li>Other (Explain in Remarks)</li> </ul>	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>ils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> </ul>
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 Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes _	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living ) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol yery (B7) Other (Explain in Remarks)	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>ils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> </ul>
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes _ Water Table Present? Yes _	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol uery (B7) Other (Explain in Remarks) No X Depth (inches): 12"	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>ils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
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 Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes _ Nater Table Present? Yes _ Saturation Present? Yes _	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol uery (B7) Other (Explain in Remarks) No X Depth (inches): 12"	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Roots (C3)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>ils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> </ul>
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes _ Nater Table Present? Yes _ Saturation Present? Yes _ includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol uery (B7) Other (Explain in Remarks) No X Depth (inches): 12"	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) ils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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 Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes _ Nater Table Present? Yes _ Saturation Present ? Saturation Present ? Saturation Present ? Saturation Present ? Satura	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol ery (B7) Other (Explain in Remarks) No X Depth (inches): 12" No X Depth (inches): 12" No X Depth (inches): 12"	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) ils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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 Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Mater Table Present? Yes Saturation Present? Yes Saturation Present? Yes Concludes capillary fringe) Describe Recorded Data (stream gau		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
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Urift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Nater Table Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Cincludes capillary fringe) Describe Recorded Data (stream gau Remarks:		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
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Nater Table Present? Yes Saturation Present? Yes Sat		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) Vetland Hydrology Present? Yes No
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 Imag Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Mater Table Present? Yes Saturation Present? Yes Saturation Present? Yes includes capillary fringe) Describe Recorded Data (stream gau	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) erine) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sol ery (B7) Other (Explain in Remarks) No X Depth (inches): 12" No X Depth (inches): 12" No X Depth (inches): 12"	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) Vetland Hydrology Present? Yes No

Project/Site: _Shi	fler Prope	ertu	City/County:	Yolo	County	Sampling D	Date: 9/10/10
Applicant/Owner: T					_ State: CA	_ Sampling P	Point: 10
Investigator(s): Da	ria Snic	でもし	Section, Town	nship, Range	Section	27+2	8/TION/EIE
Landform (hillslope, te	rrace, etc.): <u>Cor</u>	structed	channelLocal relief (d	concave, conv	/ex, none):		_ Slope (%):
Subregion (LRR):			Lat:	Lo	ong:		Datum: NADE3
Soil Map Unit Name: _	Yolo silt	Isam			NWI classi	fication:	None
Are climatic / hydrolog	ic conditions on the	site typical for th	is time of year? Yes $\underline{X}$	No	(If no, explain in	Remarks.)	
Are Vegetation	, Soil, or H	ydrology	significantly disturbed?	Are "Nor	mal Circumstances	present? Ye	es <u>X</u> No
Are Vegetation	, Soil, or Hy	ydrology	naturally problematic?	(If neede	d, explain any answ	vers in Remark	(S.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes YesX	No X No X No	Is the Sampled Area within a Wetland? waters	Yes_X	No	
Remarks: Irrigation ca	nal				ik	

#### VEGETATION

	Absolute	Dominant		Dominance Test wor	rksheet:	
Tree Stratum (Use scientific names.)		Species?		Number of Dominant	Species	
1		)		That Are OBL, FACW	, or FAC:	(A)
2				Total Number of Domi	inant	1
3	. <u></u>			Species Across All Str	rata:	(B)
4	-			Demont of Demission		
Total Cover:				Percent of Dominant S That Are OBL, FACW	or FAC:	(A/B)
Sapling/Shrub Stratum					, 011 AO.	(~b)
1				Prevalence Index wo	orksheet:	
2				Total % Cover of:	Multiply	by:
3				OBL species	x 1 =	
4				FACW species		
5				FAC species		
Total Cover:				FACU species		
Herb Stratum	2			UPL species		
1				Column Totals:		
2					(/)	(5)
3				Prevalence Inde	x = B/A =	
4				Hydrophytic Vegetat	ion Indicators:	
5				Dominance Test i	s >50%	
6				Prevalence Index		
7				Contraction of the second second	aptations <sup>1</sup> (Provide s	
0				data in Remark	ks or on a separate s	heet)
0	<u> </u>			Problematic Hydro	ophytic Vegetation <sup>1</sup> (	Explain)
Woody Vine Stratum						
1				<sup>1</sup> Indicators of hydric so	oil and wetland bydro	logy must
				be present.		
2				Hydrophytic	a second second second second	
Total Cover:			3	Vegetation		
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust		Present? Ye	es No_>	<u>/</u>
Remarks:						
Channel is invegetated,	but	ban	.ks	support P	blygonum	SP,
Channel is invegetated, Paspalum dilatatum, Sorghum	n ha	lapen	se, C	yperus escul	lentus; Fch	linochio
colon, Leptochlon fasicula	is, +	CLIMOC	lon	dactulon, +	Эс.	
IS Army Corps of Engineers	2	J		J .	Arid West - Vers	ion 11-1-2006

