LSA ASSOCIATES, INC. 157 PARK PLACE PT. RICHMOND. CALIFORNIA 94801

510.236.6810 TEL CARLSBAD 510.236.3480 FAX FORT COL

BERKELEY FRESNO CARLSBAD IRVINE FORT COLLINS PALM SPRINGS RIVERSIDE Rocklin San Luis obispo South San Francisco

August 12, 2013

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Cameron Johnson South Branch Chief U. S. Army Corps of Engineers 1455 Market Street, 16th Floor San Francisco, CA 94103-1398

Subject: Request for Verification of Jurisdictional Delineation D Street Project Site, unincorporated Alameda County, California

Dear Mr. Johnson:

On behalf of The Shaw Group; LSA Associates, Inc. (LSA) is requesting verification of the extent of U.S. Army Corps of Engineers (Corps) jurisdiction under Section 404 of the Clean Water Act for the above-referenced project site. This letter presents the results of a delineation performed by LSA of the potential extent of waters of the United States, including wetlands, on the project site.

SITE DESCRIPTION

The approximately 3.66-acre project site is located on the north side of D Street at addresses 2492 and 2512, approximately 1.5 miles east of its intersection with Foothill Boulevard in Hayward (Alameda County Assessor's Parcel Number 416-200-22-6 and 416-200-19-9). The site is situated within an unsectioned portion of Township 3 South, Range 2 West on the Hayward, California 7.5-minute USGS quadrangle, and is centered at 37.6808° North Latitude and 122.0567° West Longitude. Figure 1 (attached) depicts the regional location and project site location.

The project site slopes generally to the west and has elevations ranging from approximately 280 to 350 feet above sea level. The project site contains two homes, one occupied and one abandoned. Most of the site is surrounded by a perimeter fence. Much of the site has been graded for road access and to span two drainages which cross the site.

Vegetation on the site is dominated by ruderal grassland. The site contains several blue gum (*Eucalyptus globulus*), ash (*Fraxinus* sp.), and wild plum (*Prunus* sp.) trees in the drainages along the western edge of the site and a single redwood (*Sequoia sempervirens*). Shrubs include coyote brush (*Baccharis pilularis*) and Himalayan blackberry (*Rubus armeniacus*). Grass species observed consist of wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum*), hare barley (*H. murinum*), velvet grass (*Holcus lanatus*), and tall fescue (*Festuca arundinacea*). Forb species observed consist of mustard (*Brassica* sp.), wild radish (*Raphanus sativus*), buckhorn plantain (*Plantago coronopus*), bristly ox-tongue (*Helminthotheca echioides*), vetch (*Vicia sativa*), Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), bull thistle (*Cirsium vulgare*), poison hemlock (*Conium maculatum*), stinkwort (*Dittrichia graveolens*), and sweet fennel (*Foeniculum vulgare*). The

wet drainages contained cattails (*Typha latifolia*), spreading rush (*Juncus patens*), and nut sedge (*Cyperus eragrostis*).

The soil on the majority of the site is mapped by the U.S. Department of Agriculture as Azule clay loam, 9 to 30 percent slopes (Map Unit Symbol 103) and as Xerorthents-Los Osos complex, 30 to 50 percent slopes (158) (Web Soil Survey, <u>http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>, accessed 17 June 2013). Both soils are described as well drained with slow permeability. The Los Osos series has high shrink-swell characteristics. Neither soil is listed as hydric. Most of the soils observed on the site have been graded or include imported fill.

The site drains westward via two distinct seasonal drainages, which are confluent within 200 feet of the project site. The combined drainage joins another similar channel and is tributary to San Lorenzo Creek, possibly via municipal storm piping, approximately ½ mile northwest of the project site. San Lorenzo Creek is tributary to San Francisco Bay, a navigable water of the United States, approximately 5 miles west of the project site.

METHODS

The field investigations of potentially jurisdictional wetlands were conducted using the routine determination method provided in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the revised procedures in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Arid West Supplement; U.S. Army Corps of Engineers 2008). This methodology entails examination of specific sample points within potential wetlands for hydrophytic vegetation, hydric soils, and wetland hydrology. By the federal definition, all three parameters must be present for an area to be considered a wetland.

Hydrophytic plant species are listed by the National Wetland Plant List (2012). The National List identifies five categories of plants according to their frequency of occurrence in wetlands. The categories are:

•	Obligate wetland plants (OBL)	Plants that occur almost always in wetlands
•	Facultative wetland plants (FACW)	Plants that usually occur in wetlands
•	Facultative plants (FAC)	Plants that are equally likely to occur in wetlands or non-wetlands
•	Facultative upland plants (FACU)	Plants that usually occur in uplands
•	Obligate upland plants (UPL)	Plants that occur almost always in non-wetlands

An area is generally considered to have hydrophytic vegetation when more than 50 percent of the dominant species in each stratum (tree, shrub, and herb) are in the obligate wetland, facultative wetland, or facultative categories.

Hydric soils are defined by criteria set forth by the National Technical Committee for Hydric Soils (NTCHS). These criteria are given in the Wetland Delineation Manual Supplement and are based on depth and duration of soil saturation. Hydric soils are commonly identified in the field by using indirect indicators of saturated soil, technically known as redoximorphic features. These features are caused by anaerobic, reduced soil conditions that are brought about by prolonged soil saturation. The

most common redoximorphic features are distinguished by soil color, which is strongly influenced by the frequency and duration of soil saturation. Hydric soils tend to have dark (low chroma) colors that are often accompanied by reddish mottles (iron mottles), reddish stains on root channels (oxidized rhizospheres), or gray colors (gleying). The Arid West Supplement contains descriptions of numerous federally-recognized hydric soil indicators.

Under natural conditions, development of hydrophytic vegetation and hydric soils are dependent on a third characteristic, wetland hydrology. This criterion is met if the area experiences inundation or soil saturation to the surface for a period equal to at least five (5) percent of the growing season (about 14 days in the region of the project site) in a year of median rainfall. In most cases, this criterion can only be measured directly by monitoring the site through an entire wet season. In practice, the hydrological status of a particular area is usually evaluated using indirect indicators. Some of the indicators that are commonly used to identify wetland hydrology include biotic crusts and oxidized rhizospheres around roots. The Arid West Supplement gives thorough descriptions of numerous federally-recognized indicators of wetland hydrology.

FIELD METHODS

LSA soil scientist Chip Bouril and biologist Clint Kellner investigated the site on 18 June 2013. The last significant rainfall had occurred in April.

Wetland boundaries and sample point locations were mapped using a global position system (GPS) receiver with sub-meter accuracy. Wetland boundaries were determined by following a combination of the limits of hydrophytic vegetation, the limits of observed wetland hydrology, topographic breaks, and interpretation of aerial photography.

LSA established 9 sample points on the project site. Their locations are shown on Figure 3.

OBSERVATIONS

Potential jurisdictional features as identified by LSA are mapped on Figure 3 and include two drainages that supported hydrophytic plant species. Most reaches of both drainages contained flowing water during the field investigation. Both drainages receive upslope stormwater and landscape irrigation runoff collected by underground storm drains in the Glenbrook Lane and Stratton Court neighborhoods to the east of the site. The middle reach of each drainage flows through a culvert.

North Drainage

The upper reach of the north drainage (mapped as ND-1) is a wide swale vegetated with Himalayan blackberry and cattails at its upper end, spreading rush and nut sedge in its center, and, cattails closer to the culvert inlet. The potential jurisdictional edges of this reach were mapped to the outer limit of hydrophytic vegetation at the edges of the swale. The lower reach of the north drainage (mapped as ND-3) is a narrow swale with hydrophytic vegetation immediately downstream of the culvert outlet, next a wide patch of nut sedge and Italian rye without a defined swale or a single water flow path (see Sample Points 1-3), and then a narrower swale through a dense patch of Himalayan blackberry

leading to the downstream property boundary. Sample Point 1 shows the jurisdictional wetland characteristics in that section of reach ND-3. ND-3 was also mapped to the limit of hydrophytic vegetation species. All observable sections of ND-1 and ND-3 contained flowing water during the 18 June site investigation. ND-1 and ND-3 are delineated as wetlands. The culvert, ND-2, is delineated as an other water of the United States.

