PRELIMINARY ADVISORY ASSESSMENT WATERS OF THE UNITED STATES ANDERSON 53 SITE PETALUMA HILL ROAD (EAST SIDE) SONOMA COUNTY, CA

Prepared for:

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1.0 SUMMARY

The report presents the results of a preliminary advisory assessment concerning the possible presence of features subject to the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act at the approximately 53-acre site known as the Anderson 53 site (Site), located on the east side of Petaluma Hill Road just south of its intersection with Rohnert Park Expressway in Sonoma County, CA., and the east side of Petaluma Hill Road PHR) right-of-way between Copeland Creek crossing and the intersection of Rohnert Park Expressway with Petaluma Hill Road.

The Site is part of one parcel (APN: 047-132-038) with an addresses of 6626 Petaluma Hill Road. The Property consists primarily of upland habitat dominated by non-native grasses and forbs. Copeland Creek cuts diagonally across the Site from the northwest corner of the Site to the approximate mid-point along the southern border of the Site, then extends east to well beyond the southeastern corner of the Site.

The PHR right-of-way extends to the western fence line of agricultural fields to the east of PHR. The roadway is elevated along this approximately 0.25-mile stretch of PHR and the shoulder and base of the raised roadway berm consists of compacted gravel.

The field survey for the preliminary advisory assessment at the Site was conducted on June 2 and June 23, 2016. The presence and approximate boundaries of jurisdictional wetlands were determined using the routine on-site determination methodology as specified in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Version (Version 2.0)* (Arid West Manual). The wetland status of the plant encountered at each sample point during the field survey was determined using the *State of California 2016 Wetland Plant List*.

Approximately 0.568 acre, not including the Copeland Creek channel, were found to meet the U.S. Army Corps of Engineers (Corps) definition of waters of the U.S. Another approximately 0.81 acre consisted of a swale with marginal jurisdictional features and may not be subject to the Corps' jurisdiction. The area along the base of the eastern side of PHR between the entrance to the Anderson 53 Site and the intersection of Rohnert Park Expressway and PHR did not support any feature that met the technical definition of a jurisdictional wetlands, and except for a few isolated occurrences, there was not a defined bed and bank structure (lack of ordinary high water mark) along the base of the roadway.

2.0 INTRODUCTION

2.1 SITE LOCATION AND DESCRIPTION

The approximately 53-acre Site is located on the east side of Petaluma Hill Road just south of its intersection with Rohnert Park Expressway in Sonoma County, CA (Figure 1). The Site is a former agricultural field that was used primarily for grazing. The lands to the north, east and south of the Site are used for various agricultural uses, including vineyards, grazing, and plant nursery, and lands that are part of Sonoma State University occur to the west of the Site (Figure 2). The PHR right-of-way along the east side of the roadway extends to the fence line of the nearby agricultural fields east of the right-of-way.

2.2 PHYSICAL AND HYDROLOGIC CONDITIONS

2.2.1 Topography and Drainage

Copeland Creek has been straightened (realigned) and runs along the southern boundary in the southeast part of the Site and then crosses the site diagonally, in what appears to be its original, natural alignment, carrying water to culvert beneath Petaluma Hill Road near the northwest corner of the Site. It is deeply incised and the banks have been raised through the import and placement of fill to prevent flooding. A smaller tributary drainage, partly defined, partly undefined runs roughly parallel to the diagonal section of Copeland Creek then runs parallel with the northern boundary of the Site for approximately 750 feet to the west.

The elevation at the eastern end of the site is approximately 208 ft. above mean sea level (msl) and the elevation at the western end above the top of bank of Copeland Creek is approximately 173 ft. msl. The difference in elevation across the site is approximately 35 ft. Away from the slope of the small defined drainage that crosses the site, the slope ranges from 10 percent in a few very small areas to less than 0.5 percent.

There is no defined drainage structure along the base of the raised PHR roadway. Runoff from the roadway likely flows in a northward direction, and during high runoff events probably floods onto the adjacent agricultural fields. Approximately 0.09 miles north of the entrance to the Site there is a culvert that directs runoff flow at the base of the roadway berm and directs it in a northwesterly direction beneath PHR. These waters eventually flow to the large treatment swales in the parking lot at the Green Music Center and eventually into Hinebaugh Creek.

The elevation of the base of the roadway north of the culvert that directs flow beneath PHR is approximately two feet higher than the invert of the culvert. Based on the topography of the roadside runoff would flow to the north along the base of PHR.

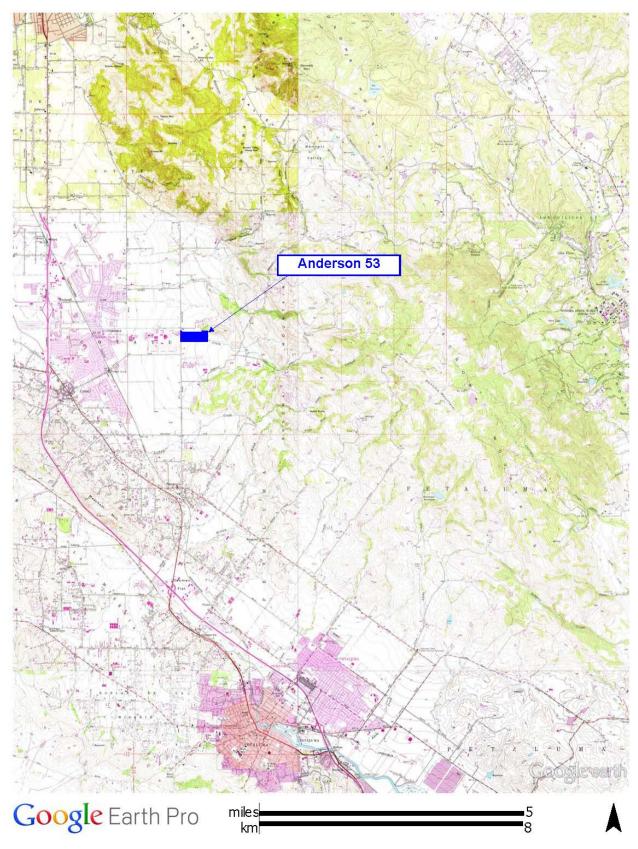


Figure 1. Site location map.

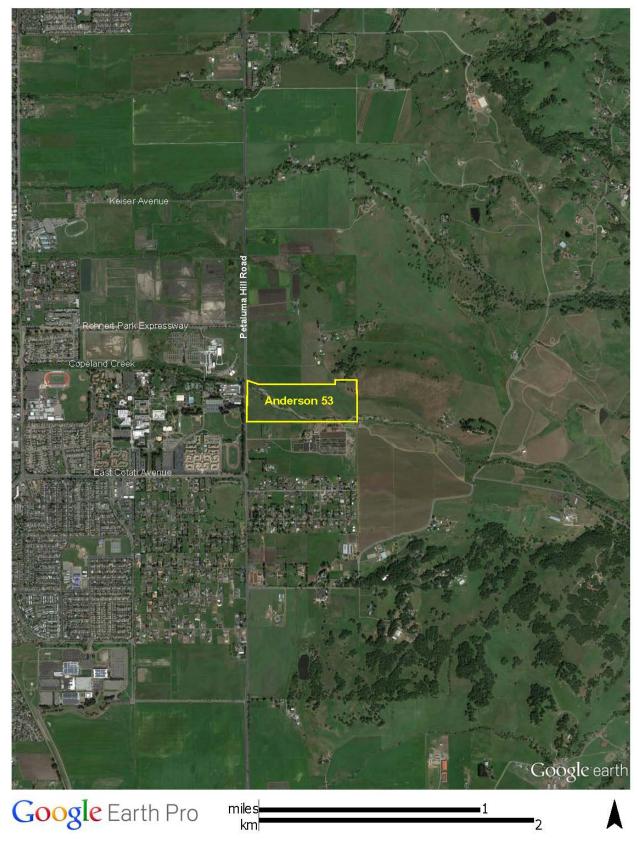


Figure 2. Site vicinity map.

2.2.2 Soils

The soils on the Site and along PHR are mapped by the Soil Conservation Service as Clear Lake clays with sandy substrate and Clear Lake clay loams (U. S. Department of Agriculture 1972; Figure 3). The Clear Lake clay and clay loam soils developed in mixed alluvial material on plains and flat basin areas under poorly drained conditions. The soils are characterized by variable clay content and lenses of cobble and other coarse soil that appear to mark abandoned traces of the Copeland Creek channel. Where present, the clay acts as a water-restricting horizon, causing water to accumulate in the surface soils and above ground in depressional terrain but generally, the soils at the Site appear to be well-drained. Regardless of the designated status as a hydric soil, the soils on Site have been commonly found to be well-drained because of the cobble lenses that carry infiltrated water toward Copeland Creek and elsewhere, leaving the surface soils drier than would be expected.

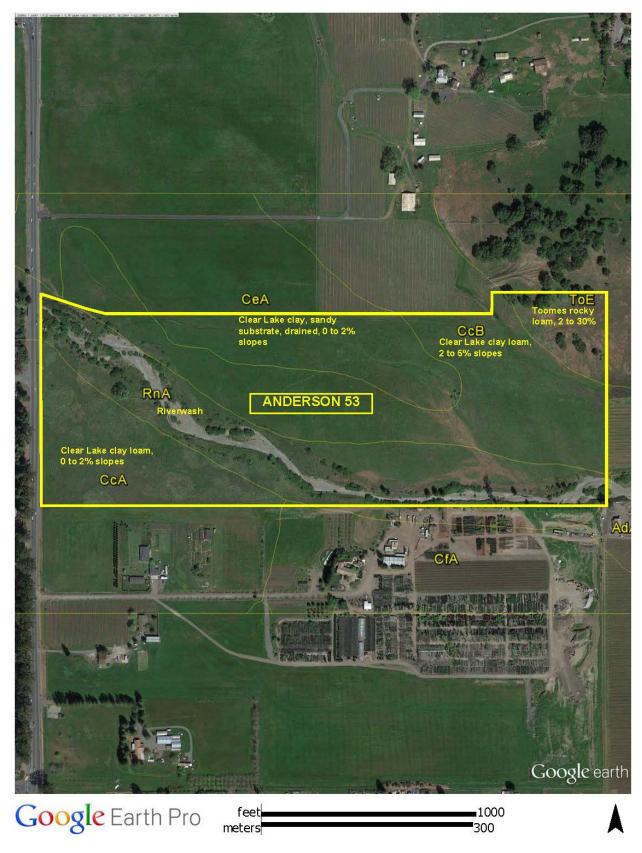


Figure 3. Soils map for the Anderson 53 site.

3.0 REGULATORY BACKGROUND

3.1 **DEFINITIONS**

3.1.1 Waters of the United States

Waters of the United States include "lakes, rivers, intermittent streams, mudflats, sandflats, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds the use, destruction, and/or degradation of which could affect interstate or foreign commerce" [Section 33, Code of Federal Regulations, Part 328.3(a)(3)].

The lateral extent of the Corps of Engineers' jurisdiction over lakes and drainages with defined beds and banks is the ordinary high water mark (OHW). Jurisdiction extends beyond ordinary high water where adjacent wetlands are present.

3.1.2 Wetlands

For the Corps of Engineers to regulate an area as a wetland under the Clean Water Act it must be "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 CFR 328.3(b)]. Three criteria determine whether or not an area satisfies the definition under "normal circumstances." Under normal circumstances, hydrophytic vegetation, hydric soils, *and* a wetland hydrologic regime must be present for an area to be a wetland.

Hydrophytic Vegetation. Hydrophytic vegetation is dominated by plants adapted to wetland inundation or saturated soils because of physiological and reproductive adaptations. The U. S. Fish and Wildlife Service's National Wetlands Inventory has used field observations, expert opinion, and technical documents to identify wetland plant species and has developed wetland species lists which identify species which occur in wetlands.¹

An area is considered vegetated if it has at least five percent vegetative cover. Indicators of hydrophytic vegetation include dominance of the vegetation by plant species with a wetland indicator status using absolute cover and the "50/20" rule; a prevalence indicator of 3.0 or less using numeric assignments to each indicator status (OBL = 1, FACW = 2, FAC = 3, FACU = 5, UPL = 5); or plant morphological adaptations such as adventitious roots, shallow root systems, including those on FACU species as long as they are detected on at least 50 percent of the FACU plants if the site is characterized by hydric soils and wetland hydrologic function.

Hydric Soils. Hydric soils are soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part

¹ Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. State of California 2016 Wetland Plant List. (http://wetland-plants.usace.army.mil/)

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July 26, 2016

(Federal Register, July 13, 1994). Field indicators for identifying hydric soils are described in NRCS (2010) and summarized in the Arid West Manual.

The site is located in the Mediterranean California (LRR C) subregion of the Arid West Region. In non-sandy soils, prolonged anaerobic conditions cause chemical reactions, evidence of which can include sulfidic material, reduced soil conditions, an aquic or peraquic moisture regime, a gleyed soil matrix chroma, bright mottles and/or low matrix chroma, and iron and/or manganese concretions.

Although the physical properties described to assess the presence of hydric soils have not changed the new supplement for the Arid West Region lists several new hydric soil indicators that employ horizon thickness, soil matrix characteristics, the abundance and distinctness or prominence of redoximorphic features, and microtopography in setting indicator names. The indicators most likely to occur in soils on the Santa Rosa Plain include a depleted matrix (indicator F3), a redox dark surface (F6), a depleted dark surface (F7), redox depressions (F8), and vernal pools (V9).

Wetland Hydrology. Wetland hydrologic function or "hydrology" implies periodic inundation or soil saturation to the surface for some period during the growing season. Areas which have seasonally inundated or saturated to the surface for a consecutive number of days for more than 12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met (soils with compacted surfaces may be inundated but remain unsaturated because of extremely low infiltration rates).

Areas that are inundated or saturated between five percent and 12.5 percent of the growing season may or may not be wetlands. The growing season for the central part of Sonoma County, which includes the Santa Rosa Plain, is defined in the Soil Survey for Sonoma County (U.S.D.A., Soil Conservation Service 1972) as between 230 and 260 days, but observations in the field indicate that some plant growth occurs year around.

In order for there to be wetland hydrology, the ground must be saturated and/or inundated for a minimum of five percent of the growing season, which would be between approximately 12 and 13 consecutive days using the estimated growing season from the county soil survey. Based on field observations of mid-winter plant growth (emergence of herbaceous plants; new crown development from perennial rootstocks; bud burst, leaf elongation, and flower development on woody plants) at the project site, the actual growing season for natural and naturalized vegetation is probably year around, which means that for wetland hydrology to be present the area must be inundated and/or saturated for a minimum of 18 consecutive days.

In addition to surface water and saturated soils (within the root zone) several other forms of field evidence indicate that a site may exhibit wetland hydrologic function. Such evidence includes water-matted plant material and water-stained leaves; cracks associated with shrink-swell soils; sediment and drift deposits; deep cattle hoof prints and soil "pedestals" standing above the surrounding ground (indicating periods of long saturation during the cattle grazing season); algal staining or crusts; water marks; drift lines; eggs of frogs, salamanders and other amphibians that breed in water; freshwater clams, snails; and other aquatic invertebrates; crayfish burrows.

4.0 METHODS

The status and the limit of the wetland on the site were determined using procedures for routine on-site determination as described in the *Regional Supplement to the Corps of Engineers' Wetland Manual; Arid West Region (Version 2.0)* (U. S. Army Corps of Engineers 2008) on August 8, 2013. At most sample locations, a series of paired sample sites distributed across the site were established and data on plant cover (absolute cover), soil characteristics and signs of hydrology were collected at each of the sample sites and recorded in a field notebook. Sample sites were located in areas that were dominated by OBL, FACW or FAC species and that showed surface indicators of hydrology.

The location of each sample point at the Site was staked using a numbered pin flag, and the coordinates of each sample point determined by surveyors following completion of the survey. The location of the sample points along PHR were determined by measuring the distance from known land mark features on the topographic map of PHR. The preliminary advisory maps were prepared by MacKay & Somps.

5.0 FINDINGS

The location and extent of the possible jurisdictional features occurring at the Site is shown on Figure 4. The location of sample points and possible jurisdictional features along the east side of PHR is shown on Figure 5. Appendix A contains the field data sheets (Wetland Determination Data Form – Arid West Region).

5.1 ANDERSON 53 SITE.

Other than the jurisdictional habitat within the channel banks of Copeland Creek, the jurisdictional features on the Site include two main drainage features and several isolated drainage features, and an undefined drainage swale that may not be subject to the Corps' jurisdiction.

The total area of the drainage features is approximately 0.568 acre (~27,729 sq. ft.). The approximately 0.081-acre drainage swale occurs toward the west end of the 53-acre Site. The map appended to this letter shows the location of these features. The map is a pre-jurisdictional determination that has not been verified.

The drainage at the base of the hill is well defined, and has a total area of 0.329 acre (~14,331 sq. ft.), and varies in width from eight to 20 feet. The bottom is 16 inches to three feet below the banks where the drainage is defined. The deeper areas are depressional, hold water longer, and are ponded throughout the winter rainy season and into the summer during depending on seasonal rainfall. The drainage is dominated by tall flatsedge (*Cyperus eragrostis*), curvepod yellowcress, rabbitsfoot grass, pennyroyal (*Mentha pulegium*), and spikerush. Subdominant species include ryegrass, bermuda grass (*Cynodon dactylon*), fiddle dock (*Rumex pulcher*), purple loosestrife, and cocklebur (*Xanthium* sp.). The wetland margin quickly transitions into annual grassland habitat dominated by those species found throughout the Anderson 53 Site.