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Profile Desc	ription: (Describe to	the depth	needed to docum	nent the ir	ndicator o	or confirm	the absence of i	ndićators.)	
Depth	Matrix								
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remar	ks
					<u> </u>				
(	· · · · · · · · · · · · · · · · · · ·							()*	
									un
							<u> </u>		
<sup>1</sup> Type: C=Co	ncentration, D=Deple	tion, RM=Re	duced Matrix.	<sup>2</sup> Location:	PL=Pore	e Lining, R	C=Root Channel, I	M=Matrix.	
Hydric Soil I	ndicators: (Applical	ble to all LR						Problematic Hyd	ric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Redox (S5)				1 cm Muck (A9) (LRR C)		
Histic Ep	ipedon (A2)		Stripped Ma	trix (S6)				(A10) (LRR B)	
Black His	stic (A3)		Loamy Mucl	ky Mineral	(F1)		Reduced V	/ertic (F18)	•
Hydroger	n Sulfide (A4)		Loamy Gley	ed Matrix (	(F2)		Red Paren	t Material (TF2)	
Stratified	Layers (A5) (LRR C)		Depleted Ma	atrix (F3)			Other (Exp	lain in Remarks)	
1 cm Mu	ck (A9) (LRR D)		Redox Dark						
	Below Dark Surface	(A11)	Depleted Date	rk Surface	e (F7)				
	rk Surface (A12)		Redox Depr	2. C	8)		2		
	ucky Mineral (S1)		Vernal Pools	s (F9)				ydrophytic vegetat	
	eyed Matrix (S4)						wetland hyd	rology must be pre	esent.
Restrictive L	ayer (if present):								
Type:			-		20				
Depth (inc	hes):		<del></del>				Hydric Soil Pres	sent? Yes	No
Remarks:									
No si	il pit du	ade	to do	th	c.no	1 she	Po has	weder.	
5 20	T PILLIO	J	0 212	1		-			

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficie	nt)	Water Marks (B1) (Riverine)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1) (Nonriverine)</li> <li>Sediment Deposits (B2) (Nonriverine)</li> <li>Drift Deposits (B3) (Nonriverine)</li> <li>Surface Soil Cracks (B6)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> </ul>	Presence of Reduced Iron (C4)	<ul> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Thin Muck Surface (C7)</li> <li>Crayfish Burrows (C8)</li> <li>Soils (C6)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Water Table Present? Yes X No		Wetland Hydrology Present? Yes <u>X</u> No tions), if available:
Remarks: OHIUM present + in	dicated by ex-	tent of scar.