ND-1 has a potential jurisdictional area of 1,680 sq. ft. (0.039 acre) and length of approximately 80 feet. ND-2, the culvert, has a potential jurisdictional area of 105 sq. ft. (0.002 acre) and length of approximately 105 feet. ND-3 has a potential jurisdictional area of 500 sq. ft (0.011 acre) and length of approximately 75 feet. The North Drainage has a total potential jurisdictional area of 0.052 acre and length of 260 feet.

South Drainage

The upper reach of the south drainage (mapped as SD-1) is a swale vegetated with hydrophytic grasses, sedges and some cattails, with a dense patch of cattails near the culvert inlet. A narrow, vertical cut-bank channel within the swale also runs most of the length of SD-1. The swale's northeastern limit of jurisdiction is mostly the edge of hydrophytic vegetation, while the limit of jurisdiction along the feature's southwestern edge is a combination of the edge of the cut-bank channel (Ordinary High Water Mark) and the outer edge of hydrophytic vegetation. The presence of hydrophytic vegetation outside the channel suggests surfacing of groundwater in this reach. SD-1 is mapped as a wetland because of the hydrophytic vegetation present even within the channel.

The reach immediately downstream of the culvert is a varying width swale (mapped as SD-3) predominantly vegetated with nut sedge and velvet grass. Below this, the drainage passes under the tree canopy in an approximately 3-foot wide non-wetland channel (SD-4). Reach SD-1 and SD-3 are delineated as wetlands. The culvert, ND-2 and SD-2 and reach SD-4 are delineated as other waters of the United States.

SD-1 has a potential jurisdictional area of 780 sq. ft. (0.018 acre) and length of approximately 120 feet. SD-2, the culvert, has a potential jurisdictional area of 95 sq. ft. (0.002 acre) and length of approximately 95 feet. SD-3 has a potential jurisdictional area of 690 sq. ft. (0.016 acre) and length of approximately 80 feet. SD-4 has a potential jurisdictional area of 240 sq. ft. (0.006 acre) and length of approximately 40 feet. The South Drainage has a total potential jurisdictional area of 0.042 acre and length of 335 feet.

Other Observations

Sample Point 5 was placed in a level area on the hill slope which supported a vegetation type dominated by green grass (an indicator of moist conditions at this time of year). The only dominant plant species is Bermuda grass (*Cynodon dactylon*), with a FACU wetland indicator status; therefore failing to meet hydrophytic vegetation criteria. Although the soil was damp during the field investigation, no hydric soil or wetland hydrology indicators were observed.

Sample Point 6 was placed in an approximately two-foot by five-foot tire rut basin within the graded roadway that is predominantly vegetated with Italian rye and has mud cracks as evidence of seasonal ponding. The vegetation meets jurisdictional hydrophytic plant criteria and the mud cracks meet

jurisdictional wetland hydrology criteria. The top one inch of soil shows likely redoximorphic oxidized iron staining on platy ped faces, but the limited depth of the staining does not meet criterion F8 or any of the other listed hydric soil indicators. Given that this location has artificially compacted soil and very marginal wetland characteristics, the shallow iron staining is interpreted as not meeting jurisdictional hydric soil criteria. Sample Point 6 and this small basin are therefore determined to be non-jurisdictional.

Other locations on the site are vegetated with non-hydrophytic species and did not display any wetland characteristics.

No other evidence of potential waters of the United States was observed on the site.

CONCLUSIONS

Potential Clean Water Act Section 404 jurisdictional features identified on the D Street Project Site consist of 0.084-acre of seasonal wetland swales and 0.010-acre of non-wetland Waters of the United States, for a total jurisdictional area of 0.094 acre.

Potential jurisdictional features, project site boundaries, and sample point locations are mapped on Figure 3, which is attached.

The findings and conclusions presented in this report, including the location and extent of other waters subject to regulatory jurisdiction, represent the professional opinion of LSA. These findings and conclusions should be considered preliminary until verified by the Corps.

Please contact me or Clint Kellner at (510) 236-6810 to schedule a verification visit.

Sincerely,

LSA ASSOCIATES, INC.

CHIP BOURN

Chip Bouril Wetland Scientist

- Attachments: Figure 1: Regional Location Figure 2: Project Location Figure 3: Delineation Map Data Sheets 1 through 9
- cc: Hardy Gill, Shaw Group LP, PO Box 2622, Sumas, WA 98295 Brian Dorward and Jeff Moore, Greenwood & Moore, Inc., 3111 Castro Valley Blvd., Suite 200, Castro Valley, CA 94546



0 0.5 1 MILES SOURCE: Esri StreetMap North America (2012). D Street Projest. Alameda County, California Regional Location

I:\SHG1301\GIS\Maps\Figure1_Regional Location.mxd (8/12/2013)





E Street Projest Alameda County, California Site Location

SOURCE: USGS 7.5-minute Topo Quad - Hayward, Calif. (1980). I:\SHG1301\GIS\Maps\Figure2_Site Location.mxd (8/12/2013)



I:\SHG1301\GIS\Maps\Delineation\Figure3_Potential Waters of the US.mxd (8/12/2013)

WETLAND DETERMINATIO	NDATA FORM — Ario	1 West Region
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Project Site: D Street Properties	City/Coun	ty: Hayward Alan	neda	Sampling Date:	18 June 2013
Applicant/Owner.			State: CA	Sampling Point:	
Investigator(s): C. Bouril		Section,	Township, Range:	Unsectioned, T3S, R2	!W
Landform (hillslope, terrace, etc.):					
Subregion (I.RR): LRR C					
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typ					
Are Vegetation Soil or Hydro					
Are Vegetation Soil or Hydro				answers in Remarks.)	
SUMMARY OF FINDINGS — Attach site			ransects, import	ant features, etc.	
Hydrophytic Vegetation Present? Yes	XNo	<u>-</u>	Is the Sampled	Area	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No No		within a Wetla	nd? Ves 📈	No »
Remarks:	N,			, 5	
IN cetter	NNEL	58-2	SRI	+2 38-3	
VEGETATION					
Tree Stratum (Plot size:)		Dominant Indicator Species? Status	Dominance Tes	t worksheet:	
		Species. Status	Number of Dom	inant Species	2
2.			- That Are OBL, I	FACW, or FAC:	(A)
3.		+	Total Number of		Z
4.			Species Across	All Sirata:	(B)
	Total Cover:	<u> </u>	 Percent of Domi That Are OB1. 	inant Species FACW, or FAC:	(On (A/B)
Sapling/Shrub Stratum (Plot size:					
1.			Prevalence Ind	ex worksheet:	
2			Total % Cover of	of:	Multiply by:
3.			OBL species	<u> </u>	xi =
4.			FACW species		
5.			FACU species		x 4 =
	Total Cover:		UPL species Column Totals:		x 5 = (A)(B)
Herb Stratum (Plot size.)					
FESTURA PERENNI		X FOC	Hydronhytic V	e Index = B/A =	
- CTICEUS ERRUN	0571 20	X For	4		
3. HEZWINITHOTHER ER		For			
+ AVEN'S SP.		UPC		al Adaptations I (Provi	de supporting data in
5.				r on a separate sheet) Hydrophytic Vegetation	n ⁱ (Explain)
6.			Indicators of h	ydric soil and wetland h	nutralagy must by
7.				disturbed or problemati	
8.					
Woody Vine Stratum (Plot size:	Total Cover: 97	-	Hydrophytic		
1.	/	1	Vegetation		
2.			Present?	Ves	No
	Total Cover:		-1		
% Bare Ground in Herb Stratum	% Cover of Biotic Crust		<u> </u>		
- SSOUTHERS.					
					۰ I