The other defined drainage forms in the southeast quarter of the mitigation area, crosses through the center of the mitigation area, parallels the northern property line. The drainage has a total area of 0.238 acre (10,385 sq. ft.). This drainage is well defined along much of its eastern extent becoming more swale-like where the drainage assumes an east-west orientation. This western section of the drainage supports wetlands embedded within the swale.

The embedded wetlands along the western section of the partially defined drainage are dominated by California semaphore grass (*Pleuropogon californicus*) and common spikerush (*Eleochris macrostachya*), with ryegrass (*Festuca perennis*), rabbitsfoot grass (*Polypogon monspeliensis*), purple loosestrife (*Lythrum hyssopifolia*), and Mediterranean barley (*Hordeum murinum* ssp. *gussoneanum*) also being common.

The same species were also common along the eastern, more defined segment of the drainage, along with curvepod yellowcress (*Rorippa curvisiliqua*) being locally dominant in the deeper depressional areas along the drainage.

The swale at the western end of the drainage does not support wetlands and lacks a continuous ordinary high water mark that is characteristic of jurisdictional drainage features that lack wetland vegetation. The vegetation in the swale is similar that that observed on the surrounding uplands.

5.2 EAST SITE OF PETALUMA HILL ROAD

The area along the base of the eastern side of PHR between the entrance to the Anderson 53 Site and the intersection of Rohnert Park Expressway and PHR did not support any feature that met the technical definition of a jurisdictional wetlands, and except for a few isolated occurrences, there was not a defined bed and bank structure (lack of ordinary high water mark) along the base of the roadway.

South of the entrance to Anderson 53 the roadside area is dominated by Himalayan blackberry shrubs (*Rubus armeniacus*), a FAC species. There is no defined ditch and apparently water only flows to the south toward Copeland Creek if the culvert that runs beneath PHR is backed up. The upper bank of Copeland Creek is approximately 25 feet south of the southern side of the asphalt of the entrance driveway to the Anderson 53 Site.

The vegetation along the east side of PHR between the base of the road berm and the fence line along the western side of adjacent agricultural fields was, for the most part, dominated by FACU and UPL species with a few areas dominated by a mix of FAC and FACU or UPL species. Wild oats (*Avena barbata*), brome grasses (*Bromus diandrus*, *B. hordeaceus*), sweet fennel (*Foeniculum vulgare*), Queen Anne's lace (*Daucus carota*), Italian thistle (*Carduus pycnocephalus*), medusahead (*Elymus caput-medusae*), and Harding grass (*Phalaris aquatica*) were the more common and dominant FACU and UPL species occurring along the roadside area. Ryegrass and prickly oxtongue (*Helminthotheca echioides*) were the common FAC species observed along the base of the roadway. Other species observed included Indian teasel (*Dipsacus sativus*), six-weeks fescue (*Festuca bromoides*) and prickly lettuce (*Lactuca serriola*).

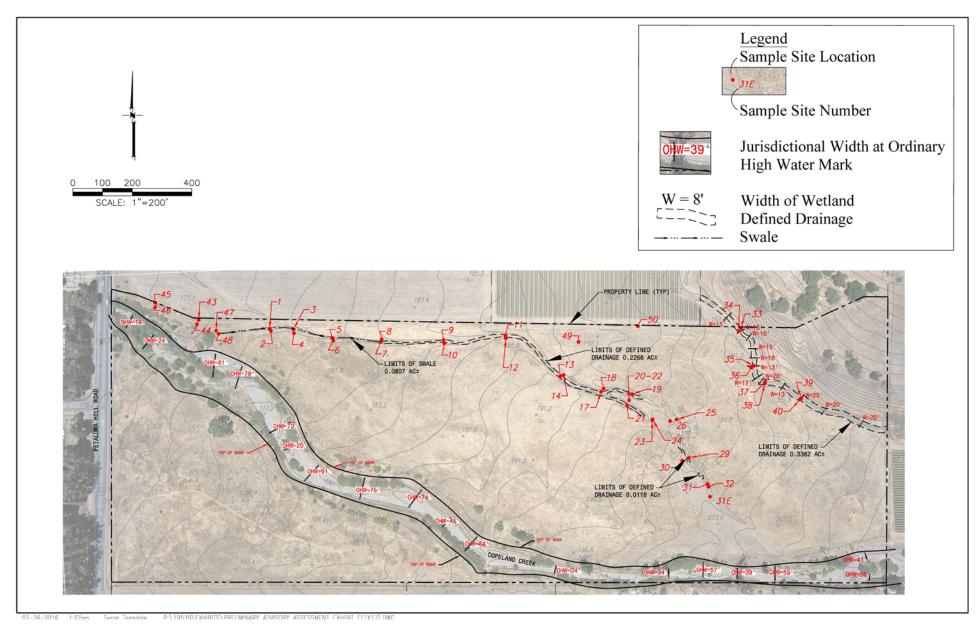


Figure 4. Preliminary advisory assessment jurisdictional map for the Anderson 53 Site.

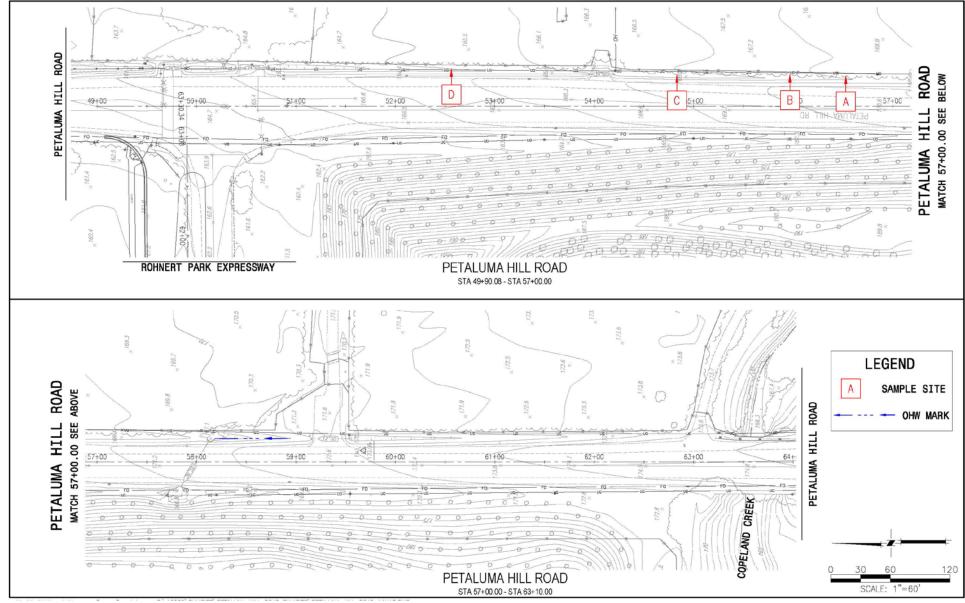


Figure 5. Preliminary advisory assessment jurisdictional map for the east side of Petaluma Hill Road.

6.0 REFERENCES CITED

U. S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers' Wetland Manual; Arid West Region (Version 2.0). Wetlands Regulatory Assistance Program. ERDC/EL TR-08-28, September 2008.

U.S. Department of Agriculture, Natural Resources Conservation Service (NRDC). 2010. Field indicators of hydric soils in the United States. A guide for identifying and delineating hydric soils, version 7.0. L.M. Vasilas, B.W. Hurt and C.V. Noble (eds). USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.

APPENDIX A. FIELD DATA SHEETS

Project/Site: Anderson 53		City/County	_{/:} <u>Sonoma</u>	County	Sam	pling Dat	e: June	2, 2016
Applicant/Owner: <u>University District, LLC</u>				State: C	A Sam	ıpling Poir	nt:	1
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfiel	d	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	кed	!	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratur								
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrologys	-			'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology r	-							
SUMMARY OF FINDINGS – Attach site map								s, etc.
Hydrophytic Vegetation Present? Yes ✓ N								
Hydric Soil Present? Yes N			ne Sampled			1	,	
Wetland Hydrology Present? Yes N	o 🗸	with	nin a Wetlar	nd? Yes	·	No <u> </u>		
Remarks:								
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size:)	Absolute % Cover	Dominant		Dominance Test				
1				Number of Domir That Are OBL, FA			0	(A)
2.						o		(7 1)
3.				Total Number of I Species Across A			0	(B)
4.								(=)
		= Total Co		Percent of Domin			0.0	(A/B)
Herb Stratum (Plot size: 1m^2)								(/
1. Festuca perennis			FAC	Prevalence Inde			برمان امن	
2. Hordeum marinum gussoneanum			FAC	Total % Cove				
Lythrum hyssopifolium Convolvulus arvensis	2		OBL UPL	FACW species _				
Convolvulus arvensis Polygonum arviculare	3		FAC	FAC species _				
3. Torygonam arviculare		= Total Co		FACU species _				
Herb Stratum (Plot size: 1 m^2			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					_
1. Pleuropogon californicus	3	N	OBL	Column Totals:				(B)
2. <u>Eleocharis palustris</u>			OBL				2.22	
3. <u>Polypogon monospeliensis</u>			FACW	Prevalence				_
4				Hydrophytic Veg	_			
5				Dominance ☐ ✓ Prevalence II				
6				Morphologica			ide sunno:	rtina
7					emarks or o			
8		= Total Co		Problematic	Hydrophytic	: Vegetati	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)		_ = 10ta1 Ct	ovei					
1				¹ Indicators of hyd be present, unles				must
2				be present, unles	s disturbed	or proble	mauc.	
	-	_ = Total Co	over	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum % Cover	r of Biotic C	rust	0	Present?	Yesv	<u>/ No</u>		
Remarks:				1				
I .								

Profile Desc	ription: (Describe	to the depth n	eeded to docu	ment the i	ndicator	or confirn	m the absence of indicators.)	
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	_
0-9	10 YR 3/2	100					grav-loam	
								_
								_
								_
							· · · · · · · · · · · · · · · · · · ·	
	-	· · · · · · · · · · · · · · · · · · ·					·	_
							·	_
							·	_
¹ Type: C=Co	oncentration, D=Dep	letion, RM=Red	luced Matrix, C	S=Covered	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	Indicators: (Applic	able to all LRR	ts, unless othe	rwise note	ed.)		Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Sandy Red	ox (S5)			1 cm Muck (A9) (LRR C)	
Histic Ep	pipedon (A2)		Stripped M				2 cm Muck (A10) (LRR B)	
Black His	stic (A3)		Loamy Mud	-			Reduced Vertic (F18)	
	n Sulfide (A4)		Loamy Gle		(F2)		Red Parent Material (TF2)	
	d Layers (A5) (LRR (C) .	Depleted M	, ,			Other (Explain in Remarks)	
	ick (A9) (LRR D)		Redox Dar					
	Below Dark Surface	e (A11)	Depleted D				31. diameter of harden bather and	
	ark Surface (A12) lucky Mineral (S1)	•	Redox Dep Vernal Poo		-8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,	
	Gleyed Matrix (S4)		vernar Poo	is (F9)			unless disturbed or problematic.	
	_ayer (if present):						unless disturbed of problematic.	
	Layor (ii procent):							
	ches):		•				Hydric Soil Present? Yes No _ ✓	
' '			-				Hydric Soil Present? Yes No✓	
Remarks:								
HYDROLO	GY							
	drology Indicators:							
_	cators (minimum of o		ock all that ann	(v)			Secondary Indicators (2 or more required)	
	•	ine required, cir	• • • • • • • • • • • • • • • • • • • •	-				_
Surface			Salt Crust	` '			Water Marks (B1) (Riverine)	
1 — ·	iter Table (A2)		Biotic Cru		- (D40)		Sediment Deposits (B2) (Riverine)	
Saturation			Aquatic In				Drift Deposits (B3) (Riverine)	
	arks (B1) (Nonriver		Hydrogen				Drainage Patterns (B10)	
	nt Deposits (B2) (No				_	_	ots (C3) Dry-Season Water Table (C2)	
I — ·	oosits (B3) (Nonrive	rine)	Presence				Crayfish Burrows (C8)	• `
	Soil Cracks (B6)		Recent Iro			d Soils (C	· —	ન)
	on Visible on Aerial I	magery (B7)	Thin Mucl				Shallow Aquitard (D3)	
	tained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC-Neutral Test (D5)	
Field Observ			,					
Surface Water		es No _				1		
Water Table	Present? Y	es No _	✓ Depth (in	iches):		_		
Saturation Pr	resent? Y	es No _	✓ Depth (in	ches):		Wetl	land Hydrology Present? Yes No <u>√</u>	_
(includes cap	oillary fringe)					ti	if available.	
Describe Rec	corded Data (stream	gauge, monitor	ning well, aerial	priotos, pri	evious iris	pections),	, ii avallable.	
Remarks:								

Remarks:	Project/Site: Anderson 53		City/Count	ty: <u>Sonoma</u>	County	Sar	npling Date	e: June	2, 2016
Section Countries Countr	Applicant/Owner: University District, LLC				State:(CA Sar	npling Poin	t:	2
Dominant Dominant Dominant Dominant Dominant Dominant Dominant Species That Are OBL, FACW, or FAC: 1					_				<5%
re climate/ hydrologic conditions on the site typical for this time of year? Yes									
re climate / hydrologic conditions on the site typical for this time of year? Yes									
re Vegetation Soil or Hydrology significantly disturbed?	· · · · · · · · · · · · · · · · · · ·			,				casonai	
Soil		-							
Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V Wetland Hydrology Present? Wetland Hydrology Present? Yes No V Is the Sampled Area within a Wetland? Wes In Metland? Wes In No V Woodwin a Wetland? Wes In Metland? Wes In M									0
Hydrophylic Vegetation Present? Yes No Ves Within a Wetland? Yes No Ves No Ves Within a Wetland? Yes No Ves No	Are Vegetation, Soil, or Hydrology no	aturally pro	blematic?	(If ne	eded, explain any	answers in	Remarks.)		
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Fee Stratum Chora Stratu	Hydrophytic Vegetation Present? Yes No	· •							
Remarks:	Hydric Soil Present? Yes No	√ √		•			/		
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Absolute	Remarks:								
Absolute									
Absolute									
Absolute									
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)	VEGETATION – Use scientific names of plant				Ţ				
1	Tree Stratum (Plot size:								
2.								1	(A)
3									(, ,)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.33 (A/B)								3	(B)
Fercent of Dominant Species 1m^2 1. Festuca perennis 30									(D)
Note								0 33	(Δ/R)
2. Phalaris aquatica 20 Y FACU Total % Cover of: Multiply by: 3. Vicia sativa 5 N UPL OBL species 0 x 1 = 0 4. Convolvulus arvensis 2 N UPL FACW species 3 x 2 = 6 5. Avena barbata 5 N UPL FACW species 3 x 2 = 6 5. Avena barbata 5 N UPL FACW species 3 x 2 = 6 5. Avena barbata 5 N UPL FACW species 3 x 2 = 6 6. Avena barbata 25 Y UPL Species 53 x 3 = 159 FAC Uspecies 3 X 5 = 185 Column Totals: 113 (A) 430 (B) 9. Rumex pulcher 3 N FACW Prevalence Index = B/A = 3.8 3.8 Hydrophytic Vegetation Indicators: 15. Festuca bromoides 15 N FAC Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Problematic Hydrophytic Ve	Herb Stratum (Plot size: 1m^2)							0.55	(٨/٥)
Solution	1. <u>Festuca perennis</u>								
4. <u>Convolvulus arvensis</u> 5. <u>Avena barbata</u> 5. <u>N UPL FACW species 3 x 2 = 6 5 5 N UPL FACW species 53 x 3 = 159 FACU species 20 x 4 = 80 UPL species 37 x 5 = 185 UPL s</u>	2. Phalaris aquatica				-				
S									
Total Cover						•	_		
Herb Stratum (Plot size: 1 m^2) 1. Elymus caput-medusae 25	5. Avena barbata		-		1				_
1. Elymus caput-medusae 25 Y UPL 2. Rumex pulcher 3 N FAC 3. Juncus tenuis 3 N FAC 4. Hordeum marinum ssp. qussoneanum 3 N FAC 5. Festuca bromoides 15 N FAC 5. FAC 5. FAC 6. Medicago polymorpha 2 N FAC 7. FAC 7. FAC 6. Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) — Prevalence Index is ≤3.0¹ — Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation (Explain) 1	Herb Stratum (Plot size: 1 m^2)		= Total C	over					_
2. Rumex pulcher 3. Juncus tenuis 3. N FACW 4. Hordeum marinum ssp. qussoneanum 3. N FAC 4. Hordeum marinum ssp. qussoneanum 3. N FAC 5. Festuca bromoides 6. Medicago polymorpha 2. N FAC 7		25	Υ	UPL	· ·				(D)
3 N FACW 4. Hordeum marinum ssp. qussoneanum 3 N FAC 5. Festuca bromoides 6. Medicago polymorpha 7			-		Column Totals:	115	_ (A)	430	_ (B)
4. Hordeum marinum ssp. qussoneanum 5. Festuca bromoides 6. Medicago polymorpha 7	a tomassa tamosta	2			Prevalence	e Index = B	/A =	3.8	_
15 N FAC 6. Medicago polymorpha 2 N FAC 7				FAC	Hydrophytic Ve	getation In	dicators:		
6. Medicago polymorpha 2 N FAC — Prevalence Index is ≤3.0¹ — Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation¹ (Explain) 1				FAC	Dominance	Test is >50	%		
7 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8 113 = Total Cover Woody Vine Stratum (Plot size:) 1 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 = Total Cover 8 13 = Total Cover 1 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 = Total Cover 1 = Total Cover 2 = Total Cover 3 1 = Total Cover 4 1 = Total Cover 4 1 = Total Cover 4 2 = Total Cover 4 3 = Total Cover 4 4 = Total Cover 4 4 = Total Cover 4 4 = Total Cover 5 4 = Total Cover 6 4 = Total Cover 7 4 = Total Cover 8 4 = Total Cover 9 5 = Total Cover 1				FAC	Prevalence	Index is ≤3.	0 ¹		
8					Morphologic	cal Adaptation	ons¹ (Provi	de suppoi	ting
Moody Vine Stratum (Plot size:) 1								,	
1 1 1 1		113	= Total C	over	Problematic	Hyaropnyti	c vegetatio	on (Expia	in)
be present, unless disturbed or problematic.	`				¹ Indicators of by	dria agil ana	Lwotland b	udrology	munt
— = Total Cover % Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Hydrophytic Vegetation Present? Yes No ✓									nust
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Vegetation Present? Yes No ✓	2				Hydronby #10		•		
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes No ✓			_						
Remarks:	% Bare Ground in Herb Stratum	of Biotic C	rust	0	Present?	Yes	No	✓	
	Remarks:				•				

Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	s Type ¹	Loc ²	Texture	Remarks
0-12	10 YR 3/2	55	10 YR 3/1	40	d	m	clay loam	
0-12	10 11 3/2							
			10 YR 4/3	_ 5	<u>d</u>	m	clay loam	faint mottles
					·			
				_	·			
							. 2.	
			=Reduced Matrix, C LRRs, unless other			Sand Gra		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
•	`	icable to all	•		eu.)			•
Histoso	pi (AT) pipedon (A2)		Sandy Red Stripped M					Muck (A9) (LRR C) Muck (A10) (LRR B)
	listic (A3)		Suipped in		J (F1)			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-				Parent Material (TF2)
	ed Layers (A5) (LRR	R C)	Depleted N		(1 =)			(Explain in Remarks)
	uck (A9) (LRR D)	,	Redox Dar		(F6)			
	ed Below Dark Surfa	ace (A11)	Depleted D					
Thick D	ark Surface (A12)		Redox Dep	ressions (F8)			of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Poo	ols (F9)			wetland	hydrology must be present,
	Gleyed Matrix (S4)						unless o	disturbed or problematic.
	Layer (if present):							
								,
Depth (in	nches):						Hydric Soil	I Present? Yes No✓
Remarks:								
YDROLO	OGY							
Wetland Hy	drology Indicators	s:						
Primary Indi	icators (minimum of	one require	d; check all that app	ly)			Seco	ndary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crus	t (B11)			V	Vater Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Cru	ıst (B12)			s	Sediment Deposits (B2) (Riverine)
Saturati	ion (A3)		Aquatic Ir	nvertebrate	es (B13)		[Orift Deposits (B3) (Riverine)
Water N	Marks (B1) (Nonrive	erine)	Hydroger	Sulfide O	dor (C1)		0	Orainage Patterns (B10)
Sedime	ent Deposits (B2) (N	onriverine)	Oxidized	Rhizosphe	res along L	iving Root	ts (C3) [Ory-Season Water Table (C2)
Drift De	posits (B3) (Nonriv	rerine)	Presence	of Reduce	ed Iron (C4))	0	Crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Ir	on Reducti	on in Tilled	Soils (C6)) <u> </u>	Saturation Visible on Aerial Imagery (C9
Inundat	ion Visible on Aeria	l Imagery (B	37) Thin Muc	k Surface ((C7)		8	Shallow Aquitard (D3)
Water-9	Stained Leaves (B9))	Other (Ex	plain in Re	emarks)		F	FAC-Neutral Test (D5)
vvaler-c	rvations:							
	vations.		,	nches):		_		
Field Obser		Yes	No <u>✓</u> Depth (ir					
Field Obser	ter Present?		No ✓ Depth (in No ✓ Depth (in	nches):		_		
Field Obser Surface Wat Water Table	ter Present? e Present?	Yes	No <u>✓</u> Depth (in	-		_	ınd Hydrolog	ıy Present? Yes No✓
Field Obser Surface Wat Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No✓
Field Obser Surface Wat Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No <u>✓</u> Depth (in	nches):		Wetla		y Present? Yes No _ ✓
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No _✓
Field Obser Surface War Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No _✓
Field Obser Surface Wat Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No _✓
Field Obser Surface War Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No _✓
Field Obser Surface War Water Table Saturation F (includes ca	ter Present? e Present? Present? upillary fringe)	Yes Yes	No ✓ Depth (in No ✓ Depth (in	nches):		Wetla		y Present? Yes No _✓

Project/Site: Anderson 53		City/County	: Sonoma	County	Sar	npling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State: <u>C</u>	A San	npling Poin	t:	3
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u> </u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	ed	8	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratum	, drained	, 0 to 2% s	slopes	NWI cl	assification	n: PEM2/9	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	✓ No_	(If no, explai	n in Rema	rks.)		
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are '	'Normal Circumstar	ices" prese	ent? Yes_	√ N	ο
Are Vegetation, Soil, or Hydrology na				eeded, explain any a				
SUMMARY OF FINDINGS – Attach site map s			g point l	ocations, trans	ects, im	portant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	✓	lo th	e Sampled	I Aroa				
Hydric Soil Present? Yes No	_		in a Wetlaı			No <u>√</u>		
Wetland Hydrology Present? Yes No								
Remarks:								
VEGETATION – Use scientific names of plant	s.							
		Dominant		Dominance Test	workshee	et:		
		Species?		Number of Domir			0	(4)
1 2				That Are OBL, FA	ACVV, or FA	AC:	0	(A)
3				Total Number of I Species Across A			1	(R)
4.								(D)
		= Total Co		Percent of Domin			0.00	(A/R)
Herb Stratum (Plot size: 1m^2)							0.00	(700)
1. <u>Croton setigerus</u>		Y		Prevalence Inde			ن بجا ، باجا	
2. Rumex pulcher			FAC	Total % Cove OBL species				
Lythrum hyssopifolium Pleuropogon californicus	_	N		FACW species _				
Pleuropogon californicus Polygonum arviculare	2		FAC	FAC species				
o. ion year and in the area of		= Total Co		FACU species		_		_
Herb Stratum (Plot size: 1 m^2)		-		UPL species				_
1				Column Totals: _	55	_ (A)	229	_ (B)
2				Prevalence	Indox = B	/A =	<i>1</i> 16	
3				Hydrophytic Veg			4.10	
4. 5.				Dominance				
6				Prevalence I				
7.				Morphologica	al Adaptatio	ons¹ (Provi		
8.						on a separa	,	
		= Total Co	ver	Problematic	Hydrophyti	c Vegetatio	on' (Expla	in)
Woody Vine Stratum (Plot size:)				¹ Indicators of hyd	rio coil and	Lwotland b	udrology	muet
1				be present, unles				iiusi
2		= Total Co	Wer	Hydrophytic				
45		_		Vegetation			,	
% Bare Ground in Herb Stratum 45 % Cover	of Biotic C	rustC	<u> </u>	Present?	Yes	No		
Remarks:								

Profile Description: (Describe to the depti	n neeaea to aocur			or commi	ii tile absence	or maioators.)
Depth <u>Matrix</u>		x Feature	s			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
<u>0-12</u> <u>10 YR 2/2</u> <u>99</u>	4.5 YR 4/4	1	d	m	clay loam	w/ gravel
		-		-		
			· 			·
		-				
		-		-	· -	
¹ Type: C=Concentration, D=Depletion, RM=F	Reduced Matrix, CS	S=Covere	d or Coate	ed Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L	RRs, unless othe	rwise not	ed.)			s for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Ma					Muck (A10) (LRR B)
Black Histic (A3)	Loamy Muc		l (F1)			ced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gley	ed Matrix	(F2)		Red F	Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted M	atrix (F3)			Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark					
Depleted Below Dark Surface (A11)	Depleted D					
Thick Dark Surface (A12)	Redox Dep		F8)			s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pool	ls (F9)				hydrology must be present,
Sandy Gleyed Matrix (S4)					unless	disturbed or problematic.
Restrictive Layer (if present):						
Type:	<u></u>					
Depth (inches):					Hydric Soi	I Present? Yes No✓
Remarks:					•	
HYDROLOGY						
HYDROLOGY Wetland Hydrology Indicators:						
	check all that appl	y)			Seco	ndary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required;	check all that appl					· · · · · · · · · · · · · · · · · · ·
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1)	Salt Crust	(B11)			\	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Salt Crust	(B11) st (B12)	es (B13)		\	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust Biotic Crust Aquatic In	(B11) st (B12) vertebrate			\	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen	(B11) st (B12) vertebrate Sulfide O	dor (C1)	Livina Ro		Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) st (B12) vertebrate Sulfide O Rhizosphe	dor (C1) res along	-	\ [[ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce	dor (C1) res along ed Iron (C	4)	\ [[ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce	dor (C1) res along ed Iron (C on in Tille	4)	\ [[(C3) [(6) (S3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti	dor (C1) res along ed Iron (C on in Tille (C7)	4)	\ [[[[[[[[]	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti	dor (C1) res along ed Iron (C on in Tille (C7)	4)	\ [[[[[[[[]	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations:	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti Surface o blain in Re	dor (C1) ares along ad Iron (C on in Tille (C7) amarks)	4) d Soils (C	\ [[[[[[[[]	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes N	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti s Surface (blain in Reducti	dor (C1) res along ed Iron (C on in Tille (C7) emarks)	4) d Soils (C	\ [[[[[[[[]	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes N Water Table Present? Yes N	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti s Surface (blain in Re ches): ches):	dor (C1) res along ed Iron (C on in Tille (C7) emarks)	4) d Soils (C	\ [[[[6] [[Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti s Surface (blain in Re ches): ches):	dor (C1) res along ed Iron (C on in Tille (C7) emarks)	4) d Soils (C	\ [[[[6] [[Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Naturation Present?	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide O Rhizosphe of Reduce on Reducti Surface (blain in Re ches): ches): ches):	dor (C1) ures along ed Iron (C on in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 1	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	San	npling Date	: June	2, 2016
Applicant/Owner: University District, LLC				State:C	CA San	npling Poin	t:	4
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	xed	5	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratum								
Are climatic / hydrologic conditions on the site typical for this				<u>.</u>				
Are Vegetation, Soil, or Hydrology signs of the state of the stat	•	·		'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology na								
SUMMARY OF FINDINGS – Attach site map s								s, etc.
Hydrophytic Vegetation Present? Yes No	√							
Hydric Soil Present? Yes No			he Sampled		_	Na /		
Wetland Hydrology Present? Yes No		With	nin a Wetlar	na? Yes	·	NO <u>v</u>		
Remarks:		•						
VECETATION . Her ecientific names of plant								
VEGETATION – Use scientific names of plant		Dominon	t Indicator	Dominanas Tas	4a.ulra.b.a.a	4.		
		Species?		Dominance Test Number of Domin				
1				That Are OBL, F			1	(A)
2				Total Number of	Dominant			
3				Species Across A			2	(B)
4				Percent of Domir	nant Specie	s		
Herb Stratum (Plot size: 1m^2)		= Total Co	over	That Are OBL, F			50	(A/B)
1. Elymus caput-medusae	50	Y	UPL	Prevalence Inde	x workshe	et:		
2. Bromus hordeaceaus	-		FACU	Total % Cov	er of:	Mult	iply by:	
3. Festuca perennis		Υ		OBL species	0	x 1 =	0	_
4. <u>Vicia sativa</u>	_			FACW species	0	_ x 2 =	0	_
5. <u>Festuca bromoides</u>	1	N	UPL	FAC species				_
Hart Otation (Blatains 1 mA2		= Total Co	over	FACU species _				_
Herb Stratum (Plot size: 1 m^2				UPL species _				
1				Column Totals:	101	_ (A)	420	(B)
2 3				Prevalence	Index = B	/A =	4.16	
4.				Hydrophytic Ve	getation In	dicators:		
5.				Dominance	Test is >50°	%		
6				Prevalence I				
7				Morphologic	al Adaptation			
8				Problematic			,	
Woody Vine Stratum (Plot size:)	101	= Total Co	over	i robicinatio	riyaropriya	o vegetatie	и (шхрій	,
1				¹ Indicators of hyd	dric soil and	wetland h	ydrology i	must
2.			·	be present, unles				
		= Total Co	over	Hydrophytic				_
% Bare Ground in Herb Stratum 0		_	0	Vegetation Present?	Vos	No	1	
Remarks:	or piotite o			11636111:	169	NO		
i verialno.								