Project/site: Shifler Property	С	ity/County: Yold	County	Sampling Date:	9/10/10
Applicant/Owner: Teichert Agaregy				_ Sampling Point:	
Investigator(s): Daria Snider	S	Section, Township, Ra	nge: Section	27+28/7	IDN/RI
Landform (hillslope, terrace, etc.): Terrace		ocal relief (concave.	convex. none):	Slope	(%)
Subregion (LRR):					
			NWI classif		
Are climatic / hydrologic conditions on the site typica		- 1 /			
Are Vegetation, Soil, or Hydrology _			Normal Circumstances"	17	Ne
Are Vegetation, Soil, or Hydrology _				an and a set of	NO
SUMMARY OF FINDINGS – Attach site			eded, explain any answ	- 1949 - 949 C. C. Y. 1952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952 - 952	tures etc
				o, important rea	
	No No <u>_</u> ×	Is the Sampled		820 C	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes		within a Wetlan	nd? Yes	No	
Remarks:				19	
	27 10				
Upland comparison +	D DP 10.				
/EGETATION					
Tree Stratum (Use scientific names.)		Dominant Indicator Species? Status	Dominance Test wor	962 II. 452	
1. QUEFCUS lobata	The second se		Number of Dominant S That Are OBL, FACW	Species	(A)
2			an atanan a satur t		(~)
3			Total Number of Domi Species Across All Str		(B)
4					
	I Cover: <u>70</u>		Percent of Dominant S That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum 1. Sambucus nigra sep. Cer	allan an	/ Exc	Prevalence Index wo		
2.	Under no		Total % Cover of:		2.4
3			OBL species		
4.			FACW species		
5			FAC species		
	I Cover: 20		FACU species		110000-02
Herb Stratum	. 10	N/L	UPL species		
1. Epilohium brachuparpu 2. Cumpdon dartsellon	<u>na 10</u> In	Fac Fac	Column Totals:	(A)	(B)
2 CINDARA AREIGUNI		V Inc	Prevalence Index	c = B/A =	
4			Hydrophytic Vegetati		
•5			$\underline{\times}$ Dominance Test is		
5			Prevalence Index		
7		and a second	Morphological Ada	aptations <sup>1</sup> (Provide su is or on a separate sl	
8Toto	Cover: 20		Problematic Hydro		
Woody Vine Stratum	50ver			ne aren estat dit.	200 AST2
1			<sup>1</sup> Indicators of hydric so be present.	il and wetland hydrol	ogy must
2					
	Cover:	6	Hydrophytic Vegetation		
% Bare Ground in Herb Stratum %	Cover of Biotic Cru	st		os_ <u>Y_</u> No	
Remarks:					
				<b>4</b> 39	

SOIL			Sampling Point:
	e depth needed to document the indicator or conf	firm the absence	e of indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	Redox Features	- Texture	Remarks
in internet			2
012 2.0 1 5/2 10	TD reserves and the second sec	= day	loam
	· · · · · · · · · · · · · · · · · · ·	(	
		_	
			· · · · · · · · · · · · · · · · · · ·
			Net company and the last as a second second
Type: C=Concentration, D=Depletion,			
	o all LRRs, unless otherwise noted.)	Indicator	s for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (S5)		Muck (A9) (LRR C)
_ Histic Epipedon (A2)	Stripped Matrix (S6)		Muck (A10) (LRR B)
_ Black Histic (A3)	Loamy Mucky Mineral (F1)	2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 -	ced Vertic (F18)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		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	· · · · · · ·		
_ Thick Dark Surface (A12)	Redox Depressions (F8)	3	
_ Sandy Mucky Mineral (S1)	Vernal Pools (F9)		s of hydrophytic vegetation and
_ Sandy Gleyed Matrix (S4) estrictive Layer (if present):		weiian	d hydrology must be present.
Type:		Undela Del	Brown D. Mark
Depth (inches): emarks:		Hydric Sol	I Present? Yes No
No nyane se	il indicators detecto	<i>Ci</i> <b>·</b>	
DROLOGY			
etland Hydrology Indicators:		Seco	ndary Indicators (2 or more required)
imary Indicators (any one indicator is	sufficient)	\	Water Marks (B1) ( <b>Riverine</b> )
_ Surface Water (A1)	Salt Crust (B11)	5	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) (Nonriver	ne) Oxidized Rhizospheres along Living F	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 in Plowed Soil		Saturation Visible on Aerial Imagery (C9
Inundation Visible on Aerial Imager			Shallow Aquitard (D3)
Water-Stained Leaves (B9)	, (, <u>-</u> , (,,,,,,,,,,,-		FAC-Neutral Test (D5)
eld Observations:			
	No <u>X</u> Depth (inches): <u>12."</u>		
	No Depth (inches):12"		
0.0 MM 1979 DAYS 1989		atland Hydrolog	gy Present? Yes No
icludes capillary fringe)			10 NU
	e, monitoring well, aerial photos, previous inspection	s), if available:	
emarks:			
v 11. f 1	dualant india in a		
Jo werrand hyp	drology indicatas p	resent	× ×
$\mathcal{O}$	$O \circ$		