SOIL				S	ampling Point:		
Profile Description: (Describe to the depth	needed to document the i	ndicator or confirm t	he absence of indi	cators.)			
Depth Matrix		Redox Features					
(inches) Color (moist) %	Color (moist)	% Туре	Loc ²	<u>Texture</u>	Remarks		
2-6 -217772	+ 0 ///			<u>L-cu</u>	FILC		
107184/3	104P4/3-	3 c?		·····			
					<u> </u>		
6-12 10TR3/2_	2514/1-	8 D		· (<u>\</u>		
· · · · · · · · · · · · · · · · · · ·	104R-4/3 -	10 <u>C</u>					
					·		
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Cove	ered or Coated Sand G	rains. ² Location	: PL=Pore Lining, M=	Matrix.		
Hydric Soil Indicators: (Applicable to all I	.RRs, unless otherwise no	ted.)		Indicators for Pro	blematic Hydric Soils ³ :		
Histosol (Al)	San	ndy Redox (S5)		1 cm Muck (a			
Histic Epipedon (A2)		ipped Matrix (S6)		2 cm Muck (/	AIO) (LRR B)		
Black Histic (A3)		my Mucky Mineral (H		Reduced Ven			
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)		uny Gleyed Matrix F2 pleted Matrix (F3))	Red Parent M	aterial (TF2) n in Remarks)		
I cm Muck (A9) (LRR D)		dox Dark Surface (F6)			in in itematica j		
Depleted Below Dark Surface (All)		pleted Dark Surface (F	7)				
Thick Dark Surface (A12)		dox Depressions (F8)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless		
Sandy Mucky Mineral (SI)	Ver	mal Pools (F9)		disturbed or proble			
Sandy Gleyed Matrix (S4)							
Restrictive Layer (if present):							
Туре:							
Depth (inches):	•	llydr	ic Soil Present?	Yes X	No		
Remarks:							
HYDROLOGY		•					
Wetland Hydrology Indicators:				Secondary Indicate	ors (2 or more required)		
Primary Indicators (any one indicator is suffi							
Surface Water (Al) High Water Table (A2)	Salt Crus Biotic Cr	st (BTT) rust (B12)			rks (Bl) (Riverine) Deposits (B2) (Riverine)		
Saturation (A3)		Invertebrates (B13)			osits (B3) (Riverine)		
Water Marks (B1) (Nonriverine)		en Sulfide Odor (Cl)			Patterns (B10)		
Sediment Deposits (B2) (Nonriverin		I Rhizospheres along I	-		n Water Table (C2)		
Drift Deposits (B3) (Nonriverine)		e of Reduced from (C4)			Burrows (C8)		
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery		ron Reduction in Plow ick Surface(C7)	ed Soils (CS)	designed and the second se	Visible on Aerial Imagery (C quitard (D3)		
Water-Stained Leaves (B9)		ixplain in Remarks)			ral Test (D5)		
E.H.Ob.							
Field Observations:	Na Darih (i						
Surface Water Present? Yes X		nches):					
Water Table Present? Yes	No Depth (i				L		
Saturation Present? Yes (includes capillary fringe)	No Depth (i	nches): $0 - 10$	Wetland Hydrolo	gy Present? Yes	<u> </u>		
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos,	previous inspections),	if available:	······································			
<u> </u>							
Remarks.							

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Project Site: D Street Properties	City/Count	ıy: <u>Hayı</u>	ward/Alame	eda	Sampling Date:	18 June 2013
Applicant/Owner:		·		State: CA	Sampling Point:	_ Z
Investigator(s): C. Bouril			Section, Te	ownship, Range:	Unsectioned, T3S, R	
Landform (hillslope, terrace, etc.):				e, convex, none):		Stope (%): 8
Subregion (LRR): LRR C L	at:			Long:		Datum:
Soil Map Unit Name:						
Are climatic/ hydrologic conditions on the site typical for this tim						
Are Vegetation Soil or Hydrology	Significa	ntly disturbe	ed? Are	"Normal Circumst	ances" present? Yes	No
Are Vegetation Soil or Hydrology	Naturally	problemati	c? (If no	eeded, explain any	answers in Remarks.)	
• SUMMARY OF FINDINGS — Attach site map showin	g samplin	g point loc	cations, tr	ansects. import	ant features, etc.	
Hydric Soil Present? Yes No	X	- -		Is the Sampled within a Wetla	l Area ind? Yes	No
Remarks:						
•						
VEGETATION						
Tree Stratum (Plot size:)		Dominant Species?		Dominance Te	at worksheet;	
1.				Number of Don That Are OBI	ninant Species FACW, or FAC:	\bigcirc (1)
2.						(A)
3.				Total Number o Species Across		3 (B)
4.						
Total Cover Sapling/Shrub Stratum (Plot size:)	<u> </u>	-		Percent of Dom That Are OBL,	FACW, or FAC:	(A/B)
1				Prevalence Ind	lex worksheet:	
2.				Total % Cover	<u>of:</u>	Multiply by:
3				OBL species		x [=
4.				FACW species		x 2 =
5				FAC species FACU species		
Total Cover	:	_		UPL species Column Totals:		x 5 = (A)(B)
Herb Stratum (Plot size:)				1		
1 AVERIA SP.	40	X	UPL		ce Index = B/A = egetation Indicators:	23
2 BROWNS DIANDRUS	20	X	UPC	-		
3 FESTUCA PERENNIS	10		FAC	 — Dominance — Prevalence I 		
1. RAPTONUS SATIVA	30	X	UPC	🚽 — Morphologi	cal Adaptations1 (Prov r on a separate sheet)	ide supporting data in
5					r on a separate sneet) Hydrophytic Vegetatic	on ¹ (Explain)
6				indicators of b	ydric soil and wetland	hydrology must be
7		ļ			disturbed or problemat	
8			<u> </u>	4		
Total Cover Woody Vine Stratum (Plot size:)	: 100	2		Hydrophytic		
		1	1	Vegetation Present?	Yes	\mathbf{x}_{0} \mathbf{x}_{0}
2.					103	, iu <u>(</u>
Total Cover % Bare Ground in Herb Stratum % Cover of Bi						
Remarks:						

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SOIL		Sampling Point:				
Profile Description: (Describe to the depth needed to a	locument the indicator or confirm the absence of inc	licators.)				
DepthMatrix	Redox Features					
(inches) Color (moist) % Color (moist) % Type ⁴ Loc ²	Texture Remarks				
9-6 10TR4/295 -		L				
incipality e						
Type: C=Concentration, D=Depletion, RM=Reduced M	latrix, CS=Covered or Coated Sand Grains. ² Location	on: PL=Pore Lining, M=Matrix.				
lydric Soil Indicators: (Applicable to all LRRs, unles	s otherwise noted.)	Indicators for Problematic Hydric Soils ³ :				
Histosol (Al)	Sandy Redox (55)	1 cm Muck (A9) (LRR C)				
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (AIO) (LRR B)				
Black Histic (A3)						
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix F2)	Reduced Vertic (F18) Red Parent Material (TF2)				
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)				
I cm Muck (A9) (LRR D)	Redox Dark Surface (F6)					
Depleted Below Dark Surface (All)	Depleted Dark Surface (F7)					
Thick Dark Surface (A12)	Redox Depressions (18)	³ Indicators of hydrophytic vegetation and				
Sandy Mucky Mineral (SI)	Vemal Pools (F9)	wetland hydrology must be present, unless disturbed or problematic.				
Sandy Gleyed Matrix (S4)		distance of problematic.				
Restrictive Layer (if present):						
Туре:						
Depth (inches):	Hydric Soil Present?	Yes No				
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)				
Primary Indicators (any one indicator is sufficient)						
Surface Water (Al)	Salt Crust (B11)	Water Marks (BI) (Riverine)				
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)				
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)				
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (Cl)	Drainage Patterns (B10)				
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)					
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Craytish Burrows (C8)				
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (CS)	Saturation Visible on Aerial Imagery (C				
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)				
Field Observations:						
Surface Water Present? Yes No	C Depth (inches):					
Water Table Present? Yes No 🗴	Depth (inches):					
	·	ogy Present? Yes No 🗙				
Saturation Present? Yes No (includes capillary fringe)	Depth (inches) Wetland Hydrol	ogy Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well	aerial photos, previous inspections), if available:					
Remarks: S	NI DRY					
16/18/09 (C. Documents and Settings ChipB Desktop Wetl	Determination-AridWest DataForm Version 2.0 doc)					