0-2.5 10 YR 3/2 50 10 YR 2/1.5 50 clay loam mixed 2.5-12 10 YR 2/1 100 clay Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	Color (Matrix or (moist)	%	- Cole	Redo or (moist)	ox Features %	Type ¹	Loc ²	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, GSD Histosol (A1)										
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 1			_		2/1.5		-			THINEG HIGHTA
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 1 cm Muck (A1 Histosol (A1) Sandy Redox (S5) 1 cm Muck (A2 Histosol (A2) Stripped Matrix (S6) 2 cm Muck (A2 Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertile History (A2) Red Parent M. Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Red Parent M. Stratified Layers (A5) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Properties of Properties (A2) Sandy Mucky Mineral (S1) Person (B2) Person (B2	YR 2/	2/1	100						clay	
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Proceed Histosol (A1)										
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Proceed Histosol (A1)										· -
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Proceed Histosol (A1)										
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Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Verti Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent M Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Wetland Hydrology Sandy Gleyed Matrix (S4) Unless disturbed Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present Remarks: Primary Indicators (minimum of one required: check all that apply) Secondary In High Water Table (A2) Biotic Crust (B11) Water Ma Saturation (A3) Aquatic Invertebrates (B13) Drift Dep Saturation (A3) Aquatic Invertebrates (B13) Drift Dep Sediment Deposits (B2) (Nonriverine) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Seas Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Saturatio Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow / Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neu- Selfield Observations: Surface Water Present? Yes No ✓ Depth (inches): Vater Table Present? Yes No ✓ Depth (inches):		is. (Applic	cable to a	•			au.)			•
Black Histic (A3)		(A 2)			-					
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Primary Indicators (minimum of one required; check all that apply) Secondary In Hydric Soil Present Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Derift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Water Stained Leaves (B9) Other (Explain Marks (F2) Other (Explain Marks (F2) Red Nar Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F7) Secondary In Hydric Soil Present Hydric Soil Present Present Becondary In Water Marks (B1) (Nonriverine) Drift Deposits (B12) Drift		A2)		_			I (F1)			
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Bellow Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrosomy wetland hydrology Sandy Gleyed Matrix (S4) Wetland Hydrology (F9) Wetland hydrology unless disturbed siturbed (F9) Restrictive Layer (If present): Type: Depth (inches): Depth (inches): Surface Water (A12) Salt Crust (B11) Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary In Water Male (A2) Sedimen Salturation (A3) Aquatic Invertebrates (B13) Drift Dep Sediment Deposits (B2) (Nonriverine) Aquatic Invertebrates (B13) Drift Dep Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Seas Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Muck Surface (C7) Shallow (Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neu Face (Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Wetland Hydrology Prese (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	,	(A4)			-	-				Parent Material (TF2)
			C)				()		·	(Explain in Remarks)
Depleted Below Dark Surface (A12)			,				F6)			· · · · · · · · · · · · · · · · · · ·
Thick Dark Surface (A12)			ce (A11)			,	,			
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	urface	ce (A12)		_	Redox Dep	oressions (F	- 8)			s of hydrophytic vegetation and
Restrictive Layer (if present): Type:	/ Mine	neral (S1)			Vernal Poo	ols (F9)			wetland	I hydrology must be present,
Type:									unless	disturbed or problematic.
Popth (inches):										
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary In Surface Water (A1) Salt Crust (B11) Water Math (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Dep Mater Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Dep Mater Marks (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Seas Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow / Other (Explain in Remarks) FAC-Neurifield Observations: Surface Water Present? Yes No										
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary In Surface Water (A1) Salt Crust (B11) Water Marks (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Dep Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drianage Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Seas Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturatio Inudation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow / Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neu Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Saturation Present?):								Hydric Soi	Il Present? Yes No <u>√</u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Water Mater Mater Mater Mater Mater Table (A2) Sediment Delater Mater Mater Marks (B12) Sediment Delater Mater Marks (B13) Drift Deposits Deposits (B13) Drift Deposits Deposits (B13) Drift Deposits Deposits (B2) (Nonriverine) Mater Marks (B1) (Nonriverine) Mater Mat										
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Mater Marks (B1) (Nonriverine)	er (A1)	\1)		_	_ Salt Crus	t (B11)			\	Water Marks (B1) (Riverine)
Water Marks (B1) (Nonriverine)	able ((A2) €		_	_ Biotic Cru	ıst (B12)			;	Sediment Deposits (B2) (Riverine)
Sediment Deposits (B2) (Nonriverine)	.3)			_	_ Aquatic Ir	nvertebrate	s (B13)		۱	Drift Deposits (B3) (Riverine)
Drift Deposits (B3) (Nonriverine)	(B1) () (Nonrive	rine)	_	_ Hydrogen	Sulfide Od	dor (C1)		۱	Drainage Patterns (B10)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow A Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neuronal Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Security Depth (inches): Wetland Hydrology Presections) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	posits	its (B2) (N c	onriverine	e)	Oxidized	Rhizosphei	res along	Living Roc	ots (C3) I	Dry-Season Water Table (C2)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Arguster-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neuron Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Wetland Hydrology Preservince Concludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	s (B3)	3) (Nonrive	erine)	_	_ Presence	of Reduce	d Iron (C4	!)	(Crayfish Burrows (C8)
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neu Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Wetland Hydrology Prese (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Crack	cks (B6)		_	_ Recent Ir	on Reduction	on in Tille	d Soils (C6	S) S	Saturation Visible on Aerial Imagery (C9
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	isible o	e on Aerial	Imagery ((B7) _	_ Thin Muc	k Surface (C7)		;	Shallow Aquitard (D3)
Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): Wetland Hydrology Prese (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	d Lea	eaves (B9)		_	_ Other (Ex	plain in Re	marks)		!	FAC-Neutral Test (D5)
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ns:									
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	esent?	nt?	Yes	_ No <u></u>	Depth (ir	nches):		_		
Saturation Present? Yes No _ ✓ _ Depth (inches):								l l		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ent?								and Hydrolog	gy Present? Yes No✓
Remarks:	nt? / fringe	ige)		monitoring	g well, aerial	photos, pre	evious ins	pections),	if available:	
Remarks:	nt? / fringe	ige)	n gauge, i	ποιποιπί						
	nt? / fringe	ige)	m gauge, ı							
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Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: University District, LLC				State: CA	Sampling Point:5
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, Tov	wnship, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixed	Slope (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666735	Datum: WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,					<u> </u>
Are climatic / hydrologic conditions on the site typical for this til			,		
Are Vegetation, Soil, or Hydrology sign	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology natu				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map sh					
The describation Variation Description Variation No.					
Hydrophytic Vegetation Present? Yes _ ✓ No _ Hydric Soil Present? Yes No _			e Sampled		,
Wetland Hydrology Present? Yes ✓ No		withi	n a Wetlan	d? Yes	No <u>√</u>
Remarks:					
VECETATION . Her exicutific names of plants					
VEGETATION – Use scientific names of plants.		D t	La di a atau	Denvisor Testored	
		Dominant Species?		Dominance Test work Number of Dominant S	
1				That Are OBL, FACW,	
2				Total Number of Domin	nant
3				Species Across All Stra	
4				Percent of Dominant S	pecies
		= Total Co	/er		or FAC:100 (A/B)
Herb Stratum (Plot size: 1m^2) 1. Festuca perennis	40	Y	FAC	Prevalence Index wor	rksheet:
2. Phalaris aquatica	10	·	FACU		Multiply by:
3. Vicia sativa			UPL		2 x 1 = 32
4. Polypogon monspeliensis	2	N	FACW		2 x 2 = 4
5. <u>Lythrum hyssopifolium</u>	2		OBL	FAC species5!	5 x 3 = <u>165</u>
		= Total Co	/er	FACU species10	
Herb Stratum (Plot size: 1 m^2)	2	NI	LIDI	UPL species5	
Elymus caput-medusae Hordeum marinum ssp. gussoneanum		N	UPL FAC	Column Totals:10	04 (A) <u>266</u> (B)
3. Pleuropogon californicus			OBL	Prevalence Index	c = B/A =2.56
4				Hydrophytic Vegetation	<u> </u>
5				✓ Dominance Test is	s >50%
6				✓ Prevalence Index i	s ≤3.0 ¹
7					aptations ¹ (Provide supporting
8					s or on a separate sheet)
	104	= Total Co	/er	Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric so	il and wetland hydrology must
1				be present, unless dist	
2		= Total Cov	/er	Hydrophytic	
				Vegetation	/ N
% Bare Ground in Herb Stratum3	Blotic Cr	rust3		Present? Ye	es _ ✓ No
Remarks:					

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

Depth	Matrix			ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 3/2	100					clay loam	
8-12	10 YR 3/2	60	10 YR 3/1	30	d	<u>m</u>	clay loam	faint mottles
			10 YR 4/3	10	d	m	clay loam	faint mottles
					<u> </u>			
		 -	-					
	· -							
	·							
¹ Type: C=C	Concentration, D=D	epletion, RN	M=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to a	II LRRs, unless other	erwise no	ted.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	l (A1)		Sandy Red					Muck (A9) (LRR C)
	pipedon (A2)		Stripped M					Muck (A10) (LRR B)
	listic (A3)		Loamy Mu	-				ed Vertic (F18)
	en Sulfide (A4) ed Layers (A5) (LR	B C\	Loamy Gle	-				arent Material (TF2)
	uck (A9) (LRR D)	K ()	Depleted N Redox Dar				Other	(Explain in Remarks)
	ed Below Dark Surf	ace (A11)	Depleted D		. ,			
	ark Surface (A12)	(,	Redox Der				³ Indicators	of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)	Vernal Poo	ols (F9)			wetland	hydrology must be present,
	Gleyed Matrix (S4)						unless d	listurbed or problematic.
Restrictive	Layer (if present)	:						
Type:								
Depth (in	nches):						Hydric Soil	Present? Yes No _✓
HYDROLO)GY							
-	drology Indicato							
Primary Indi	drology Indicatoricators (minimum c		ed; check all that app	•				ndary Indicators (2 or more required)
Primary Indi	vdrology Indicator icators (minimum o www.e. Water (A1)		Salt Crus	t (B11)			V	Vater Marks (B1) (Riverine)
Primary Indi Surface High Wa	rdrology Indicator icators (minimum o Water (A1) ater Table (A2)		Salt Crus ✓ Biotic Cru	t (B11) ust (B12)	(D42)		v s	Vater Marks (B1) (Riverine) sediment Deposits (B2) (Riverine)
Primary Indi Surface High Wa Saturati	rdrology Indicator icators (minimum c water (A1) ater Table (A2) ion (A3)	of one requir	Salt Crus ✓ Biotic Cru Aquatic Ir	t (B11) ust (B12) nvertebrate			v s d	Vater Marks (B1) (Riverine) sediment Deposits (B2) (Riverine) orift Deposits (B3) (Riverine)
Primary Indi Surface High Wa Saturati Water M	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv	of one requir	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger	t (B11) ust (B12) nvertebrate n Sulfide C	dor (C1)	Living Po	v s d	Vater Marks (B1) (Riverine) sediment Deposits (B2) (Riverine) prift Deposits (B3) (Riverine) prainage Patterns (B10)
Primary Indi Surface High Wa Saturati Water M Sedime	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrivent Deposits (B2) (I	of one requir verine) Nonriverine	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger / Oxidized	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe	dor (C1) eres along	-	V S D D	Vater Marks (B1) (Riverine) sediment Deposits (B2) (Riverine) strift Deposits (B3) (Riverine) strainage Patterns (B10) stry-Season Water Table (C2)
Primary Indi Surface High Wa Saturati Water M Sedime Drift De	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I	of one requir verine) Nonriverine	Salt Crus ✓ Biotic Cru _ Aquatic Ir _ Hydroger) ✓ Oxidized _ Presence	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe	edor (C1) eres along ed Iron (C4	1)	V S C C ots (C3) C	Vater Marks (B1) (Riverine) dediment Deposits (B2) (Riverine) drift Deposits (B3) (Riverine) drainage Patterns (B10) dry-Season Water Table (C2) drayfish Burrows (C8)
Primary Indi Surface High Wa Saturati Water N Sedime Drift De Surface	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonri e Soil Cracks (B6)	of one requir verine) Nonriverine verine)	Salt Crus Biotic Cru Aquatic Ir Hydroger)	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct	edor (C1) eres along ed Iron (C4 ion in Tille	1)	V S C C C C C	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Originage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Reduction Visible on Aerial Imagery (C9)
Primary India Surface High Wa Saturati Water M Sedime Drift De Surface Inundati	rdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrivent Deposits (B2) (I aposits (B3) (Nonries a Soil Cracks (B6) ion Visible on Aeric	rerine) Nonriverine verine) al Imagery (Salt Crus ✓ Biotic Cru — Aquatic Ir — Hydroger Oxidized — Presence — Recent Ir Thin Muc	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface	edor (C1) eres along ed Iron (C4 ion in Tille (C7)	1)	V S C C C C C S S S	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Poryfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Porhallow Aquitard (D3)
Primary India Surface High Wa Saturati Water M Sedime Drift De Surface Inundati	rdrology Indicator icators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonri e Soil Cracks (B6) ion Visible on Aeri Stained Leaves (B8)	rerine) Nonriverine verine) al Imagery (Salt Crus Biotic Cru Aquatic Ir Hydroger)	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface	edor (C1) eres along ed Iron (C4 ion in Tille (C7)	1)	V S C C C C C S S S	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Originage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Reduction Visible on Aerial Imagery (C9)
Primary India Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonri e Soil Cracks (B6) ion Visible on Aeri Stained Leaves (B5) rvations:	rerine) Nonriverine verine) al Imagery (Salt Crus Biotic Cru Aquatic Ir Hydroger)	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduc on Reduct k Surface	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	t) d Soils (Ce	V S C C C C C S S S	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Poryfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Porhallow Aquitard (D3)
Primary Indi Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonri e Soil Cracks (B6) ion Visible on Aeri Stained Leaves (B5) rvations: ter Present?	rerine) Nonriverine verine) al Imagery (Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface xplain in Re	edor (C1) eres along ed Iron (C4 ion in Tille (C7) emarks)	t) d Soils (Ce	V S C C C C C S S S	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Poryfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Porhallow Aquitard (D3)
Primary Indi Surface High Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat	rdrology Indicators (minimum of external (M2) atter (A1) atter Table (A2) ion (A3) Marks (B1) (Nonrivent Deposits (B2) (Nonrivent Deposits (B3) (Nonrivent Castal (M2) (Nonrivent Castal (M3) (Nonrivent Casta	rerine) Nonriverine verine) al Imagery () Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	I) d Soils (Ce	V C C C C C S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Poryfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Porhallow Aquitard (D3)
Primary Indi Surface High Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (B5) rvations: ter Present? Present? pillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C3) Pory-Season Water Table (C4) Pory-Season Water Table (C5) Pory-Season Wate
Primary Indi Surface High Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (B5) rvations: ter Present? Present? pillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C3) Pory-Season Water Table (C4) Pory-Season Water Table (C5) Pory-Season Wate
Primary Indi Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (B5) rvations: ter Present? Present? pillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C3) Pory-Season Water Table (C4) Pory-Season Water Table (C5) Pory-Season Wate
Primary Indi Surface High Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (B5) rvations: ter Present? Present? pillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C3) Pory-Season Water Table (C4) Pory-Season Water Table (C5) Pory-Season Wate
Primary Indi Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (Bs rvations: ter Present? Present? epillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Porift Deposits (B3) (Riverine) Porift Deposits (B10) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C2) Pory-Season Water Table (C3) Pory-Season Water Table (C4) Pory-Season Water Table (C5) Pory-Season Wate
Primary Indi Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (Bs rvations: ter Present? Present? epillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Prift Deposits (B3) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Prayfish AC-Neutral Test (D5)
Primary Indi Surface High Wa Saturati Water M Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriv ent Deposits (B2) (I eposits (B3) (Nonriv e Soil Cracks (B6) cion Visible on Aeri Stained Leaves (Bs rvations: ter Present? Present? epillary fringe)	rerine) Nonriverine verine) al Imagery ()) Yes Yes Yes	Salt Crus ✓ Biotic Cru Aquatic Ir Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No ✓ Depth (ir No ✓ Depth (ir No ✓ Depth (ir	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface kplain in Re nches):	dor (C1) eres along ed Iron (C4 ion in Tiller (C7) emarks)	d Soils (Ce	V S D ots (C3) D S S F	Vater Marks (B1) (Riverine) Rediment Deposits (B2) (Riverine) Prift Deposits (B3) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Reaturation Visible on Aerial Imagery (C9) Prayfish AC-Neutral Test (D5)

Project/Site: Anderson 53	(City/County	: Sonoma	County	Sampling	Date: June	2, 2016
Applicant/Owner: <u>University District, LLC</u>				State: CA	Sampling	Point:	6
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, To	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, o	convex, none): mixed	<u> </u>	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)							
Soil Map Unit Name: Clear Lake Clay, sandy substratum,				_			
Are climatic / hydrologic conditions on the site typical for this ti			,		· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstance		Voc ✓ N	0
Are Vegetation, Soil, or Hydrology nat	-						·
							o oto
SUMMARY OF FINDINGS – Attach site map sh	iowing	sampiin	g point it		is, import	ant feature	s, etc.
Hydrophytic Vegetation Present? Yes No		ls th	e Sampled	Area			
Hydric Soil Present? Yes No _	<u>√</u>		in a Wetlan		No	✓	
Wetland Hydrology Present? Yes No	✓						
Remarks:							
VEGETATION – Use scientific names of plants							
		Dominant	Indicator	Dominance Test we	orkehoot:		
•		Species?		Number of Dominan			
1				That Are OBL, FAC\		1	(A)
2				Total Number of Dor	minant		
3				Species Across All S		3	(B)
4				Percent of Dominant	t Species		
		= Total Co	ver	That Are OBL, FAC		33	(A/B)
Herb Stratum (Plot size: 1m^2)	20	V	FA.C	Dravelance Index v	vo elso boots		
1. Festuca perennis		Y		Prevalence Index w		Multiply by:	
2. Avena barbata		Y		Total % Cover of OBL species			
3. <u>Vicia sativa</u> 4. Festuca bromoides	_	N		FACW species			
4. Festuca bromoiaes 5. Briza minor	1		FAC	FAC species			
		= Total Co		FACU species			_
Herb Stratum (Plot size: 1 m^2)		_ Total 00	VCI	UPL species			_
1. Elymus caput-medusae	40	Y	UPL	Column Totals:			— (B)
2. <u>Hordeum marinum ssp. gussoneanum</u>	5	N	<u>FAC</u>		(')		_ (-)
3. <u>Parentucellia viscosa</u>	1	N	FAC	Prevalence Inc	Jex = B/A =	4.17	
4. Bromus hordeaceus	10	N	FACU	Hydrophytic Veget		ors:	
5				Dominance Tes			
6				Prevalence Inde			
7				Morphological A	idaptations' (l	Provide suppor eparate sheet)	ting
8				Problematic Hyd			
Woody Vine Stratum (Plot size:	114	= Total Co	ver	1 105101114110 1190	210p11y110 v 09	otation (Expla	,
1				¹ Indicators of hydric	soil and wetla	and hydrology r	must
2				be present, unless d			
		= Total Co	ver	Hydrophytic			
		•		Vegetation	.,	/	
% Bare Ground in Herb Stratum 0	f Biotic Ci	rust	<u>'</u>	Present?	Yes	No <u> </u>	
Remarks:							

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix			ox Feature	s						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-12	10 YR 2/2	80	10 YR 3/2	20			clay	mixed matrix; faint mottles			
		·									
	-										
					- ——						
	oncentration, D=Dep					ed Sand Gr	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applic	able to all I	RRs, unless other	rwise not	ted.)		Indicators	for Problematic Hydric Soils ³ :			
Histosol (A1) Sandy Redox (S5)							1 cm l	Muck (A9) (LRR C)			
Histic Epipedon (A2) Stripped Matrix (S6)								Muck (A10) (LRR B)			
Black Histic (A3) Loamy Mucky Mineral (F1)								ced Vertic (F18)			
	en Sulfide (A4)		Loamy Gle	-				Parent Material (TF2)			
	d Layers (A5) (LRR (C)	Depleted N	, ,			Other	(Explain in Remarks)			
	ick (A9) (LRR D)	- (444)	Redox Dar								
	Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)						3Indicators	of hydrophytic vegetation and			
	Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9)							of hydrophytic vegetation and hydrology must be present,			
Sandy Midcky Milleral (S1) — Vernal Pools (P9) Sandy Gleyed Matrix (S4)								disturbed or problematic.			
-	Restrictive Layer (if present):						1	and an expression of problematic.			
	-uyo: (p. 000).										
	ches):						Hydria Sail	I Present? Yes No✓_			
							nyuric 301	I Present? Yes No✓			
Remarks:											
HYDROLO	GY										
	drology Indicators:										
-				L. A			0	and any ladicators (O an assess as suited)			
	cators (minimum of o	<u>ne requirea</u>		-				ndary Indicators (2 or more required)			
Surface			Salt Crus	` ,				Vater Marks (B1) (Riverine)			
ı —	iter Table (A2)		Biotic Cru		.=			Sediment Deposits (B2) (Riverine)			
Saturation			Aquatic Ir					Orift Deposits (B3) (Riverine)			
	larks (B1) (Nonriver		Hydrogen					Orainage Patterns (B10)			
	nt Deposits (B2) (No				_	_		Ory-Season Water Table (C2)			
l —	oosits (B3) (Nonrive	rine)	Presence		•	•	· · · · · · · · · · · · · · · · · · ·	Crayfish Burrows (C8)			
	Soil Cracks (B6)		Recent In			d Soils (C6		Saturation Visible on Aerial Imagery (C9)			
	on Visible on Aerial I	magery (B7					· · · · · · · · · · · · · · · · · · ·	Shallow Aquitard (D3)			
	tained Leaves (B9)		Other (Ex	plain in Re	emarks)		F	FAC-Neutral Test (D5)			
Field Obser	vations:										
Surface Water	er Present? Y	es N	lo <u>√</u> Depth (ir	nches):							
Water Table	Present? Y	es N	lo <u>√</u> Depth (ir	nches):							
Saturation Pr	resent? Y	es N	lo <u>√</u> Depth (ir	nches):		Wetl	and Hydrolog	y Present? Yes No✓			
(includes cap	oillary fringe)										
Describe Re	corded Data (stream	gauge, mo	nitoring well, aerial	photos, pi	revious ins	pections),	if available:				
Remarks:											
1											