Project/Site: Shifler Property	City/County: Yolo County_ Sampling Date: 9/10/10
Applicant/Owner: Teichert Agaregiates	State: <u>CA</u> Sampling Point: 12.
Investigator(s): Daria Snider	Section, Township, Range: Section 27+28/TIDN/RIE
Landform (hillslope, terrace, etc.): Ditch	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat:	Long: Datum: NAD83
Soil Map Unit Name: Yolo silt loram	NWI classification: NOOCE
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a <del>Wetland</del> ? Waters	Yes <u>X</u> No	
Remarks: Drainage ditch	Note-feature	dead-ends inte	o recently-tilled f	ield

#### VEGETATION

	Absolute	Dominant		Dominance Test worksh	neet:	
Tree Stratum (Use scientific names.) 1	A second conversion of the	Species?		Number of Dominant Spe That Are OBL, FACW, or		(4)
				That Are OBL, FACVV, OF	FAC:	- (A)
2				Total Number of Dominan		
3				Species Across All Strata	:	_ (B)
4				Percent of Dominant Spe	riec	
Total Cover: Sapling/Shrub Stratum				That Are OBL, FACW, or	FAC:	_ (A/B)
1				Prevalence Index works	heet:	
2				Total % Cover of:		
3				OBL species		
4				FACW species		
5				FAC species		
Total Cover:				FACU species		
Herb Stratum				UPL species		
1				Column Totals:		
2						_ (-)
3				Prevalence Index =	B/A =	
4				Hydrophytic Vegetation	Indicators:	
5				Dominance Test is >5	50%	
6				Prevalence Index is ≤	:3.0 <sup>1</sup>	
7				Morphological Adapta		
8					r on a separate shee	
Total Cover:				Problematic Hydrophy	ytic Vegetation <sup>1</sup> (Expl	ain)
Woody Vine Stratum						
1				<sup>1</sup> Indicators of hydric soil a	nd wetland hydrology	must
2				be present.		
Total Cover:				Hydrophytic		
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust		Vegetation Present? Yes_	No <u>X</u>	
Remarks:						
Feature is primarily in Epilobium brachycarpum	vegeti	ated	Lut 1	Pla alaric an	I	
Esilation 1 de la como	0	1		marins agua	ctra 1	
chinging prachycarpun	ie re	pro-e	11-1 (	sh banks,		

US Army Corps of Engineers

Depth	Matrix	the depth needed to docu					
(inches)	Color (moist)	% Color (moist)	ox Features % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-6" 2.543/2 100		0			mucky r	nodified	miner
ype: C=C	oncentration, D=Depleti	on, RM=Reduced Matrix.	<sup>2</sup> Location: PL=Por	e Lining, R	C=Root Channel, M	=Matrix.	
		e to all LRRs, unless othe				roblematic Hydric	Soils <sup>3</sup> :
	pipedon (A2)	Sandy Rec Stripped M			ST 112	A10) (LRR B)	240
	istic (A3) an Sulfide (A4)				Reduced Vertic (F18) Red Parent Material (TF2)		
_ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) (LRR C) Depleted Matrix (F3)			Other (Explain in Remarks)				
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11)			Redox Dark Surface (F6) Depleted Dark Surface (F7)				
	ark Surface (A12)		pressions (F8)				
Sandy N	Aucky Mineral (S1)	Vernal Poo			<sup>3</sup> Indicators of hydrophytic vegetation and		
_ Sandy G	Gleyed Matrix (S4)	240 million		1.5	wetland hydrology must be present.		
estrictive	Layer (if present):						
Type:							
Depth (ind	ches):				Hydric Soil Prese	ent? Yes X	No
emarks:							
DROLO	GY						
etland Hyd	drology Indicators:				Secondary I	ndicators (2 or mor	e required)
imary Indic	ators (any one indicator	is sufficient)			Water M	Marks (B1) ( <b>Riverin</b>	e)
Surface	Water (A1)	Salt Crust	: (B11)		Sedime	nt Deposits (B2) (R	iverine)
High Water Table (A2) Biotic Crust (B12)				Drift De	posits (B3) (Riverin	ne)	
X Saturation (A3) Aquatic Invertebrates (B13)				Drainag	je Patterns (B10)		
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)					Dry-Sea	ason Water Table (	C2)
Sedimen	t Deposits (B2) (Nonriv	erine) Oxidized	Rhizospheres along	Living Root	ts (C3) Thin Mu	uck Surface (C7)	
	oosits (B3) (Nonriverine		of Reduced Iron (C4			n Burrows (C8)	
2	Soil Cracks (B6)		on Reduction in Plow	f		ion Visible on Aeria	I Imagery (CS
1.5	on Visible on Aerial Imag	18 August 19	Aquitard (D3)				