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Project Site: D Street Properties	City/Count	y: <u>Hay</u>	ward/Alame	da Sampling Date: 18 June 2013
Applicant/Owner:				State: CA Sampling Point: 3
Investigator(s): C. Bouril			Section, To	ownship, Range: Unsectioned, T3S, R2W
Landform (hillslope, terrace, etc.):				
Subregion (LRR): LRR C La	ı:			Long: Datum:
Soil Map Unit Name:				NWI elassification:
Are climatic / hydrologic conditions on the site typical for this time	e of year?	Yes	N	o (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology	Significan	ntly disturbe	:d? Are "	Normal Circumstances" present? Yes No
Are Vegetation Soil or Hydrology	Naturally	problemati	c? (lfne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing			ations. tra	ansects, important features, etc.
Hydric Soil Present? Yes No	X X X			Is the Sampled Area within a Wetland? Yes No
Remarks:				
VEGETATION	_			
Tree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet:
	<u>/acover</u>			Number of Dominant Species
2.				That Are OBL, FACW, or FAC: (A)
3.				Total Number of Dominant 4
4.	1			Species Across All Strata: (B)
Total Cover:		1		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling:Shrub Stratum (Plot size:)		<u>.</u>		
1				Prevalence Index worksheet:
2		ļ		Total % Cover of: Multiply by:
3		ļ		OBL species x1 =
4		ļ		FACW species x 2 = FAC species x 3 =
5.				FACU species x 4 =
Total Cover:		-		UPL species x 5 = Column Totals: (A)(B)
Herb Stratum (Plot size:) 1. A VEALA CP	35		UPL	Prevalence Index = $B/A = 23$
	20	X	<u> </u>	Hydrophytic Vegetation Indicators:
2 FESTUCA <u>ARUNDINACEA</u> 3 BROWNS DISTUDRUS	20	X	FOCU UPL	- Dominance Test is >50%
1. RAPHANUS SATIVA	25	X	UPL	Prevalence Index is $\leq 0^{\circ}$
	101		1010	— Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
-6.				Problematic Hydrophytic Vegetation ¹ (Explain)
		1	<u> </u>	Indicators of hydric soil and wetland hydrology must be
7.		<u> </u>		present, unless disturbed or problematic.
8. Total Cover:		1	<u> </u>	-
Woody Vine Stratum (Plot size:)		-	_	Hydrophytic
1.				Vegetation Present? Yes <u>No X</u> .
2.	<u> </u>	<u> </u>	<u> </u>	
Total Cover: % Bare Ground in Herb Stratum % Cover of Bio		-		
Remarks:				1

S

SOIL					Sampling Point:
Profile Description: (Describe to the depth no	eded to document the in	ndicator or confirm	the absence of indi	cators.)	
Depth Matrix		Redox Features			
(inches) Color (moist) %	Color (moist)	Type	Loc ²	Texture	Remarks
0-6 10TR4/2					
6-10 10-184/2 97	·····				
104R2/1_3				~	MIXED FILL
				(
			·		
			•		
Trade C=Consumption D=Duplation PM=P				Di - Dava Li-	
¹ Type: C=Concentration, D=Depletion, RM=R		·	Location		ing, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR)					for Problematic Hydric Soils ³ :
Histosol (Al)		dy Redox (S5)			Muck (A9) (LRR C)
Histic Epipedon (A2)		pped Matrix (S6) my Mucky Mineral (Eb		Muck (AlO) (LRR B)
Black Histic (A3) Hydrogen Sulfide (A4)	·······	amy Mucky Mineral (amy Gleyed Matrix F			ed Vertic (F18) Parent Material (TF2)
Stratified Layers (A5) (LRR C)		oleted Matrix (F3)	- 1		(Explain in Remarks)
I cm Muck (A9) (LRR D)		lox Dark Surface (F6)		
Depleted Below Dark Surface (All)		oleted Dark Surface (
Thick Dark Surface (A12)	Red	lox Depressions (F8)			of hydrophytic vegetation and
Sandy Mucky Mineral (SI)	Ver	nal Pools (F9)			drology must be present, unless r problematic.
Sandy Gleyed Matrix (S4)				distance o	i problematic.
Restrictive Layer (if present):					
Туре:					
Depth (inches):		1	ric Soil Present?	Ves	No X
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary	Indicators (2 or more required)
Primary Indicators (any one indicator is sufficie	. <u>nt)</u>				·
Surface Water (Al)	Salt Crus	st (B11)		,W	ater Marks (BI) (Riverine)
High Water Table (A2)	Biotic Cr	rust (B12)			diment Deposits (B2) (Riverine)
Saturation (A3)	Aquatic	Invertebrates (B13)		D	ifi Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)		n Sulfide Odor (CI)			ainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine)		I Rhizospheres along			y-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)		of Reduced Iron (C4			ayfish Burrows (C8)
Surface Soil Cracks (B6)		ron Reduction in Ploy	wed Soils (CS)		turation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B Water-Stained Leaves (B9)		ck Surface (C7) xplain in Remarks)			allow Aquitard (D3) AC-Neutral Test (D5)
	Ond (2	Aphanteni (Centarks)		···	
Field Observations:	-				
Surface Water Present? Yes N	so <u>X</u> Depth (in	nches):			
Water Table Present? Yes N	so 🔨 Depth (ii	nches):			
Saturation Present? Yes	io 🗴 Depth (ii	nches):	Wetland Hydrolo	gy Present?	Yes No X
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, j	previous inspections)	, if available:		
Remarks:	MAGT	to SFC			
			,		
1					