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: University District, LLC				State: CA	Sampling Point:7
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, To	wnship, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace			•		
Subregion (LRR): Mediterranean California (LRR C)					
Soil Map Unit Name: Clear Lake Clay, sandy substratum,				-	
Are climatic / hydrologic conditions on the site typical for this ti			,		
	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology sig					
Are Vegetation, Soil, or Hydrology nat					
SUMMARY OF FINDINGS – Attach site map sl	nowing	samplin	g point lo	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No_		1- 41-	. 0 11	A	
Hydric Soil Present? Yes No	✓		e Sampled in a Wetlan		No <u>√</u>
Wetland Hydrology Present? Yes <u>✓</u> No		WILLI	iii a vvetiaii	iu: 165	NO
Remarks:					
VECETATION Lies ecientific names of plants					
VEGETATION – Use scientific names of plants		D t	La di a atau	D	la la cata
		Dominant Species?		Dominance Test work	
1				Number of Dominant S That Are OBL, FACW,	
2					
3				Total Number of Domii Species Across All Stra	
4					
		= Total Co	ver	Percent of Dominant S That Are OBL, FACW,	
Herb Stratum (Plot size: 1m^2)	20	.,			
1. Festuca perennis		<u>Y</u>		Prevalence Index wo	
2. Juncus tenuis			FACW	Total % Cover of:	Multiply by: x 1 = 68
3. <u>Vicia sativa</u> 4. Polypogon monspeliensis	_		UPL		$x_1 = \frac{66}{26}$ $x_2 = \frac{26}{26}$
4. Polypogon monspellensis 5. Lythrum hyssopifolium	3		FACW OBL	•	$\frac{15}{25}$ $\times 3 = \frac{20}{75}$
		= Total Co		FACU species (
Herb Stratum (Plot size: 1 m^2)		_ Total 00	VCI		3 x 5 = 15
1. Eleocharis macrostachya	30	Y	OBL	Column Totals: 1	
2. <u>Hordeum marinum ssp. qussoneanum</u>		N	FAC		
3. Pleuropogon californicus	35	Y	OBL		x = B/A =1.69
4. <u>Convolvulus arvensis</u>			UPL	Hydrophytic Vegetati	
5. <u>Polygonum aviculare</u>			FACW	✓ Dominance Test is	
6				✓ Prevalence Index	
7					aptations ¹ (Provide supporting ks or on a separate sheet)
8					ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	109	= Total Co	ver		
1					oil and wetland hydrology must
2.				be present, unless dist	rurbed or problematic.
		= Total Co	ver	Hydrophytic	
% Bare Ground in Herb Stratum5	of Biotic Cr	rust 0		Vegetation Present? Yes	es√ No
Remarks:				11000111	<u> </u>

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

(inches)	Matrix			x Feature		. 2		
	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-3	10 YR 3/2	100				-	clay	
3-8	10 YR 2/2	100					clay	
8-12	10 YR 2/2	60	10 YR 3/2	30	С	m	clay	faint mottles
			10 YR 4/3	10	С	m	clay	faint mottles
							. "	
				_	_			
			-			-		
			-	· ·				
1- 0.0							. 21	
			M=Reduced Matrix, CS II LRRs, unless othe			ed Sand G		cation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
Histosol		ilcable to a	Sandy Red		teu.)			Muck (A9) (LRR C)
	oipedon (A2)		Stripped Ma	. ,				Muck (A10) (LRR B)
Black His			Loamy Muc		al (F1)			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-	. ,			Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)						Other	(Explain in Remarks)	
	ick (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	d Below Dark Surf	ace (A11)	Depleted D		. ,		3Indicators	s of hydrophytic vegetation and
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9)							hydrology must be present,	
Sandy Gleyed Matrix (S4)								disturbed or problematic.
Restrictive Layer (if present):								
Type:								
Depth (inc	Depth (inches):						Hydric Soi	I Present? Yes No✓
Remarks:								
	GY drology Indicator	rs:						
Wetland Hyd	drology Indicator		ed; check all that appl	(y)			Seco	ndary Indicators (2 or more required)
Wetland Hyd Primary Indic Surface	drology Indicator cators (minimum o Water (A1)		Salt Crust	(B11)			\	Water Marks (B1) (Riverine)
Wetland Hyd Primary Indic Surface High Wa	drology Indicator cators (minimum o Water (A1) ater Table (A2)		Salt Crust	(B11) st (B12)			\	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Primary Indice Surface High Wa Saturation	drology Indicator cators (minimum o Water (A1) ster Table (A2) on (A3)	f one require	Salt Crust Biotic Cru Aquatic In	(B11) st (B12) vertebrat			\	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	drology Indicator eators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriv	f one require	Salt Crust Biotic Cru Aquatic In Hydrogen	(B11) st (B12) vertebrate Sulfide C	odor (C1)	Living Do		Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriv at Deposits (B2) (N	f one require rerine) Nonriverine	Salt Crust Biotic Cru Aquatic In Hydrogen)✓ Oxidized F	(B11) st (B12) vertebrate Sulfide C	odor (C1) eres along	-	\ [[ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indice Surface High Wa Saturatio Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) (Nonrivant Deposits (B2) (Nonrivant Deposits (B3) (Nonrivant)	f one require rerine) Nonriverine	Salt Crust Biotic Cru Aquatic In Hydrogen)	(B11) st (B12) vertebrate Sulfide C Rhizospho of Reduc	odor (C1) eres along ed Iron (C	4)	\ [[ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface	drology Indicators eators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) (Nonrivate Deposits (B2) (Nonrivate Deposits (B3) (Nonrivate Deposits (B6))	of one require verine) Nonriverine verine)	Salt Crust Biotic Cru Aquatic In Hydrogen)	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct	odor (C1) eres along ed Iron (Cotion in Tille	4)		Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundation	drology Indicators eators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) (Nonrival of Deposits (B2) (Ionosits (B3) (Nonrival Soil Cracks (B6) on Visible on Aerica	of one require verine) Nonriverine verine)	Salt Crust Biotic Cru Aquatic In Hydrogen)	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduce on Reduce Surface	odor (C1) eres along ed Iron (Cation in Tille (C7)	4)	ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundation	drology Indicators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) (Nonrivate (B2) (Nonrivate (B3) (Nonrivate (B3) (Nonrivate (B3) (Nonrivate (B4) (of one require verine) Nonriverine verine)	Salt Crust Biotic Cru Aquatic In Hydrogen)	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduce on Reduce Surface	odor (C1) eres along ed Iron (Cation in Tille (C7)	4)	ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S	drology Indicators (minimum of water (A1) ater Table (A2) on (A3) larks (B1) (Nonrivert Deposits (B2) (Nonrivert Deposits (B3) (Nonrivert Deposits (B6) on Visible on Aerictained Leaves (B5) vations:	rerine) Nonriverine verine) al Imagery (I	Salt Crust Biotic Cru Aquatic In Hydrogen) ✓ Oxidized F Presence Recent Iro B7) Thin Muck Other (Ex	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduce on Reduce c Surface plain in R	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Surface Inundatio Water-Si	drology Indicators (minimum of water (A1) after Table (A2) on (A3) arks (B1) (Nonrivate Deposits (B2) (Nonrivate Deposits (B3) (Nonrivate Deposits (B6) on Visible on Aeritained Leaves (B5) vations:	rerine) Nonriverine verine) al Imagery (I	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Iro B7) Thin Muck Other (Ex	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R	odor (C1) eres along ed Iron (Cition in Tille (C7) emarks)	4) d Soils (C	ots (C3) [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hyd Primary Indice Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-Si Field Obser Surface Water Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hyd Primary Indice Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-Si Field Obser Surface Water Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc B7) Thin Muck Other (Ex	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyd Primary Indice Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-Si Field Obser Surface Water Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indice Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-Si Field Observ Surface Water Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicators enter (Minimum of Cators (Minimum of Cators (Minimum of Cators (Minimum of Cators (Ma)) Inter Table (A2) Inter Table	rerine) Nonriverine verine) al Imagery (I)) Yes Yes Yes	Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp No ✓ Depth (in No ✓ Depth (in	(B11) st (B12) vertebrate Sulfide C Rhizosphe of Reduct on Reduct c Surface plain in R ches): ches): ches):	odor (C1) eres along ed Iron (C- tion in Tille (C7) emarks)	4) d Soils (C	ots (C3) [6) 5 F	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Anderson 53		City/Cour	nty: Sonoma	County	San	npling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	CA Sam	npling Poin	nt:	8
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfie								
Landform (hillslope, terrace, etc.): Floodplain terrace				_				<5%
Subregion (LRR): Mediterranean California (LRR C)			•	, —				
Soil Map Unit Name: Clear Lake Clay, sandy substratu								
•			,				<u>Jeasoriai</u>	
Are climatic / hydrologic conditions on the site typical for the	•	_						
Are Vegetation, Soil, or Hydrology				"Normal Circumstar				0
Are Vegetation, Soil, or Hydrology	naturally pro	blematic ²	? (If ne	eeded, explain any	answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	sampl	ing point l	ocations, trans	sects, im	portant	feature	s, etc.
Hydrophytic Vegetation Present? Yes I	No. ✓							
Hydric Soil Present? Yes 1			the Sampled					
Wetland Hydrology Present? Yes	No ✓	Wi	ithin a Wetlar	nd? Yes	s	No <u>✓</u>		
Remarks:								
VEGETATION – Use scientific names of plan	nts.							
Troe Stratum (Plot size:			nt Indicator	Dominance Tes	t workshee	t:		
Tree Stratum (Plot size:)			s? Status	Number of Domi			1	(\ \)
1 2				That Are OBL, F	ACVV, OI 1 A			(A)
3				Total Number of Species Across			3	(B)
4.				Species Across /	All Strata.			(D)
				Percent of Domir That Are OBL, F			N 22	(A /D)
Herb Stratum (Plot size: 1m^2)				That Ale Obl., F	ACVV, OI FA	ic	0.33	(A/D)
1. <u>Festuca perennis</u>			<u>FAC</u>	Prevalence Inde	x workshe	et:		
2. <u>Avena barbata</u>			<u>UPL</u>	Total % Cov				
3. <u>Vicia sativa</u>			UPL	OBL species				
4. <u>Festuca bromoides</u>				FACW species				
5. <u>Convolvulus arvensis</u>	3		UPL	FAC species				
Herb Stratum (Plot size: 1 m^2)		= Total (Cover	FACU species				_
1. Elymus caput-medusae	35	Υ	UPL	UPL species				— (D)
Hordeum marinum ssp. qussoneanum			FAC	Column Totals:	114	_ (A)	473	(B)
3. Briza minor			FAC	Prevalence	Index = B/	/A =	4.15	
4. Bromus hordeaceus			FACU	Hydrophytic Ve	getation In	dicators:		
5.				Dominance	Test is >509	%		
6.				Prevalence I	ndex is ≤3.0	0 ¹		
7				Morphologic				
8					emarks or o	•		
	114		Cover	Problematic	Hydrophytic	c Vegetatio	on' (Expla	in)
Woody Vine Stratum (Plot size:)				11	data a attraca			
1				¹ Indicators of hyd				must
2								
		•		Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0	er of Biotic C	rust	0	Present?	Yes	No	✓	
Remarks:				ı			-	

Depth	Matrix		oth needed to docui Redo	nent the x Feature	s		n the absence	ot indicators.)
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 3/2	60	10 YR 2/2	40			clay loam	mixed matrix; faint mottles
4-12	10 YR 3/2	60	10 YR 2/2	40			clay	mixed matrix; faint mottles
				-				
	-			-				
	-							
17			Deduced Metric Of			-1.01.0	21 -	
			I=Reduced Matrix, CS I LRRs, unless othe			a Sana G		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol		Jabio to ai	Sandy Red		.oui,			Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)								Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)							eed Vertic (F18)	
Elack Hode (16) Elack Hode (17) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)						Red P	arent Material (TF2)	
Stratified	d Layers (A5) (LRR	C)	Depleted M	atrix (F3)			Other	(Explain in Remarks)
	ıck (A9) (LRR D)		Redox Dark		. ,			
	d Below Dark Surfac	e (A11)	Depleted D				3	
	ark Surface (A12)		Redox Dep		F8)			of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4)								hydrology must be present, listurbed or problematic.
	Layer (if present):						unless u	isturbed of problematic.
	Layor (ii procont)i							
· · ·	ches):						Hydric Soil	Present? Yes No✓
Remarks:	CHES).						Tiyunc 3011	rresent: resNov
Nemarks.								
HYDROLO		_						
_	drology Indicators			,				
	-	one require	ed; check all that appl	•				ndary Indicators (2 or more required)
	Water (A1)		Salt Crust	` '				Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus					sediment Deposits (B2) (Riverine)
Saturation	` '		Aquatic In		. ,			Orift Deposits (B3) (Riverine)
	larks (B1) (Nonrive i		Hydrogen					Prainage Patterns (B10)
	nt Deposits (B2) (No				-	-		Ory-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence		,	,		Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro			d Soils (C	· —	Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (E						Shallow Aquitard (D3)
	tained Leaves (B9)		Other (Exp	plain in Re	emarks)		F	AC-Neutral Test (D5)
Field Obser			,					
Surface Wat			No <u>✓</u> Depth (in					
Water Table	Present?	/es	No <u>✓</u> Depth (in	ches):				
Saturation P		/es	No <u>✓</u> Depth (in	ches):		Wetl	land Hydrolog	y Present? Yes No _✓
(includes cap Describe Re		n gauge, m	onitoring well, aerial	photos. ni	evious ins	pections)	if available:	
		. 33-,		, , , , , , , , , , , , , , , , , , ,		,,		
Remarks:								

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	mpling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				A Sa	mpling Poir	nt:	9	
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u></u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	ked		Slope (%):	:_<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.</u>	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratun	n, drained	, 0 to 2% s	slopes	NWI cl	assificatio	n: PEM2/S	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes	✓ No_	(If no, expla	in in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysi	gnificantly	disturbed?	Are '	'Normal Circumstar	ices" pres	ent? Yes_	✓ N	lo
Are Vegetation, Soil, or Hydrologyn			(If ne	eeded, explain any a	answers in	n Remarks.))	
SUMMARY OF FINDINGS – Attach site map			g point l	ocations, trans	ects, in	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes <u>✓</u> No)	1- 41-	0 1 1					
Hydric Soil Present? Yes <u>✓</u> No			ie Sampled iin a Wetlai			No		
Wetland Hydrology Present? Yes <u>√</u> No		With	iii a wetiai	id: Tes		NO		
Remarks:								
VEGETATION – Use scientific names of plant	ts.							
	Absolute	Dominant		Dominance Test	workshe	et:		
		Species?		Number of Domir				
1				That Are OBL, FA	ACW, or F.	AC:	1	(A)
2.				Total Number of			1	(D)
3				Species Across A	ui Strata:		1	(B)
		= Total Co		Percent of Domir That Are OBL, FA			100	(A/D)
Herb Stratum (Plot size: 1m^2)		•					100	(A/D)
1. <u>Pleuropogon californicus</u>		<u>Y</u>		Prevalence Inde				
2. Eleocharis macrostachya		N		Total % Cove				
3. <u>Convolvulus arvensis</u>				OBL species _ FACW species _				
4				FAC species _				_
5		= Total Co	ver	FACU species _				_
Herb Stratum (Plot size: 1 m^2)				UPL species				_
1				Column Totals:	93	(A)	105	(B)
2				Desiratores	ladav — F	2/4 -	1 12	
3				Prevalence Hydrophytic Veg			1.15	
4				✓ Dominance				
5 6				✓ Prevalence I				
7				Morphologica	al Adaptati	ions¹ (Provi	de suppo	rting
8.				data in Re		on a separa		
		= Total Co	ver	Problematic	Hydrophyt	tic Vegetation	n' (Expla)	ıin)
Woody Vine Stratum (Plot size:)				1 maliantana at husa		ما لمصملامين لم		
1				¹ Indicators of hyd be present, unles				must
2				Hydrophytic				
_		= Total Co		Vegetation		,		
% Bare Ground in Herb Stratum 7 % Cover	of Biotic C	rust()	Present?	Yes _	✓ No		
Remarks:								