Water-Stained	Leaves (B9)	OHWM	FAC-Neutral	
Field Observation Surface Water Pre Water Table Prese	sent? Yes	No Depth (inches):	and the second	0
Saturation Present (includes capillary Describe Recorded	fringe)	No Depth (inches): <u>&lt;</u>		Yes <u>X</u> No
Remarks: OHWM	present t	inclicated by	change in veg	12

Project/Site: Shifler Property	_ City/County: Yold County samp	pling Date: <u>9/10/10</u>
Applicant/Owner: Teichert Angragates	State: CA Samp	bling Point: 13N
Investigator(s): Daria Snider	_ Section, Township, Range: _ Section 27.	+28/TION/EIE
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none):	Slope (%):
Subregion (LRR): Lat:	Long:	Datum: NAD83
Soil Map Unit Name: Yolo sitt loam	NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes $\underline{X}$ No (If no, explain in Remark	s.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" presen	t? Yes <u>X</u> No
Are Vegetation, Soil, or Hydrology naturally p	oroblematic? (If needed, explain any answers in R	emarks.)

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

Hydrophytic Vegetation Presen Hydric Soil Present? Wetland Hydrology Present?	t? Yes N Yes N Yes N		Is the Sampled Area within a Wetland?	Yes	<u>No</u>	
Remarks: Vpland	companisc	n to	DP 12.	3,62710401		

VEGETATION

		Dominant		Dominance Test worksheet:
Tree Stratum (Use scientific names.) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4 Total Cover Sapling/Shrub Stratum	:			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/E
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	:	3		FACU species x 4 =
Herb Stratum		1	1.21	UPL species x 5 =
1. Malva neglocta	()		NIL	Column Totals: (A) (B
2				
3				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 <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
Total Cover Woody Vine Stratum	: <u>    10    </u>	0 0		Problematic Hydrophytic Vegetation <sup>1</sup> (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 Cr	ust	Q	Vegetation Present? Yes No
Remarks:				1
				18.5

COIL								Sampling P	
Profile Des	cription: (Describe	to the dept	h needed to docum	nent the i	ndicator o	or confirm	the absence of	indicators.)	
Depth	Matrix	23. 	Redo	x Features	5				
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remai	ks
0-12"	25Y 3/2	100 .					- mondu	day long	3
								0	
							<u> </u>	t <sub>m</sub> r	
		· · · · ·							
	Read Contractor of the								
			and and a star		d <del>i d</del> e				
					<del></del>				
	8 MITTON								
17. mai 0-0			Daduard Matrix	21		Lisian D			
	oncentration, D=Dep Indicators: (Applic					Lining, R	C=Root Channel,	M=Matrix. Problematic Hyd	Iria Calla <sup>3</sup>
					su.)			5	Inc Solis :
Histosol			Sandy Redo	- 50 - 50 -				k (A9) (LRR C)	
	pipedon (A2) istic (A3)		Stripped Ma		154			k (A10) (LRR B)	*
	n Sulfide (A4)		Loamy Mucl Loamy Gley				Reduced	nt Material (TF2)	
	d Layers (A5) (LRR C	-)	Depleted Ma		(12)		2011 C 10 C		
	ick (A9) (LRR D)	•)	Redox Dark	일은 것에서 물수가 가지하는 것	F6)		Other (Explain in Remarks)		
I Service Contraction	d Below Dark Surface	e (A11)	Depleted Da	The second second					
	ark Surface (A12)	. ( ,	Redox Depr						
	Aucky Mineral (S1)		Vernal Pool		-/		<sup>3</sup> Indicators of h	ydrophytic vegeta	tion and
	Bleyed Matrix (S4)						wetland hydrology must be present.		
the second se	Layer (if present):								
100 C 100 C 100 C	ches):				£1		Hydric Soil Pre	sent? Yes	No_Y
Remarks:									
NOV	ydric so	1 100	lia das	Jel-	1-1				
, -0 1	0 30	11 120	HEADUS (	rette	Ter.				