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Project Site: D Street Properties	City/Count	y: <u>Hay</u> v	ward/Alame	da	_ Sampling Date:	18 June 2013	
Applicant/Owner:							4
Investigator(s): C. Bouril					Unsectioned, T3S, R		•
Landform (hillslope, terrace, etc.):			ief (concave	e, convex, none):		Slope (%):	5
Subregion (LRR): LRR C Lat							
Soil Map Unit Name:							
Are climatic / hydrologic conditions on the site typical for this time							
Are Vegetation Soil or Hydrology	Significar	ntly disturbe	d? Are "	Normal Circumstar	ices" present? Yes	Ni	1
Are Vegetation Soil or Hydrology							
SUMMARY OF FINDINGS — Attach site map showing							
Hydrophytic Vegetation Present? Yes No	X			Is the Sampled #	\rea		
Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	X			within a Wetlan	d? Yes	<u> </u>	
Remarks: N		1 04	ω <u>υ</u> γ,	5			
(-	SIM		×	(
		· La	-	58-4			
VEGETATION							
Tree Stratum (Plot size:)	Absolute % Cover			Dominance Test	worksheet:		
				Number of Domir	ant Species	\circ	
2.				That Are OBL, FA	ACW, or FAC:	0	(A)
3.				Total Number of I		2	
4.				Species Across Al	II Strata:	<u> </u>	(8)
Total Cover:			I	Percent of Domin That Are OBL, F		-0-	(A/B)
Sapling/Shrub Stratum (Plot size:)		-					(ACD)
1.				Prevalence Indev	worksheet:		
2.				Total % Cover of	·	Multiply by:	
3.				OBL species		x! =	
4.				FACW species FAC species		x 2 =	·····
5.				FACU species	<u> </u>	x 3 =	
Total Cover:		_		UPL species Column Totals:		x 5 =	(B)
Herb Stratum (Plot size:)	1					73	
1. FESTUCA & RUNDINACEA	1.0		FACU	Prevalence	getation Indicators:	+	<u> </u>
2 AVENX SP	45		UPL	-			
3 BROWUS DIANDRUS	20	<u>⊢</u> Χ	UPC	Dominance Te Prevalence Inc			
+ HERLUIXCHAOTHERS ECHIOIDES	1		Facu		l Adaptations I (Provi on a separate sheet)	de supporting dat	ain
5. HOLCUS LANATUS	10	<u> </u>	FAC	- Problematic H	ydrophytic Vegetatio	m [†] (Explain)	
· FESTICA PERENNIS	10	<u> </u>	FOC	I Indicators of hyd	tric soil and wetland l	hydrology must be	
7.	-		<u> </u>		sturbed or problemati		
8.							
Total Cover: Woody Vine Stratum (Plot size:)		-		Hydrophytic			
	1	1	T	Vegetation	Y'es	× X	[
2.		1		Present?	1 es	<u>, No</u> ,	
Total Cover:		-	- -	1			1
% Bare Ground in Herb Stratum % Cover of Bio Remarks:	tic Crust						

SOIL		Sampling Point:
Profile Description: (Describe to the depth n	eeded to document the indicator or confirm the absence of ind	licators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type' Loc'	Texture Remarks
0-4 10TR4/2_		L PUSSTIC SHEET
4-10 30		GRL ASPH,
107R4/3 70		EU FIL
⁺ Type: C=Concentration, D=Depletion, RM=R	teduced Matrix, CS=Covered or Coated Sand Grains. 2 Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR	Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils3:
Histosol (Al)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (AlO) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (FI)	Reduced Veric (F18)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)	Loamy Gleyed Matrix F2) Depleted Matrix (F3)	Red Parent Material (TF2) Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (All)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless
Sandy Mucky Mineral (SI) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	disturbed or problematic.
Restrictive Layer (if present):		
Туре:		
Depth (inches):	Hydric Soil Present?	Yes No
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suffici	ent)	
Surface Water (Al)	Salt Crust (B11)	Water Marks (BI) (Riverine)
High Water Table (A2) Saturation (A3)	Biotic Crust (B12) Aquatic Invertebrates (B13)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (Cl)	Drainage Patterns (B10)
Sediment Deposits (B2) (Nouriverine)		Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Craytish Burrows (C8)
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (1	Recent fron Reduction in Plowed Soils (CS) B7) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Field Observations:	No. / Danth (inclusiv)	
Surface Water Present? Yes		
	No (/ Depth (inches):	
Saturation Present? Yes (includes capillary fringe)	No Depth (inches) Wetland Hydrole	ogy Present? Yes No
	oring well, aerial photos, previous inspections), if available:	
Remarks: So()	_ PRY	

N.

Project Site: D Street Properties	City/Count	y: <u>Hay</u>	ward/Alame	da Sampling Date: <u>18 June 2013</u>
Applicant/Owner:				State: CA Sampling Point:
Investigator(s): C. Bouril			Section. To	ownship, Range: Unsectioned, T3S, R2W
Landform (hillslope, terrace, etc.): FLAT LOCATION ON				
Subregion (LRR): LRR C L	ut:			Long: Datum:
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for this tim				
				"Normal Circumstances" present? Yes No
Are Vegetation Soil or Hydrology	_			
SUMMARY OF FINDINGS — Attach site map showin	-			
	X			Is the Sampled Area
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	X	•		within a Wetland? Yes No
Remarks: GREEN, LEVEL SREA				/E
		、	_	×
	U	<u> </u>		ER-5
VEGETATION				
Tree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet:
		Species.	Jialds	Number of Dominant Species
2.		<u> </u>		That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
Total Cover:	_1	L		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum (Plot size:)		<u>-</u>		
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3.				OBL species x1 =
4.				FACW species x 2 = FAC species x 3 =
5.		<u> </u>		FACU species x 4 =
Total Cover.		_		UPL species x 5 = Column Totals: (A)
Herb Stratum (Plot size:)		1		
1 CYNODON DECTTUN	105		17AU	Prevalence Index = B/A = Z
2 ANGLASP.	2	<u> </u>	UT	
3 RUBUS BRILLENIACUS	35		FACU	— Dominance Test is >50% — Prevalence Index is ≤.0'
1. EARHARTA ERECTA?			UPL'	— Morphological Adaptations1 (Provide supporting data in Remarks of on a separate sheet)
5. MORRUPIUM JULGERE	3		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6				Indicators of hydric soil and wetland hydrology must be
7.				present, unless disturbed or problematic.
8.				
Total Cover Woody Vine Stratum (Plot size:)	190	<u>)</u>		Hydrophytic
Woody Vine Stratum (Plot size:)			1	Vegetation
2.				Present? Yes No
Total Cover	:			1
% Bare Ground in Herb Stratum % Cover of Bi Remarks:	otic Crust			
NCHAINS;				

SOIL						Sampling Point:	5
Profile Description: (Describe to	the depth needed to	a document the indicato	r or confirm	the absence of indi	cators.)		
Depth Matrix		Redox F	eatures				
(inches) Color (moist)		r (moist) %	Type	Loc ²	Texture	Remarks	
0-10 104R4/	3				<u>sl</u>	FILL	
, 	<u></u>		<u> </u>				
			_				
							· · · · · · · · · · · · · · · · · · ·
		<u></u>					
				-	<u> </u>		
¹ Type: C=Concentration, D=Depl	etion RM=Reduced	Matrix CS=Coverator	Coated Sanda	Grains ² Location	: PL=Pore Lining	. MaMatrix	
Hydric Soil Indicators: (Applica						Problematic Hydric S	alle ³ e
Histosol (Al)	ole to an LEERS, uni	Sandy Red	~ (55)			ick (A9) (LRR C)	00115 :
Histic Epipedon (A2)		Stripped M				ick (AIO) (LRR B)	
Black Histic (A3)			cky Mineral	(Fl)		Vertic (F18)	
Hydrogen Sultide (A4)			yed Matrix F	2)		ent Material (TF2)	
Stratified Layers (A5) (LR	RC)	Depleted N			Other (E	xplain in Remarks)	
I cm Muck (A9) (LRR D) Depleted Below Dark Surfi	ace (All)		k Surface (F6)ark Surface (
Thick Dark Surface (A12)	,		ressions (F8)			hydrophytic vegetation	
Sandy Mucky Mineral (SI)		Vernal Poo	ls (F9)		wetland hydro disturbed or p	logy must be present, u	nless
Sandy Gleyed Matrix (S4)					distanced of p.	iooicinatic.	
Restrictive Layer (if present):	·		1				
Depth (inches):			Hyd	ric Soil Present?	Yes	No	Х
		······································					
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Inc	licators (2 or more requ	ired)
Primary Indicators (any one indica	ttor is sufficient)	E-h C-mt (D11)			Matu	-) (
Surface Water (Al) High Water Table (A2)	-	Salt Crust (B11) Biotic Crust (B1				r Marks (Bl) (Riverine) nent Deposits (B2) (Riv	
Saturation (A3)		Aquatic Invertet				Deposits (B3) (Riverin	
Water Marks (B1) (Nonriv	erine)	Hydrogen Sulfic	le Odor (Cl)			age Patterns (B10)	
Sediment Deposits (B2) (N	-			Living Roots (C3)		Season Water Table (C2	:)
Drift Deposits (B3) (Nonri	verine) –	Presence of Red Recent Iron Red				fish Burrows (C8) ation Visible on Aerial	Imanum (Cu)
Surface Soil Cracks (B6) Inundation Visible on Aeri	al Imagery (B7)	Thin Muck Surf		web sons (C.S)		ow Aquitard (D3)	imagery (C 7)
Water-Stained Leaves (B9		Other (Explain i				-Neutral Test (D5)	
Field Observations:						· · · · · · · · · · · · · · · · · · ·	
	No	Depth (inches):					
Water Table Present? Yes		X Depth (inches).			n	A1	X
Saturation Present? Yes (includes capillary fringe)	No	Depth (inches).		Wetland Hydrolo	gy Present?	Yes No	<u> </u>
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, previou	s inspections), if available:			
Remarks: 50	ILNDE	wp	•				
		``					