Depth Matrix Redox Features Matrix Redox Features Type Loc Texture Remarks
0-4 10 YR 3/2 70 10 YR 3/4 30 c m loam mixed matrix 4-12 10 YR 3/2 60 10 YR 3/4 40 c m clay loam mixed matrix
4-12 10 YR 3/2 60 10 YR 3/4 40 c m clay loam mixed matrix Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Thistosol (A1)
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Hydric Soil Present? TYPES VEL AND
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) Red Vertic (F18) Red Vertic (F18) No Reduced Vertic (F18) Red Vertic (F18) Reduced Vertic (F18)
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) Wernal Pools (F9) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes ✓ No Remarks:
Hydrogen Sulfide (A4)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D)
1 cm Muck (A9) (LRR D)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes ✓ No Remarks: HYDROLOGY Wetland Hydrology Indicators:
Restrictive Layer (if present): Type: Depth (inches): Remarks: Hydric Soil Present? Yes No No Wetland Hydrology Indicators:
Type: Hydric Soil Present? Yes
Depth (inches): No Remarks: Hydric Soil Present? Yes ✓ No HYDROLOGY Wetland Hydrology Indicators:
HYDROLOGY Wetland Hydrology Indicators:
HYDROLOGY Wetland Hydrology Indicators:
Wetland Hydrology Indicators:
Wetland Hydrology Indicators:
Wetland Hydrology Indicators:
Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (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 (C1) 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) Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
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:
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches):
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches):
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Wetland Hydrology Present? Yes ✓ No
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches):
Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes ✓ No
Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes ✓ No
Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Project/Site: Anderson 53	(City/County	r: <u>Sonoma</u>	County	Sar	npling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State: <u>C</u>	A San	npling Poir	nt:	10
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfiel	d	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	ed		Slope (%):	:_<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.3</u>	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratur	n, drained	, 0 to 2%	slopes	NWI cl	assification	n: PEM2/	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No_	(If no, expla	n in Rema	rks.)		
Are Vegetation, Soil, or Hydrologys	ignificantly	disturbed?	Are '	'Normal Circumstar	ices" prese	ent? Yes_	✓_ N	lo
Are Vegetation, Soil, or Hydrologyn				eeded, explain any a				
SUMMARY OF FINDINGS – Attach site map			ıg point l	ocations, trans	ects, im	portant	feature	s, etc.
Hydrophytic Vegetation Present? Yes N	o √	lo 4k	ne Sampled	I Avon				
Hydric Soil Present? Yes N	_		in a Wetlai			No √		
Wetland Hydrology Present? Yes N	∘ _ ✓							
Remarks:								
VEGETATION – Use scientific names of plan	ts.							
		Dominant		Dominance Test	workshee	et:		
Tree Stratum (Plot size:)	% Cover			Number of Domir			0	(4)
1				That Are OBL, FA	ACVV, OF FA	4C	0	(A)
3.				Total Number of Species Across A			1	(B)
4.								(D)
		= Total Co		Percent of Domir That Are OBL, FA			0.00	(A/B)
Herb Stratum (Plot size: 1m^2)	0		LIBI					
Avena barbata Elymus caput-medusae	<u>9</u> 70		UPL UPL	Prevalence Inde			tiply by:	
D 1 1	10			OBL species				
Bromus noraeaceaus Phalaris aquatica	1		FACU	FACW species _				
5. Festuca perennis	10		FAC	FAC species				
		= Total Co	over	FACU species _	1	_ x 4 = _	4	_
Herb Stratum (Plot size: 1 m^2				UPL species _	79	_ x 5 = _	395	_
1				Column Totals: _	100	_ (A) _	449	(B)
2				Prevalence	Index = B	/A =	4.49	
3				Hydrophytic Veg				
5.				Dominance				
6.				Prevalence I	ndex is ≤3.	0 ¹		
7				Morphologica				
8				Problematic	emarks or o		,	
Manda Vina Chraham (Diahaira)	100	= Total Co	over	Problematic	пушторпуш	c vegetatio	on (⊏xpia	.111)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hyd	ric soil and	l wetland h	ıvdroloav	must
2.				be present, unles				
		= Total Co	over	Hydrophytic				
% Bare Ground in Herb Stratum0		-)	Vegetation Present?	Vos	No	1	
Remarks:	OI DIOUC CI	ust		i i cociit!	169	140		
Tomans.								
1								

Depth Matrix Redox Features	r confirm the absence of indicators.)
(inches) Color (moist) % Color (moist) % Type ¹	Loc ² Texture Remarks
0-12 10 YR 2/2 60 10 YR 3/2 40	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1)	2 cm Muck (A10) (LRR B) Reduced Vertic (F18)
Black Histor (A3) Edaily Macky Millerar (11) 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 Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	unless disturbed or problematic.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No✓
Remarks:	
UNDBOLOGY	
Wetland Hydrology Indicators:	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11)	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13)	Water Marks (B1) (Riverine)Sediment Deposits (B2) (Riverine)Drift Deposits (B3) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Saturation (A3) Hydrogen Sulfide Odor (C1)	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Li	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Libration Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along LDrift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations:	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Limportation (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present?	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Limit (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Limit (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Limit (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Limit (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Did Crust (B12) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Depth (inches): (includes capillary fringe) Depth (inches): (includes Capillary fringe) Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Depth (inches): (includes Capillary fringe) Depth (inches): (includes Capillary fringe) Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along L Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) iving Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: University District, LLC				State: CA	Sampling Point:11
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, Tov	wnship, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixed	Slope (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666735	Datum: WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,				-	
Are climatic / hydrologic conditions on the site typical for this ti			,		
Are Vegetation, Soil, or Hydrology sign	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology nat				eded, explain any answ	
SUMMARY OF FINDINGS – Attach site map sh					
Hydrophytic Vegetation Present? Yes ✓ No_				_	
Hydric Soil Present? Yes ✓ No			e Sampled		/ No
Wetland Hydrology Present? Yes <u>✓</u> No		with	in a Wetlan	id? fes_v	NO
Remarks:					
VEGETATION – Use scientific names of plants					
· · · · · · · · · · · · · · · · · · ·		Dominant	Indicator	Dominance Test wor	ksheet:
		Species?		Number of Dominant S	Species
1				That Are OBL, FACW,	or FAC: (A)
2				Total Number of Domi	
3				Species Across All Str	ata: <u>2</u> (B)
4		= Total Cov		Percent of Dominant S	
Herb Stratum (Plot size: 1m^2)		- 10tai 00	701	I nat are OBL, FACW,	or FAC:100 (A/B)
1. Pleuropogon californicus				Prevalence Index wo	
2. <u>Eleocharis macrostachya</u>		Y			Multiply by:
3. <u>Festuca perennis</u>			<u>FAC</u>		85 x 1 = 85
4					0
5		= Total Cov		FACU species	
Herb Stratum (Plot size: 1 m^2)		- Total Co	/61	UPL species	
1				Column Totals:	
2					1.21
3					x = B/A = <u>1.21</u>
4				Hydrophytic Vegetati ✓ Dominance Test is	
5				✓ Prevalence Index	
6					aptations ¹ (Provide supporting
8.				data in Remark	ks or on a separate sheet)
		= Total Cov	ver	Problematic Hydro	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)				No disease of books of	ell and continued by deal and and
1				be present, unless dis	oil and wetland hydrology must turbed or problematic.
2				Hydrophytic	
		= Total Cov		Vegetation	,
% Bare Ground in Herb Stratum5	f Biotic Cr	ust 0		Present? Yo	es No
Remarks:					

Profile Desc	cription: (Describe	to the dep	th needed to docu	nent the	indicator	or confire	n the absence of in	dicators.)					
Depth	Matrix			x Feature									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	<u>Texture</u>	Remarks					
0-5	10 YR 2/1	95	7.5 YR 4/4	>5	С	m	loam						
5-12	10 YR 2/1	99	7.5 YR 4/4	1	С	m	silty loam						
													
													
1T C-C		Jetien DM	-Dadward Matrix Ci				21	DI - Dave Living M-Matrix					
			=Reduced Matrix, CS LRRs, unless othe			ed Sand G		: PL=Pore Lining, M=Matrix. roblematic Hydric Soils ³ :					
Histosol		able to all			ieu.)			•					
I —	oipedon (A2)		Sandy Red Stripped Ma				1 cm Muck (A3) (LRR B)					
Black Hi			Comy Muc		al (F1)		Reduced Ve						
	en Sulfide (A4)		Loamy Gley	-	. ,			Material (TF2)					
	d Layers (A5) (LRR (C)	Depleted M					ain in Remarks)					
	ıck (A9) (LRR D)	•	✓ Redox Dark	Surface	(F6)			•					
	d Below Dark Surfac	e (A11)	Depleted D										
	ark Surface (A12)		Redox Dep		(F8)		·	drophytic vegetation and					
	Mucky Mineral (S1)		Vernal Poo	s (F9)			-	logy must be present,					
-	Bleyed Matrix (S4)						unless disturb	ed or problematic.					
	Layer (if present):												
Depth (inc	ches):		<u></u>				Hydric Soil Pres	ent? Yes <u>√</u> No					
Remarks:													
HYDROLO	GY												
	drology Indicators:												
1	-		d. abaal. all that awal)			Casandani	Indicators (2 or many required)					
		ne require	d; check all that appl					Indicators (2 or more required)					
Surface			Salt Crust	` '				Marks (B1) (Riverine)					
ı —	ater Table (A2)		Biotic Crus		- (D40)			ent Deposits (B2) (Riverine)					
Saturation			Aquatic In					eposits (B3) (Riverine)					
	larks (B1) (Nonriver	•	Hydrogen			Lista a Da		ge Patterns (B10)					
	nt Deposits (B2) (No				_	_		ason Water Table (C2)					
-	posits (B3) (Nonrive	rine)	Presence		,	•		h Burrows (C8)					
	Soil Cracks (B6)	(D	Recent Iro			a Solis (C	· —	ion Visible on Aerial Imagery (C9)					
	on Visible on Aerial	imagery (B	,				· · · · · · · · · · · · · · · · · · ·	v Aquitard (D3)					
	tained Leaves (B9)		Other (Ex	Diain in Re	emarks)		FAC-N	eutral Test (D5)					
Field Obser													
Surface Water			No <u>√</u> Depth (in										
Water Table			No <u>✓</u> Depth (in										
Saturation Pr	resent? Y	'es	No <u>✓</u> Depth (in	Wet	land Hydrology Pre	sent? Yes <u>√</u> No							
(includes cap	olliary fringe) corded Data (stream	nauge m	onitoring well, aerial	nhotos ni	revious ins	nections)	if available						
Describe Net	corded Data (Stream	i gauge, iii	ormorning wen, aeriai	priotos, pi	icvious inc	pections),	, ii availabic.						
Damada													
Remarks:													

Project/Site: Anderson 53	(City/County:	Sonoma	County	Samplino	g Date: <u>June</u>	2, 2016
Applicant/Owner: University District, LLC				State: CA	Samplinç	g Point:	12
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, Tov	vnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixed		Slope (%)	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666735		Datum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,	drained	, 0 to 2% s	lopes	NWI classi	fication: PE	M2/Seasonal	
Are climatic / hydrologic conditions on the site typical for this til			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstances		Yes √ N	0
Are Vegetation, Soil, or Hydrology natu				eded, explain any ansv			
SUMMARY OF FINDINGS – Attach site map sh							s, etc.
Hydrophytic Vegetation Present? Yes No _							
Hydric Soil Present? Yes No _			Sampled			,	
Wetland Hydrology Present? Yes No _	_	withi	n a Wetlan	d? Yes	No		
Remarks:		I					
VEGETATION – Use scientific names of plants							
<u> </u>		Dominant	Indicator	Dominance Test wo	rkehoot:		
		Species?		Number of Dominant			
1				That Are OBL, FACV		1	(A)
2				Total Number of Dom	ninant		
3				Species Across All S	trata:	3	(B)
4				Percent of Dominant			
Herb Stratum (Plot size: 1m^2)		= Total Cov	/er	That Are OBL, FACV	/, or FAC:	33	(A/B)
1. <u>Avena barbata</u>	30	Υ	UPL	Prevalence Index w	orksheet:		
2. Elymus caput-medusae	40		UPL	Total % Cover of			
3. <u>Vicia sativa</u>			<u>UPL</u>	OBL species			
4. <u>Convolvulus arvensis</u>			UPL	FACW species			_
5. <u>Festuca perennis</u>	20		<u>FAC</u>	FAC species			_
Herb Stratum (Plot size: 1 m^2)		= Total Cov	/er	UPL species			_
1. <u>Lactuca serriola</u>	1	N	FACU	Column Totals:			
2. <u>Carduus pycnocephalus</u>			UPL				_ , ,
3				Prevalence Inde			_
4				Hydrophytic Vegeta		ors:	
5				Dominance Test			
6				Prevalence Inde: Morphological Ad		Provido suppo	rtina
7				data in Rema	rks or on a s	separate sheet)	ung
8		= Total Cov	· · · · · ·	Problematic Hyd	rophytic Veç	jetation¹ (Expla	in)
Woody Vine Stratum (Plot size:)	103	- Total Cov	/ei				
1				¹ Indicators of hydric s			must
2				be present, unless di	sturbed or p	Toblematic.	
_		= Total Cov	/er	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum	Biotic Cr	ust0		Present?	res	No <u>√</u>	
Remarks:							

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

Depth	Matrix			K Features	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10 YR 2/2	100					clay	
								_
	-							
	-							
¹Type: C=C	oncentration, D=De	oletion RM=F	Reduced Matrix CS	=Covered	d or Coate	nd Sand G	rains ² l oca	tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applie					a oana oi		or Problematic Hydric Soils ³ :
Histosol			Sandy Redo		· · · · ·			ick (A9) (LRR C)
	pipedon (A2)		Stripped Ma					ick (A10) (LRR B)
	istic (A3)		Loamy Mucl		I (F1)			d Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-				ent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		(1 2)			Explain in Remarks)
	uck (A9) (LRR D)	O)	Redox Dark		F6)		Outlot (E	Apidin in remarks)
	d Below Dark Surfac	ce (A11)	Depleted Da					
	ark Surface (A12)) (/ (Redox Depr		, ,		3Indicators of	f hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Pools		• • •			ydrology must be present,
	Gleyed Matrix (S4)			(-	turbed or problematic.
	Layer (if present):							
Type:	, , ,							
Depth (in							Hydric Soil P	resent? Yes No ✓
	cries)						Hydric Soil P	resent? res Nov
Remarks:								
LIVEROLO	-CV							
HYDROLO								
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one required;	check all that apply	/)			<u>Second</u>	ary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Wa	ter Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crus	t (B12)			Sec	diment Deposits (B2) (Riverine)
Saturati	, ,		Aquatic Inv		s (B13)			ft Deposits (B3) (Riverine)
	farks (B1) (Nonrive	rine)	Hydrogen					ninage Patterns (B10)
	nt Deposits (B2) (No					Livina Roc		y-Season Water Table (C2)
	posits (B3) (Nonrive		Presence of		_	_		ayfish Burrows (C8)
	Soil Cracks (B6)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Recent Iro					turation Visible on Aerial Imagery (C9)
		Imagani (P7)				u 00113 (00	, <u> </u>	
	on Visible on Aerial	illiagery (b7)		`	,			allow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	iain in Re	marks)		FAG	C-Neutral Test (D5)
Field Obser								
Surface Wat		·	o <u>√</u> Depth (inc					
Water Table	Present?	res N	o <u>√</u> Depth (inc	:hes):				
Saturation P	resent?	res N	o <u>✓</u> Depth (inc	:hes):		Wetl	and Hydrology	Present? Yes No✓
(includes cap	pillary fringe)							
Describe Re	corded Data (stream	n gauge, mon	itoring well, aerial p	notos, pr	evious ins	pections),	ıt available:	
Remarks:								