### HYDROLOGY

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 Livi	ng 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 in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No </u> Depth (inches): <u>12</u>	
Water Table Present? Yes <u>No X</u> Depth (inches): <u>2</u>	2
Saturation Present? Yes <u>No X</u> Depth (inches): <u>No X</u> (includes capillary fringe)	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	/
No wetland hydrology indicata	s detected.

Aerial Photograph



NOTES
oject acreage: ± 320.4
a source: Teichert
oto source: Digital Globe, September 2009
y source:
ect boundary extents depicted on this graphic have been provided by Teicherf.



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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
Épilobium 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

Common Name	Indicator Status
Poison oak	N/L
Puncture vine	N/L
Narrow-leaf cattail	OBL
Cattail	OBL
	Poison oak Puncture vine Narrow-leaf cattail

#### 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.

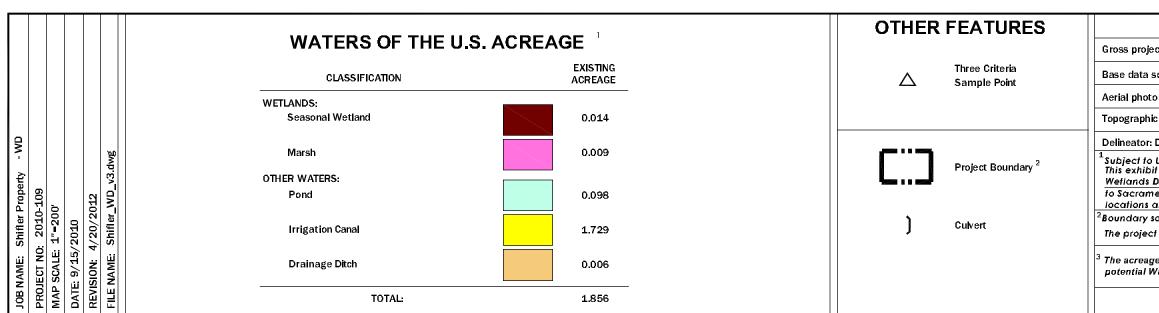
N/L = Not Listed.

**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.

Wetland Delineation





NOTES	
ect acreage: ± 320.4	
source: Teichert	
to source: Digital Globe, September 2009	
ic data source: Woodland USGS Topographic Quadrangle	
D. Snider	
U.S. Army Corps of Engineers verification. If depicts information and data produced in strict accord with the welland delineation methods described in th <u>e 1987 Corps of Engineers</u> Delineation Manual and the Interim Regional Supplement to the Corps of Engineers Welland Delineation Manual: Arid West Region and conforms	
nento District specifications. However, wetland boundaries have not been legally surveyed and may be subject to minor adjustments if exact are required.	
source:	
ct boundary extents depicted on this graphic have been provided by Teicherf Materials.	
ge value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total Waters of the U.S. acreage reported.	



 SmD
 SmF2

 SmD - Sehorn-Balcom complex, 2-15% slopes

 SmF2 - Sehorn-Balcom complex, 30-50% slopes, eroded

 BrA - Brentwood silty clay loam, 0-2% slopes

 Lm - Loamy alluvial land

 Ya - Yolo silt loam
 Rh - Riverwash

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

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