Project Site: D Street Properties	City/Count	y: <u>Hay</u>	ward 'Alame	daSampling Date: 18 June 2013
Applicant/Owner:				State: <u>CA</u> Sampling Point:
Investigator(s): C. Bouril			Section, To	ownship. Range: Unsectioned, T3S, R2W
Landform (hillslope, terrace, etc.):	A4_	Local rel	ief (concave	e, convex, none): Slope (%):
Subregion (LRR): LRRC Lau	:			Long: Datum:
				NWI classification:
Are climatic / hydrologic conditions on the site typical for this time	of year?	Yes	N	o (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology	Significar	tly disturb	ed? Are "	"Normal Circumstances" present? Yes No
Are Vegetation Soil or Hydrology	Naturally	problemati	e? (lf ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing		g point log	ations, tra	ansects, important features, etc.
	X			ls the Sampled Area within a Wetland? Yes No
Remarks: TIRE RUT RUDDLE IN ROLDWEY S	l	- 10	ZD	I X
			,	
VEGETATION				
	Absolute <u>% Cover</u>	Dominant Species?		Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.				
3.				Total Number of Dominant Species Across All Strata:(B)
4.				
Total Cover: Sapling:Shrub Stratum (Plot size:)		-		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
· 1.				Prevalence Index worksheet:
2.	ĺ			Total % Cover of: Multiply by:
3.				OBL species x1 =
4.				FACW species x 2 =
5.				FAC species
Total Cover:		_		UPL species $x 5 = $
Herb Stratum (Plot size:)	[- 		
1. FESTUCA PERENNIS	70	X	Fac	Prevalence Index = B/A = 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
2 AVALASP.	5		UPL	
3 BROWUS HORDEACEUS	53		Facu	— Dominance Test is >50% — Prevalence Index is ≤3.0 ¹
+ PLANTAGO CORONOPUS'	-3		FACU	 Morphological Adaptations1 (Provide supporting data in Remarks of on a separate sheet)
5. HERMINTHOTHERA ECHIOIDES	2		ESCU	- Problematic Hydrophytic Vegetation ¹ (Explain)
6.	<u> </u>			Indicators of hydric soil and wetland hydrology must be
7.				present, unless disturbed or problematic
8.	1			-
Yoody Vine Stratum (Plot size:)	-85	-		Hydrophytic
1,				Vegetation Present? Ves X No
2.				
Total Cover:		_		
% Bare Ground in Herb Stratum % Cover of Biot Remarks:	ne Crust		<u> </u>	l

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SOIL			Sampling Point:6		
Profile Description: (Describe to the depth needed	to document the indicator or confirm	the absence of indicators.)			
Depth Matrix	Redox Features				
inches) Color (moist) % Co	lor (moist) % Type ¹	Loc ² Texture			
	<u> </u>		L		
		. .			
<u>104R4/350</u>		- <u></u>			
Type: C=Concentration, D=Depletion, RM=Reduce	d Matrix, CS=Covered or Coated Sand (Grains. ² Location: PL=Por	e Lining, M=Matrix.		
lydric Soil Indicators: (Applicable to all LRRs, u	nless otherwise noted.)	Indica	tors for Problematic Hydric Soils ³ :		
Histosol (Al)	Sandy Redox (\$5)		cm Muck (A9) (LRR C)		
Histic Epipedon (A2)	Stripped Matrix (S6)		cm Muck (AIO) (LRR B)		
Black Histic (A3)	Loamy Mucky Mineral (F1) F	Reduced Vertic (F18)		
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix F		ted 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 (All)	Depleted Dark Surface (
Thick Dark Surface (A12)	Redox Depressions (F8)		ators of hydrophytic vegetation and divergence of hydrology must be present, unless		
Sandy Mucky Mineral (SI)	Vernal Pools (F9)		ed or problematic.		
Sandy Gleyed Matrix (S4)					
Restrictive Layer (if present):	·····		The B		
~					
Depth (inches):		ric Soil Present? Yes	No		
Remarks: x QOx P (m, T Q A	SK 16 1 1 2 P	Males Con			
			PACTED SUBFACE		
ONE INCLI. I	DESN'T WEEF8C	ritarid. Rep	on only in six 2 pudde		
HYDROLOGY					
Wetland Hydrology Indicators:		Secon	dary Indicators (2 or more required)		
Primary Indicators (any one indicator is sufficient)					
Surface Water (Al)	Salt Crust (B11)		Water Marks (Bl) (Rivering)		
High Water Table (A2)	Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)		
Saturation (A3)	Aquatic Invertebrates (B13)		Drift Deposits (B3) (Riverine)		
Water Marks (B1) (Nonriverine)		·	Drainage Patterns (B10)		
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (Cl) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)					
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C-		Crayfish Burrows (C8)		
X Surface Soil Cracks (B6)	Recent Iron Reduction in Ploy		Saturation Visible on Aerial Imagery (C9)		
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface(C7)		Shallow Aguitard (D3)		
Water-Stained Leaves (B9)	Other (Explain in Remarks)		FAC-Neutral Test (D5)		
Field Observations:			-		
Surface Water Present? Yes No	✓ Depth (inches):				
Water Table Present? Yes No	V Depth (inches):				
Saturation Present? Yes No	Depth (inches):	Wetland Hydrology Preset	11? Yes X No		
(includes capillary fringe)	isopan (menes).	or channel river onegy r reset			
Describe Recorded Data (stream gauge, monitoring	vell, aerial photos, previous inspections	, if available:			
Remarks:					
CRECKS	, and in sizz!	RUDULE			
_					
16 18 /04 // Decompose and Sources Charle Declary V		• •			

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Project Site: D Street Properties	City/Coum	y: <u>Hayv</u>	vard/Alame	da Sampling Date: 18 June 2013
Applicant/Owner:				State: <u>CA</u> Sampling Point:
Investigator(s): C. Bouril				ownship, Range: Unsectioned, T3S, R2W
Landform (hillslope, terrace, etc.):		Local reli	ef (concave	e, convex, none): Slope (%):(D
Subregion (LRR): LRR C Lat	:			Long: Datum:
Soil Map Unit Name:				NWI classification:
Are climatic / hydrologic conditions on the site typical for this time	of year?	Yes	N	o (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology	Significar	ntly disturbe	d? Are "	Normal Circumstances" present? Yes No
Are Vegetation Soil or Hydrology	Naturally	problematio	e? (1f ne	ceded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling	poi nt loc	ations, tra	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	X			Is the Sampled Area within a Wetland? Yes No
Remarks:				/ F
ω · ·		_	+ 50	27
CHENNE			2.1	
VEGETATION				
		Dominant		Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: (A)
2.				Total Number of Dominant
3.				Species Across All Strata: (B)
14.				Percent of Dominant Species
Total Cover: Sapling/Shrub Stratum (Plot size:)		•		That Are OBL, FACW, or I'AC: (A/B)
1.				Prevalence Index worksheet:
2.				Total % Cover of: <u>Multiply by:</u>
3.				OBL species x1 =
4.				FACW species $x = $
5.				FAC species x 3 = FACU species x 4 =
Total Cover:		_		UPL species $x 5 =$ Column Totals: (A)
Herb Stratum (Plot size:)		-		Prevalence Index = $B/A = 2$
1. FESTUR DRUNDINLACUE	82	X_	FBCU	
2 CYPERUS EBACROSTIS	10			Hydrophytic Vegetation Indicators:
3. VICLA SATIVA	5		FON	Dominance Test is >30% Prevalence Index is ≤3.0 ¹
1 HEZULINTHOTHER ETHIOIDE	E		Foru	- Morphological Adaptations I (Provide supporting data in
S. RUBUS ARMACIACUS	<u> </u>	 	Focu	Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must be
7.		<u> </u>	<u> </u>	present, unless disturbed or problematic.
8.		<u> </u>	<u> </u>	
Total Cover: Woody Vine Stratum (Plot size:)		-		Hydrophytic
				Vegetation
2.				Presem? Yes <u>No</u> .
Total Cover.		-	-]
% Bare Ground in Herb Stratum % Cover of Biot Remarks:	ic Crust	· ·		