Project/Site: Anderson 53		City/County	: Sonoma	County	San	npling Dat	e: June	2, 2016
Applicant/Owner: <u>University District, LLC</u>								
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield								
Landform (hillslope, terrace, etc.): Floodplain terrace								<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratum				=				
			,			·	<u>Jeasoriai</u>	
Are climatic / hydrologic conditions on the site typical for this	-							
Are Vegetation, Soil, or Hydrology sign				'Normal Circumsta				0
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(If ne	eeded, explain any	answers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point l	ocations, tran	sects, im	portant	feature	s, etc.
Lhydrophytic Vocatation Present?								
Hydrophytic Vegetation Present? Yes _ ✓ No Hydric Soil Present? Yes _ ✓ No			e Sampled		,			
Wetland Hydrology Present? Yes ✓ No		with	in a Wetlar	nd? Ye	s	No	_	
Remarks:								
VEGETATION – Use scientific names of plant								
		Dominant Species?		Dominance Tes				
1				Number of Domi That Are OBL, F			2	(A)
2.								(, ,)
3.				Total Number of Species Across			2	(B)
4.						-		(5)
		= Total Co		Percent of Domi That Are OBL, F			100	(A/B)
Herb Stratum (Plot size:1m^2)		_					100	(700)
1. <u>Festuca perennis</u>	40		<u>FAC</u>	Prevalence Inde				
2. Rumex pulcher				Total % Cov			tiply by:	
3. <u>Vicia sativa</u>			UPL	OBL species				_
4. Polypogon monspeliensis				FACW species		_ x 2 = _		_
5. Briza minor	1			FAC species		_ x 3 = _		_
Herb Stratum (Plot size: 1 m^2)	-	_ = Total Co	ver	FACU species UPL species				_
1. Phalaris aquatica	10	N	FACU	Column Totals:				— (B)
2. Hordeum marinum ssp. gussoneanum		Υ	FAC	Column Totals.		_ (^) _	302	_ (b)
3. <u>Parentucellia viscosa</u>			FAC	Prevalence	e Index = B	/A =	2.72	_
4. Rorippa curvisiliqua			OBL	Hydrophytic Ve	getation In	dicators:		
5				✓ Dominance	Test is >50°	%		
6				✓ Prevalence				
7				Morphologic	cal Adaptation			
8				Problematic			,	
	111	= Total Co	ver	i iobieiliatic	Пушорпуш	c vegetati	on (Expla	111)
Woody Vine Stratum (Plot size:)				¹ Indicators of hy	dric soil and	wetland h	nvdrology i	must
1				be present, unle				11000
2		= Total Co		Hydrophytic				
		_		Vegetation		,		
% Bare Ground in Herb Stratum0 % Cover	of Biotic C	rust <u>C</u>	<u> </u>	Present?	Yes	<u>√</u> No		
Remarks:		_						

Profile Des	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirn	n the absence	e of indicators.)
Depth Matrix				ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10 YR 2/2	80	10 YR 3/4	20	<u>C</u>	<u>m</u>	clay loam	large cobbles
8-12	10 YR 2/2	60	10 YR 3/2	30	<u>C</u>	<u>m</u>	clay loam	large cobbles
			10 YR 4/6	10	С	m	clay loam	large cobbles
			-				-	
			-	_				
	-		-	_	- ——			
			-					
			-					
¹ Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless other	rwise not	ed.)		Indicators	s for Problematic Hydric Soils ³ :
Histoso	` '		Sandy Red Stripped M					Muck (A9) (LRR C)
·	pipedon (A2)				Muck (A10) (LRR B)			
Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)								ced Vertic (F18)
	en Sulfide (A4)	C)		-	. ,			Parent Material (TF2) (Explain in Remarks)
	d Layers (A5) (LRR outline (A9) (LRR D)	()	Depleted M ✓ Redox Dar				Other	(Explain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted D		. ,			
I — ·	ark Surface (A12)	- (Redox Dep				³ Indicators	s of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo				wetland	hydrology must be present,
-	Gleyed Matrix (S4)						unless o	disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	nches):						Hydric Soi	I Present? Yes <u>√</u> No
Remarks:							•	
HYDROLO)GV							
1	drology Indicators:		d. d. d. d. dl. dl. d.	L.A			0	and any landing tage (O an arrange and arrange)
	cators (minimum of c	ne require						ndary Indicators (2 or more required)
I —	Water (A1)		Salt Crus	` '			· · · · · · · · · · · · · · · · · · ·	Water Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru		(D40)			Sediment Deposits (B2) (Riverine)
Saturati			Aquatic Ir					Orift Deposits (B3) (Riverine)
	Marks (B1) (Nonriver		Hydrogen		, ,	Listina Des		Orainage Patterns (B10)
	ent Deposits (B2) (No				_	_		Ory-Season Water Table (C2)
	posits (B3) (Nonrive Soil Cracks (B6)	rine)	Presence Recent Iro		•	•		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
	ion Visible on Aerial	Imagany (P				u Solis (Co		Shallow Aquitard (D3)
	Stained Leaves (B9)	iiiageiy (b	Other (Ex					FAC-Neutral Test (D5)
Field Obser	, ,		Other (Ex	piaiii iii ik	ziliaiks)			AC-Neutral Test (D3)
Surface Wat		' 00	No <u>✓</u> Depth (ir	rchee).				
Water Table			No ✓ Depth (ir					
			No <u>✓</u> Depth (ir				and Hudralas	gy Present? Yes ✓ No
Saturation P (includes ca	pillary fringe)	es	ivo <u>v</u> Deptii (ii	icries)		_ well	anu nyurolog	gy Fresent? Tes No
Describe Re	ecorded Data (stream	gauge, m	onitoring well, aerial	photos, pi	revious ins	pections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	Sa	mpling Date	: <u>June</u> :	2, 2016
Applicant/Owner: <u>University District, LLC</u>				State: C	CA Sa	mpling Point	::	14
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfiel	d	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	ked	S	lope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratur				_				
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrologys	-			'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology r				eded, explain any				
SUMMARY OF FINDINGS – Attach site map						•	foaturo	s etc
			ig point i	ocations, trans	sects, ii	iiportanti	Catare	3, 610.
Hydrophytic Vegetation Present? Yes N		ls ti	ne Sampled	Area				
Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N	_	with	nin a Wetlar	nd? Yes	·	No <u>√</u>	_	
Remarks:	<u> </u>							
Tromano.								
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size:)	Absolute % Cover	Dominan		Dominance Tes				
1				Number of Domi			1	(Δ)
2.								(八)
3.				Total Number of Species Across A			3	(B)
4.								(D)
		= Total Co		Percent of Domir That Are OBL, F			33	(A/R)
Herb Stratum (Plot size: 1m^2)								(700)
1. Festuca perennis			FAC	Prevalence Inde				
2. <u>Avena barbata</u>	40		UPL	Total % Cov				
3. <u>Vicia sativa</u>				OBL species				
4. <u>Festuca bromoides</u> 5. Medicago polymorpha	10 2		FACU	FACW species FAC species				
5. <u>Medicago polymorpha</u>		= Total Co		FACU species				_
Herb Stratum (Plot size: 1 m^2)	-	- 10tal Ct	ovei	UPL species				_
1. Elymus caput-medusae	20	Υ	UPL	Column Totals:				
2. <u>Lactuca serriola</u>	1	N	FACU					_ , ,
3. Briza minor	1	N	FAC			B/A =	4.19	_
4. Bromus hordeaceus	5	N	FACU	Hydrophytic Ve	_			
5				Dominance				
6				Prevalence I				
7				Morphologic	ai Adaptat emarks or	on a separa	le suppor te sheet)	ting
8				Problematic			,	
Woody Vine Stratum (Plot size:)		= Total Co	over			-		,
1				¹ Indicators of hyd				must
2.				be present, unles	ss disturbe	ed or problem	natic.	
		= Total Co		Hydrophytic				
% Bare Ground in Herb Stratum0	r of Biotic C	rust (0	Vegetation Present?	Yes	No _	1	
Remarks:	5. DIOIIC O		-	110001111	169_	140_		
Tromano.								

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

Depth	Matrix			K Features	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10 YR 3/1	100					clay	
								_
							·	
¹Type: C=C	oncentration, D=Dep	oletion RM=F	Reduced Matrix CS	=Covered	d or Coate	d Sand Gr	rains ² l ocat	tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					a ouna oi		or Problematic Hydric Soils ³ :
Histosol			Sandy Redo		· · · · · ·			ck (A9) (LRR C)
	pipedon (A2)		Stripped Ma					ck (A3) (LRR B)
	istic (A3)		Loamy Muck		I (F1)			Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-				ent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		(1 2)			xplain in Remarks)
	uck (A9) (LRR D)	•)	Redox Dark		(F6)		Other (E	xpiair ii remarks)
	d Below Dark Surfac	e (A11)	Depleted Da					
	ark Surface (A12)	,0 (, (, 1, 1)	Redox Depr				3Indicators of	hydrophytic vegetation and
	Aucky Mineral (S1)		Vernal Pools		. • ,			drology must be present,
	Gleyed Matrix (S4)		_	(-	turbed or problematic.
	Layer (if present):							·
Type:	, , ,							
Depth (in							Hydric Soil P	resent? Yes No ✓
	CHES)						Hydric Soil P	resent? resNO
Remarks:								
LIVEROLO	OV							
HYDROLO								
Wetland Hy	drology Indicators	i						
Primary India	cators (minimum of	one required;	check all that apply	/)			Seconda	ary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Wa	ter Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crus	t (B12)			Sec	diment Deposits (B2) (Riverine)
Saturati	on (A3)		Aquatic Inv	ertebrate	s (B13)		Drif	t Deposits (B3) (Riverine)
	larks (B1) (Nonrive	rine)	Hydrogen \$					inage Patterns (B10)
	nt Deposits (B2) (No					Livina Roc		-Season Water Table (C2)
	posits (B3) (Nonrive		Presence of		_	-		yfish Burrows (C8)
	Soil Cracks (B6)	/	Recent Iron				· 	uration Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (R7)				0010 (00	· —	allow Aquitard (D3)
	stained Leaves (B9)	illiagery (Br)		`	,		· 	C-Neutral Test (D5)
Field Obser			Other (Exp	iaiii iii i\e	illains)	-	FAC	5-Neutral Test (D3)
		,	1 5 " "					
Surface Wat		<u></u>	o <u>√</u> Depth (inc					
Water Table			o <u>√</u> Depth (inc			1		
Saturation P	resent?	/es N	o <u>√</u> Depth (inc	:hes):		Wetl	and Hydrology I	Present? Yes No <u>√</u>
(includes cap	oillary fringe)						if eveilable:	
Describe Re	corded Data (strean	ı gauge, mon	inoring well, aerial p	niotos, pr	evious ins	pections),	ıı available:	
Remarks:								

Project/Site: Anderson 53	City/County: Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: University District, LLC		State: CA	Sampling Point:17
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	Section, Township, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace	Local relief (concave, c	convex, none): mixed	Slope (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C) Lat:			
Soil Map Unit Name: Clear Lake Clay, sandy substratum, drain		-	
Are climatic / hydrologic conditions on the site typical for this time of			
Are Vegetation, Soil, or Hydrology significan			resent? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology naturally		eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map showi			
Hydrophytic Vegetation Present? Yes Yes No Hydric Soil Present? Yes No No No No No No No N	is the Sampled		
Wetland Hydrology Present? Yes ✓ No		id? Yes <u>√</u>	No
Remarks:			
VEGETATION – Use scientific names of plants.			
	ute Dominant Indicator	Dominance Test works	sheet:
	ver Species? Status	Number of Dominant Sp	
1		That Are OBL, FACW, o	or FAC:1 (A)
2		Total Number of Domina	
3		Species Across All Strat	ta: <u>1</u> (B)
4	= Total Cover	Percent of Dominant Sp	pecies or FAC:100 (A/B)
Herb Stratum (Plot size: 1m^2)			
1. Rorippa curvisiliqua 70		Prevalence Index work	
2			Multiply by:
3) x 1 = <u>70</u> x 2 = <u>0</u>
5			x 3 = 0
	= Total Cover	FACU species 0	
Herb Stratum (Plot size: 1 m^2)		UPL species0	x 5 =0
1		Column Totals:70) (A) <u>70</u> (B)
2		Prevalence Index	= B/A = <u>1.00</u>
3		Hydrophytic Vegetatio	
5		✓ Dominance Test is	
6		✓ Prevalence Index is	s ≤3.0 ¹
7			otations ¹ (Provide supporting
8			or on a separate sheet) Ohytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)	= Total Cover	1 Toblematic Hydrop	onytic vegetation (Explain)
1		¹ Indicators of hydric soil	and wetland hydrology must
2.		be present, unless distu	
	= Total Cover	Hydrophytic	
% Bare Ground in Herb Stratum30	c Crust0	Vegetation Present? Yes	s_√ No
Remarks:	_ _		<u> </u>

	cription: (Describe	to the dep				or confirm	n the absence of	f indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	Type ¹	Loc²	Texture	Remarks
0-12	10 YR 2/2	96	7.5 YR 4/4				clay loam	
0 12	10 111 2/2		7.3 11. 17 1	_ <u>- · </u>			ciay ioaiii	
				_	-			
					-	· ——		
					-			
					_			
¹ Type: C=Ce	oncentration, D=Dep	letion, RM=	=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Locat	tion: PL=Pore Lining, M=Matrix.
• •	Indicators: (Applic							or Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Red	dox (S5)			1 cm Mu	ck (A9) (LRR C)
	pipedon (A2)		Stripped M					ck (A10) (LRR B)
Black Hi	` '		Loamy Mu					d Vertic (F18)
	en Sulfide (A4)	C \	Loamy Gle	•	, ,			ent Material (TF2)
	d Layers (A5) (LRR (ick (A9) (LRR D)	()	Depleted M ✓ Redox Dar	` ,			Other (E	xplain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted [. ,			
	ark Surface (A12)	,	Redox Dep		. ,		³ Indicators of	hydrophytic vegetation and
	lucky Mineral (S1)		Vernal Poo	ols (F9)				drology must be present,
	Gleyed Matrix (S4)						unless dist	turbed or problematic.
	Layer (if present):							
	ches):						Hydric Soil P	resent? Yes <u>√</u> No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of o	ne required	d; check all that app	oly)			Seconda	ary Indicators (2 or more required)
Surface	Water (A1)		Salt Crus	t (B11)			Wa	ter Marks (B1) (Riverine)
High Wa	iter Table (A2)		Biotic Cru	ıst (B12)			Sec	diment Deposits (B2) (Riverine)
Saturation	• •		Aquatic I	nvertebrate	es (B13)		Drif	t Deposits (B3) (Riverine)
	larks (B1) (Nonriver		Hydroger					inage Patterns (B10)
	nt Deposits (B2) (No				_	_		-Season Water Table (C2)
	oosits (B3) (Nonrive	rine)	Presence		,	,		ryfish Burrows (C8)
	Soil Cracks (B6)	lmagan, (D.				ed Soils (Ce	· —	uration Visible on Aerial Imagery (C9)
	on Visible on Aerial tained Leaves (B9)	illiagery (b		k Surface oplain in Re				allow Aquitard (D3) C-Neutral Test (D5)
Field Obser	. ,		Other (E/	xpiaiii iii ixe	erriarks)			5-Neutral Test (D3)
Surface Wat		'	No <u>√</u> Depth (ii	nches).				
Water Table			No <u>✓</u> Depth (ii					
Saturation P			No <u>✓</u> Depth (ii				land Hydrology I	Present? Yes <u>√</u> No
(includes cap	oillary fringe)	es	No <u>▼</u> Deptii (ii	iciles)		••••।	ianu nyurology i	riesent: res_v NO
Describe Re	corded Data (stream	gauge, mo	onitoring well, aerial	photos, pr	revious ins	spections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	Sa	mpling Date	e: <u>June</u> :	2, 2016
Applicant/Owner: University District, LLC				State:	SaSa	mpling Poin	ıt:	18
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u></u>	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	ked	8	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.</u>	342442		_ Long: <u>-122.666</u>	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratun	n, drained	, 0 to 2%	slopes	NWI c	lassificatio	n: <u>PEM2/</u> 9	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	✓ No_	(If no, expla	in in Rema	arks.)		
Are Vegetation, Soil, or Hydrologys	gnificantly	disturbed?	Are '	"Normal Circumstar	nces" pres	ent? Yes_	√ N	0
Are Vegetation, Soil, or Hydrologyn				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map				ocations, trans	sects, in	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	o_ √ _	le th	ne Sampled	I Aroa				
Hydric Soil Present? Yes No			nin a Wetlaı			No √		
Wetland Hydrology Present? Yes No								
Remarks:								
VEGETATION – Use scientific names of plant	ts.							
-		Dominant		Dominance Tes	t workshe	et:		
			Status	Number of Domi				
1				That Are OBL, F	ACW, or F	AC:	0	(A)
2.				Total Number of			2	(D)
3				Species Across A	Ali Strata:		2	(B)
··-		= Total Co		Percent of Domir That Are OBL, F			0.00	(A/R)
Herb Stratum (Plot size: 1m^2)							0.00	(740)
1. <u>Bromus diandrus</u>			UPL	Prevalence Inde				
2. Avena barbata	60		UPL	Total % Cov				
Vicia sativa Parentucellia viscosa	1		UPL FAC	OBL species _ FACW species _				
5	•		FACU	FAC species				
- O		= Total Co	. ——	FACU species				
Herb Stratum (Plot size: 1 m^2)				UPL species				
1. Elymus caput-medusae			UPL	Column Totals:	102	(A)	506	(B)
2. <u>Carduus pycnocephalus</u>				Dravalanca	ledev - F	D/A -	4.06	
3				Prevalence Hydrophytic Ve		·	4.96	
4				Dominance	_			
5 6				Prevalence I				
7				Morphologic			de suppor	rting
8.				data in R	emarks or	on a separa	ate sheet)	
		= Total Co		Problematic	Hydrophyt	tic Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)				11	lata a att a a	al a Al a al . la		
1				¹ Indicators of hyd be present, unles				nust
2		= Total Co		Hydrophytic		-		
		_		Vegetation			,	
% Bare Ground in Herb Stratum 0	of Biotic C	rust	<u>U</u>	Present?	Yes _	No		
Remarks:								