· · --

SOIL						Sampling Point:
Profile Desc	ription: (Describe to the depth n	eeded to document the indicator	or confirm	the absence of indi	cators.)	
Depth	Matrix	Redox Fe				
(inches)	Color (moist) %	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
<u>9-1(</u>	10 RA/7 60				L/GRL	MILLEDFILL
	104R413 20				/ 0	
	101R3/2-10					
	<u>1011-</u> 46 -10					
	<u> </u>		<u> </u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
	<u> </u>		· · <u>·····</u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
				·		
′ Туре: С≭С	oncentration, D=Depletion, RM=F	Reduced Matrix, CS=Covered or C	oated Sand C	irains. ² Location	: PL=Pore Lining,	M=Matrix.
Hydric Soil	Indicators: (Applicable to all LF	lRs, unless otherwise noted.)			Indicators for F	roblematic Hydric Soils ³ :
Histo	sol (Al)	Sandy Redo	ux (S5)		1 cm Mucł	: (A9) (LRR C)
Histic	e Epipedon (A2)	Stripped Ma	atrix (S6)		2 cm Mucl	(AlO)(LRR B)
	(Histic (A3)		eky Mineral (1			enic (F18)
	ogen Sulfide (A4)		yed Matrix F2	2)		Material (TF2)
	fied Layers (A5) (LRR C) Muck (A9) (LRR D)	Depleted M	lainx (F3) « Surface (F6)		Other (Exp	lain in Remarks)
	eted Below Dark Surface (All)		ark Surface (10)			
	(Dark Surface (A12)		ressions (F8)	,	³ Indicators of hy	drophytic vegetation and
	y Mucky Mineral (SI)	Vernal Pool			wetland hydrolo	gy must be present, unless
	y Gleyed Matrix (S4)				disturbed or prol	blematic.
				·····		
Restrictive	Layer (if present):					
	Туре:		-			
Dept	h (inches):		- Hydr	ric Soil Present?	Yes	No
Remarks:			<u> </u>	A		
HYDROL	001	a <u>a na sa sa</u>	•			
	drology Indicators:	<u></u>			Secondary Indie	ators (2 or more required)
•	cators (any one indicator is suffici	ent)				alois (2 of more required)
	ice Water (Al)	Salt Crust (B11)			Water M	Marks (Bl) (Riverine)
	Water Table (A2)	Biotic Crust (B1)				nt Deposits (B2) (Riverine)
Satur	ation (A3)	Aquatic Inverteb	rates (B13)		Drift D	eposits (B3) (Riverine)
Wate	r Marks (B1) (Nonriverine)	Hydrogen Sulfid	e Odor (Cl)		Drainag	ge Patterns (B10)
	nent Deposits (B2) (Nouriverine)		• •	Living Roots (C3)		ason Water Table (C2)
	Deposits (B3) (Nonriverine)	Presence of Redu			·	h Burrows (C8)
	ice Soil Cracks (B6)	Recent Iron Red		ved Soils (CS)		ion Visible on Aerial Imagery (C
	dation Visible on Aerial Imagery (r-Stained Leaves (B9)	B7) Thin Muck Surfa Other (Explain in				v Aquitard (D3) eutral Test (D5)
Wate	(-Stained Ecaves (D7)	Outer (Explain in	i (Centariks)			
Field Obser	vations:					
Surface Wat	er Present? Yes	No <u>X</u> Depth (inches)				
Water Table	Present? Yes	No <u>X</u> Depth (inches):				
Saturation P	resent? Yes	No V Depth (inches):		Wetland Hydrolo	gy Present? Y	es No X
(includes ca	pillary fringe)			•	· · ·	
Describe Re	corded Data (stream gauge, monit	oring well, aerial photos, previous	(inspections)	, if available:		
Remarks:						

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WETLAND DETERM	MINATION DATA FORM	M — Arid West Region

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Project Site: D Street Properties	City/County: Hayward Alame	eda Sampling Date: 18 June 2013
Applicant/Owner:		
Investigator(s): C. Bouril	Section, Te	ownship, Range:Unsectioned, T3S, R2W
Landform (hillslope, terrace, etc.):		
		Long: Datum:
		NWI classification:
Are climatic / hydrologic conditions on the site typical for this t		
Are Vegetation Soil or Hydrology		
Are Vegetation Soil or Hydrology		
SUMMARY OF FINDINGS — Attach site map show		
Hydrophytic Vegetation Present? Yes N	<u> </u>	Is the Sampled Area
	o	within a Wetland? Yes No
Remarks:		E
	-111 11	1
C	AANNEL - , UT?	SP-8 111 = FARR
VEGETATION	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover Species? Status</u>	
1		Number of Dominant Species That Are OBL FACW, or FAC: (A)
2.		
3.		Total Number of Dominant (B)
4.		Percent of Dominant Species
Sapling/Shuth Stratum (Plot size:)	er:	That Are OBL, FACW, or FAC: (A/B)
1.		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x l =
4.		FACW species x 2 =
5.		FAC species x 3 = FACU species x 4 =
Total Cov	er:	UPL species x 5 =
Herb Stratum (Plot size:)		
1. FEXTUCA APJNDINACEA	90 X Bau	Prevalence Index = $B/A = 2$
2 RAPHANIOS SATIVA	Z UPL	Hydrophytic Vegetation Indicators:
3. ERODING CICUTORIUM	Z UP	- Dominance Test is >50%
+ BROWUS PLEADEUS	Z UPL	 — Prevalence Index is ≤0.0⁴ — Morphological Adaptations1 (Provide supporting data in
5. HELLEUNTHOTHER ESHICIDE	5 Z Face	Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation ¹ (Explain)
6.		
7.		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.		
Total Cov	er:	Hydrophytic
Woody Vine Stratum (Plot size:)		Vegetation
2.		Present? Yes <u>No .</u> .
Total Cov	er:	-
% Bare Ground in Herb Stratum % Cover of		
Remarks:		

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SOIL					Sampling Point:
Profile Description: (Describe to the dept	h needed to document the	e indicator or confir	m the absence of ind	icators.)	
Depth Matrix		Redox Features			
(inches) Color (moist) %	Color (moist)	% Type	Loc ²	Texture	Remarks
0-4 104R4/2_		······		Fil	
4-10 107P4/2	<u>51R3/4</u>	<u>s</u> <u>c</u>	PL,PE	<u> ((</u>	STREE NEEREY
			·		
<u></u>		······			
¹ Type: C=Concentration, D=Depletion, RN	- 1=Reduced Matrix, CS=Co	vered or Coated San	d Grains. ² Location	n: PL=Pore Lini	ng. M∞Matrix.
Hydric Soil Indicators: (Applicable to all					or Problematic Hydric Soils ³ :
Histosol (Al)		andy Redox (S5)			luck (A9) (LRR C)
Histic Epipedon (A2)		tripped Matrix (S6)			luck (AlO) (LRR B)
Black Histic (A3)	L	.oamy Mucky Minera	l (Fl)		ed Vertic (F18)
Hydrogen Sulfide (A4)		oamy Gleyed Matrix	F2)		rent Material (TF2)
Stratified Layers (A5) (LRR C) I cm Muck (A9) (LRR D)		Depleted Matrix (F3) Redox Dark Surface (F6)	Other (Explain in Remarks)
Depleted Below Dark Surface (All)		Depleted Dark Surface			
Thick Dark Surface (A12)	F	ledox Depressions (F	8)	¹ Indicators of	of hydrophytic vegetation and
Sandy Mucky Mineral (SI)	<u> </u>	ernal Pools (F9)			rology must be present, unless problematic.
Sandy Gleyed Matrix (S4)					
Restrictive Layer (if present):					
Туре:					
Depth (inches):			dric Soil Present?	Yes	X No
D. 1					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		- <u></u>		Secondary I	ndicators (2 or more required)
Primary Indicators (any one indicator is suf					
Surface Water (Al)		nist (B11)		<u> </u>	er Marks (Bl) (Riverine)
High Water Table (A2) Saturation (A3)	and the second design of the s	Crust (B12) ic Invertebrates (B13)		iment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)		gen Sulfide Odor (Cl			inage Patterns (B10)
Sediment Deposits (B2) (Nonriveri		ed Rhizospheres alo			-Season Water Table (C2)
Drift Deposits (B3) (Nouriverine)	Preser	ice of Reduced Iron (C4)	Сп	yfish Burrows (C8)
Surface Soil Cracks (B6)		t Iron Reduction in P	lowed Soils (CS)		aration Visible on Aerial Imagery (C
Inundation Visible on Aerial Image		luck Surface (C7)			llow Aquitard (D3)
Water-Stained Leaves (B9)	Other	(Explain in Remarks	ASG STCI	FA	C-Neutral Test (D5)
Field Observations:		7			
Surface Water Present? Yes	No X Depth	(inches):	_		
Water Table Present? Yes	No X Depth	(inches):			
Saturation Present? Yes	No X Depth	(inches):	Wetland Hydrole	gy Present?	Yes 🗙 No
(includes capillary fringe)					
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photo	s, previous inspection	is), if available:		
Remarks:					A
ivernarka.					1
					¥۲.
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06/18/09 (C. Documents and Settings/ChipB	Deskton Wetl Deterministion	-AridWest Duatorm	Version 2.6 docs		
and a second sec	www.migrarear.com.com.madion	······································			

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Project Site: D Street Properties						18 June 2013
Applicant/Owner:	··			State: CA	Sampling Point:	9
Investigator(s): C. Bouril					Unsectioned, T3S, R	2W
Landform (hillslope, terrace, etc.):		_ Local rel	ief (concav	e, convex, sone):		Slope (%): 8
Subregion (LRR): LRR C La	ıt:			Long:		Datum:
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for this tim	e of year?	Yes	<u> </u>	No	(If no, explain in Re	marks.)
Are Vegetation Soil or Hydrology	Significa	ntly disturb	ed? Are	"Normal Circumsta	inces" present? Yes	No
Are Vegetation Soil or Hydrology	Naturally	problemat	ic? (If n	eeded, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showin	g samplin	g point lo	cations. tr	ansects, importa	ant features. etc.	
Hydric Soil Present? Yes X No	· · · · · · · · · · · · · · · · · · ·	-		Is the Sampled within a Wetla		No
Remarks:						````
			14			
	\sim		_×_	8-9		
VEGETATION						
		Dominant		Dominance Tes	t worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?		Number of Dom	inant Species	
1. ·				That Are OBL, F	ACW, or FAC:	(A)
2.				Total Number of		2- (B)
3.				Species Across A	All Strata:	(B)
Total Cover:		1		 Percent of Domi That Are OBL 	nant Species FACW, or FAC:	50 (A/B)
Sapling/Shrub Stratum (Plot size:)	•	_		mat nic Obe, i		
1.				Prevalence Inde	ex worksheet:	
2.	ļ			Total % Cover o	<u>f:</u>	Multiply by:
3.				OBL species	······	x1 =
4				FACW species FAC species	<u> </u>	$\begin{array}{c} x 2 = 120 \\ x 3 = 120 \\ \end{array}$
5.			ļ	FACU species	- 35	x4= 140
Total Cover:		_		UPL species Column Totals:	100	x 5 = (A) - 270.(B)
Herb Stranum (Plot size:) 1. AGRESTIS STOLONUFER	T_{4}	X	FACE		e Index = B/A =	27
Quality and the second second	430	X	FOCU	1.	egetation Indicators:	
3. FESTURA BARNAULEA	5	$\uparrow \sim$	FECU	Dominance 1	ust is >50%	
4.			TRECO	- Prevalence Ir	idex is ≤.0 ¹	
5.			1		al Adaptations1 (Prov on a separate sheet)	ide supporting data in
6.		1	1	- Problematic	Hydrophytic Vegetatic	on ^t (Explain)
					dric soil and wetland	
7.		+	+	present, untess c	listurbed or problemat	<u>1C,</u>
8. Total Cover:	1.90)		-		
Woody Vine Stratum (Plot size:)				Hydrophytic	,	
1.				Vegetation Present?	Yes X	No
2.				-	L	
Total Cover % Bare Ground in Herb Stratum % Cover of Big						
Remarks: THE PENNISETUM APPE		ነተግቦል	DHGA	IC FRAIL	BAY AREA	OBGERATION
	ں رہ۔		eo cp			
		- 10.7 I				

SOIL	Sampling Point:					
Profile Description: (Describe to the depth needed to document the indicator or confirm the abse	nce of indicators.)					
Depth Matrix Redox Features						
(inches) Color (moist) % Color (moist) % Type Lo						
0-7 IOTR3/2 NORE OBSERVED	FSL SOIL SATURATION					
	END RUNNY					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	² Location: PL=Pore Lining, M=Matrix.					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :					
Histosol (Al) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)					
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (AlO) (LRR B)					
Black Histic (A3) Loamy Mucky Mineral (Fl) Hydrogen Sulfide (A4) Loamy Gleyed Matrix F2)	Reduced Venic (F18) Red Parent Material (TF2)					
Hydrogen Sulfide (A4) Loamy Gleyed Matrix F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)					
I cm Muck (A9) (LRR D) Redox Dark Surface (F6)						
Depleted Below Dark Surface (All) Depleted Dark Surface (F7)	31. It was after the first second of the					
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless					
Sandy Gleyed Matrix (S4)	disturbed or problematic.					
Restrictive Layer (if present):						
Туре:						
Depth (inches): Hydric Soil	Present? Yes <u>No</u>					
Remarks:						
SOIL PETERUCKIED HYDRIC BY S	ADATLOR AVORE-URELY					
CONTER DOUS SILLE WINTER						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)					
Primary Indicators (any one indicator is sufficient)						
Surface Water (Al) Salt Crust (B11)	Water Marks (Bl) (Riverine)					
High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine)						
Saturation (A3) Aquatic inverteorates (B13) Drit Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (Cl) Drainage Patterns (B10)						
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)						
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Craylish Burrows (C8)					
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soil Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)	s (CS) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)					
Water-Stained Leaves (B9) Other (Explain in Remarks)	FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes X No Z Depth (inches):						
Water Table Present? Yes X No O Depth (inches):						
Saturation Present? Yes X No O Depth (inches): Wetlan (includes capillary fringe)	nd Hydrology Present? Yes <u>X</u> No					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if avail	able:					
Remarks:						
Remarks: USETLE SEURCE SPREARS TO BE	e landschpe 'kunloff					
FROM THE UPSTREAM GLEAN						

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