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

Depth	Matrix		Redox	x Features	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14	10 YR 2/2	100					clay loam	
				·				
								_
					-			
¹Type: C=C	oncentration, D=Dep	oletion. RM=F	Reduced Matrix. CS	=Covered	or Coate	d Sand Gr	rains. ² Loca	tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applic							or Problematic Hydric Soils ³ :
Histosol			Sandy Redo		,			ick (A9) (LRR C)
	pipedon (A2)		Stripped Ma					ick (A10) (LRR B)
	istic (A3)		Loamy Mucl		l (F1)			d Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-	. ,			ent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		,			explain in Remarks)
	uck (A9) (LRR D)	,	Redox Dark		F6)			•
	d Below Dark Surfac	ce (A11)	Depleted Da	rk Surfac	e (F7)			
Thick Da	ark Surface (A12)		Redox Depr	essions (f	F8)		³ Indicators o	f hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland hy	ydrology must be present,
-	Gleyed Matrix (S4)						unless dis	turbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	ches):						Hydric Soil P	Present? Yes No
Remarks:	<u> </u>							
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
_	cators (minimum of		check all that apply	/)			Second	ary Indicators (2 or more required)
-		one required,						
	Water (A1)		Salt Crust					tter Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus		(5.46)			diment Deposits (B2) (Riverine)
Saturati			Aquatic Inv					ft Deposits (B3) (Riverine)
	larks (B1) (Nonrive		Hydrogen					ainage Patterns (B10)
	nt Deposits (B2) (No				_	-		/-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence of					ayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro			d Soils (C6	· —	turation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)		Sha	allow Aquitard (D3)
Water-S	stained Leaves (B9)		Other (Exp	lain in Re	marks)		FA	C-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	res N	o <u>√</u> Depth (inc	ches):				
Water Table	Present?	res N	o <u>√</u> Depth (inc	ches):				
Saturation P			o ✓ Depth (inc			1	and Hydrology	Present? Yes No ✓
(includes cap	oillary fringe)		o Boptii (iiit	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_		
	corded Data (strean	n gauge, mor	itoring well, aerial p	hotos, pro	evious ins	pections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	Sonoma	County	Sa	mpling Date	e: <u>June</u> :	2, 2016	
Applicant/Owner: University District, LLC									
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Ra	nge:					
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	ked		Slope (%):	<5%	
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	atum: WS	G84	
Soil Map Unit Name: Clear Lake Clay, sandy substratum	, drained	, 0 to 2% s	lopes	NWI cl	assificatio	n: <u>PEM2/</u>	Seasonal		
Are climatic / hydrologic conditions on the site typical for this			,						
Are Vegetation, Soil, or Hydrology sig	-			"Normal Circumstar			✓ N	0	
Are Vegetation, Soil, or Hydrology na				eeded, explain any					
SUMMARY OF FINDINGS – Attach site map s								s, etc.	
Hydrophytic Vegetation Present? Yes ✓ No									
Hydric Soil Present? Yes No			e Sampled			No			
Wetland Hydrology Present? Yes ✓ No		with	in a Wetla	nd? Yes	·	NO			
Remarks:		•							
VEGETATION – Use scientific names of plant	<u> </u>								
<u> </u>		Dominant	Indicator	Dominance Tes	t workshe	et.			
		Species?		Number of Domir					
1				That Are OBL, F			2	(A)	
2				Total Number of	Dominant				
3				Species Across A	All Strata:		2	(B)	
4				Percent of Domir					
Herb Stratum (Plot size: 1m^2)		= Total Co	ver	That Are OBL, F	ACW, or F	AC:	100	(A/B)	
1. Festuca perennis	70	Υ	FAC	Prevalence Inde	x worksh	eet:			
2. Rumex pulcher			FAC	Total % Cov					
3. <u>Hordeum marinum ssp. gussoneanum</u>			<u>FAC</u>	OBL species					
4. Briza minor				FACW species _					
5. <u>Medicago polymorpha</u>				FAC species					
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU species _UPL species _					
1				Column Totals:					
2								_ ` ,	
3				Prevalence			3.01		
4				Hydrophytic Ve	_				
5				<u>✓</u> Dominance					
6				Prevalence I			do ounno	tina	
7						on a separa			
8				Problematic	Hydrophyt	tic Vegetatio	on¹ (Expla	in)	
Woody Vine Stratum (Plot size:)	112	= Total Co	ver						
1				¹ Indicators of hyd				must	
2				be present, unles	ss disturbe	a or problei	natic.		
		= Total Co	ver	Hydrophytic Vegetation					
% Bare Ground in Herb Stratum 0	of Biotic C	rust0	<u> </u>	Present?	Yes	√ No			
Remarks:				ı					

Depth Matrix Color (moist) % Type Loc Texture Remarks
0-5
10 YR 3/1
10 YR 4/4 5
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Judicators: (Applicable to all LRRs, unless otherwise noted.) Histoso((A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)
Histosol (A1) Sandy Redox (S5)1 cm Muck (A9) (LRR C) Histic Epipedon (A2)
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) Are Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Sardace Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10)
Black Histic (A3)
Hydrogen Sulfide (A4)
1 cm Muck (A9) (LRR D)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes ✓ No Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Salturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes _√ No Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Restrictive Layer (if present): Type: Depth (inches):
Depth (inches):
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Water Marks (B1) (Riverine) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) _ Surface Water (A1) _ Salt Crust (B11) _ Water Marks (B1) (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 (C1) _ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) _ Surface Water (A1) _ Salt Crust (B11) _ Water Marks (B1) (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 (C1) _ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) _ Surface Water (A1) _ Salt Crust (B11) _ Water Marks (B1) (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 (C1) _ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) _ Surface Water (A1) _ Salt Crust (B11) _ Water Marks (B1) (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 (C1) _ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) _ Surface Water (A1) _ Salt Crust (B11) _ Water Marks (B1) (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 (C1) _ Drainage Patterns (B10)
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (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 (C1) Drainage Patterns (B10)
High Water Table (A2) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
— · · · · — · · — · · · — · · · · · · ·
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)
Water-Stained Leaves (B9)
Field Observations:
Surface Water Present? Yes No _✓ Depth (inches):
Water Table Present? Yes No _✓ Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
2000/120 Procedured 2 data (officially grades), mornitaring from procedure inoposition of, in divinitaria.
Remarks:

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	mpling Date	: June	2, 2016
Applicant/Owner: University District, LLC			CA Sa	mpling Point	:: <u>20</u>)-22		
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	xed	s	lope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	tum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratum	, drained	, 0 to 2% s	slopes	NWI c	lassificatio	n: PEM2/S	easonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology sig	-			'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s							feature	s, etc.
Hydrophytic Vegetation Present? Yes No	√	lo th	e Sampled	Aroo				
Hydric Soil Present? Yes No	_		in a Wetlar			No <u>√</u>		
Wetland Hydrology Present? Yes No		With		100	,	110 <u> </u>		
Remarks:								
VEGETATION – Use scientific names of plants	S.							
		Dominant		Dominance Tes	t workshe	et:		
,		Species?		Number of Domin			0	
1				That Are OBL, F	ACVV, or F.	AC:	0	(A)
2 3				Total Number of			2	(D)
4				Species Across A				(D)
		= Total Co		Percent of Domir That Are OBL, F			0.0	(Δ/R)
Herb Stratum (Plot size: 1m^2)							0.0	(700)
1. Elymus caput-medusae		<u>Y</u>		Prevalence Inde				
2. Avena barbata	<u>60</u>		UPL	Total % Cov				
Festuca perennis Hordeum marinum ssp. gussoneanum		N N		OBL species _ FACW species _				
5. Parentucellia viscosa	1		FAC	FAC species				
		= Total Co		FACU species				
Herb Stratum (Plot size: 1 m^2				UPL species				
1. <u>Trifolium pratense</u>				Column Totals:	100	(A)	482	(B)
2						2/4	4.02	
3						B/A =	4.82	_
4				Hydrophytic Ve	_			
5				Prevalence I				
6 7				Morphologic			de suppoi	rting
8.				data in R	emarks or	on a separa	te sheet)	
		= Total Co		Problematic	Hydrophyt	tic Vegetatio	n¹ (Expla	in)
Woody Vine Stratum (Plot size:)				1				
1				¹ Indicators of hyd be present, unles				must
2								
		= Total Co	ver	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0	of Biotic C	rust <u>C</u>)	Present?	Yes	No	✓	
Remarks:								

Profile Desc	cription: (Describe	to the depth ne	eded to docu	ment the i	ndicator o	or confirm	n the absence	e of indicators.)
Depth	Matrix			x Features	3			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14	10 YR 2/2	100					clay loam	w/ minor gravel
								·
		· — — —						·
								·
	•							
								·
		<u> </u>					-	
¹Type: C=Co	oncentration, D=Dep	letion, RM=Red	uced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (Applic	able to all LRR	s, unless othe	rwise note	ed.)		Indicator	s for Problematic Hydric Soils ³ :
Histosol	(A1)	_	Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)
Histic Ep	pipedon (A2)	_	Stripped M	atrix (S6)			2 cm	Muck (A10) (LRR B)
Black Hi	stic (A3)	<u>-</u>	Loamy Mud	cky Minera	l (F1)		Redu	ced Vertic (F18)
Hydroge	en Sulfide (A4)	<u>-</u>	Loamy Gle	yed Matrix	(F2)		Red F	Parent Material (TF2)
	d Layers (A5) (LRR (C) _	Depleted M	latrix (F3)			Other	(Explain in Remarks)
	ıck (A9) (LRR D)	-	Redox Dar	,	,			
I — ·	d Below Dark Surfac	e (A11)	Depleted D				0	
	ark Surface (A12)	-	Redox Dep	•	=8)			s of hydrophytic vegetation and
	Mucky Mineral (S1)	-	Vernal Poo	ls (F9)				hydrology must be present,
	Gleyed Matrix (S4)						unless	disturbed or problematic.
	Layer (if present):							
		_						,
Depth (inc	ches):						Hydric So	il Present? Yes No _✓
Remarks:								
	O.V.							
HYDROLO								
Wetland Hyd	drology Indicators:							
Primary Indic	cators (minimum of c	ne required; che	eck all that app	ly)			Seco	ondary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			\	Water Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Cru	st (B12)			;	Sediment Deposits (B2) (Riverine)
Saturation	on (A3)		Aquatic In	vertebrate	s (B13)		1	Drift Deposits (B3) (Riverine)
Water M	larks (B1) (Nonriver	ine)	Hydrogen	Sulfide Od	dor (C1)			Drainage Patterns (B10)
	nt Deposits (B2) (No					Living Roc		Dry-Season Water Table (C2)
	oosits (B3) (Nonrive		Presence		_	_		Crayfish Burrows (C8)
	Soil Cracks (B6)	-,	Recent Iro				· · · · · · · · · · · · · · · · · · ·	Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial I	magery (B7)	Thin Mucl				· —	Shallow Aquitard (D3)
	tained Leaves (B9)		Other (Ex					FAC-Neutral Test (D5)
Field Observ			01.101 (EX	piaiii iii i to	marro)			The Head a rest (Be)
		oo No	/ Donth (in	abaa\.				
Surface Water		es No _				l l		
Water Table		es No _				l l		
Saturation Pr	resent? Y	es No _	✓ Depth (in	iches):		_ Wetl	and Hydrolog	gy Present? Yes No✓
(includes cap	corded Data (stream	gauge monitor	ing well aerial	nhotos nr	evious ins	nections)	if available:	
Describe rec	coraca Data (stream	gaage, monitor	ing well, derial	priotos, pri	CVIOGO IIIO	pections),	ii avallabic.	
Remarks:								

Project/Site: Anderson 53	(City/County:	Sonoma	County	S	ampling Date	: June 2	2, 2016
Applicant/Owner: University District, LLC				State:	CA S	ampling Point	t:	21
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u> </u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	xed	s	lope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666	735	Da	tum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratum				_				
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology sig	-			'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s							feature	s, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No			e Sampled			,		
Wetland Hydrology Present? Yes No		with	in a Wetlar	nd? Yes	S	_ No <u></u>	_	
Remarks:		l						
VECETATION Line exigntific names of plant								
VEGETATION – Use scientific names of plants		Dominant	Indicator	Dominance Tes	t worksh	oot:		
		Species?		Number of Domi				
1				That Are OBL, F			1	(A)
2				Total Number of	Dominan	t		
3				Species Across A			1	(B)
4				Percent of Domir	nant Spec	cies		
Herb Stratum (Plot size: 1m^2)		= Total Co	ver	That Are OBL, F	ACW, or l	FAC:	100	(A/B)
1. Festuca perennis	80	Y	FAC	Prevalence Inde	ex works	heet:		
2. Bromus hordeaceaus	_	N	FACU	Total % Cov	er of:	Multi	ply by:	_
3. <u>Vicia sativa</u>			UPL	OBL species				
4. Lathyrus latifolius			<u>UPL</u>	FACW species				_
5. Briza minor	2			FAC species				_
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU species UPL species				_
1. Elymus caput-medusae	5	N	UPL	Column Totals:				— (B)
2. Hordeum marinum ssp. qussoneanum				Column rotals.		(^)	304	_ (b)
3				Prevalence	Index =	B/A =	3.20	_
4				Hydrophytic Ve	_			
5				<u>√</u> Dominance				
6				Prevalence I				4:
7						itions¹ (Provic r on a separa		
8		= Total Co		Problematic	Hydrophy	tic Vegetatio	n¹ (Expla	in)
Woody Vine Stratum (Plot size:)		= Total Co	ver					
1.				¹ Indicators of hyd				must
2				be present, unles	ss disturb	ed or problen	natic.	
		= Total Co	ver	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum5	of Biotic C	rust <u>0</u>		Present?	Yes_	✓ No		
Remarks:				1				

Depth	Matrix			ment the ox Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-12	10 YR 2/2	96	7.5 YR 4/4	4	С	m	clay loam			
-		_	-			-				
			-		· 		 -			
			-					-		
¹Type: C=C	oncentration, D=De	pletion, RM	l=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Loca	ation: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applie	cable to al	I LRRs, unless other	erwise not	ed.)		Indicators f	or Problematic Hydric Soils ³ :		
Histoso	` '		Sandy Red				1 cm Mu	uck (A9) (LRR C)		
	pipedon (A2)		Stripped M					uck (A10) (LRR B)		
	istic (A3)		Loamy Mu	-	. ,			d Vertic (F18)		
	en Sulfide (A4)	0 \	Loamy Gle	-	(F2)			rent Material (TF2)		
	d Layers (A5) (LRR uck (A9) (LRR D)	C)	Depleted M Redox Dar		(E6)		Other (E	Explain in Remarks)		
	d Below Dark Surface	ce (A11)	Depleted D		. ,					
	ark Surface (A12)	55 (7111)	Redox Dep				³ Indicators o	of hydrophytic vegetation and		
Sandy I	Mucky Mineral (S1)		Vernal Poo		,			ydrology must be present,		
Sandy (Gleyed Matrix (S4)				unless disturbed or problematic.					
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):						Hydric Soil F	Present? Yes No		
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators	:								
Primary Indi	cators (minimum of	one require	ed; check all that app	ly)			Second	dary Indicators (2 or more required)		
Surface	Water (A1)		Salt Crus	t (B11)			Wa	ater Marks (B1) (Riverine)		
High W	ater Table (A2)		Biotic Cru	ıst (B12)			Se	diment Deposits (B2) (Riverine)		
Saturati	on (A3)		Aquatic Ir	nvertebrate	es (B13)		Dri	ift Deposits (B3) (Riverine)		
Water N	Marks (B1) (Nonrive	rine)	Hydrogen	Sulfide O	dor (C1)		Dra	ainage Patterns (B10)		
Sedime	nt Deposits (B2) (No	onriverine)	Oxidized	Rhizosphe	res along	Living Ro	ots (C3) Dr	y-Season Water Table (C2)		
Drift De	posits (B3) (Nonrive	erine)	Presence	of Reduce	ed Iron (C	4)	Cra	ayfish Burrows (C8)		
Surface	Soil Cracks (B6)		Recent Ire	on Reducti	on in Tille	d Soils (C	6) Sa	turation Visible on Aerial Imagery (C9)		
Inundat	ion Visible on Aerial	Imagery (E	B7) Thin Muc	k Surface	(C7)		Sh	allow Aquitard (D3)		
Water-S	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FA	.C-Neutral Test (D5)		
Field Obser	vations:									
Surface Wa	ter Present?	Yes	No <u>✓</u> Depth (ir	nches):		<u> </u>				
Water Table	Present?	Yes	No <u>✓</u> Depth (ir	nches):						
Saturation F		Yes	No <u>✓</u> Depth (ir	nches):		Wet	land Hydrology	Present? Yes No✓		
	pillary fringe) corded Data (strear	n dalide m	onitoring well, aerial	nhotos nr	evious ins	enections)	if available:			
Describe 140	oorded Data (otrear	ii gaage, iii	iorntoring wen, denar	priotos, pr	CVIOGO IIIC	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ii avaliable.			
Remarks:										
remarks.										

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	mpling Date	e: <u>June</u>	2, 2016
Applicant/Owner: University District, LLC	State: <u>CA</u> San						nt:	23
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	d	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	ked	(Slope (%)	: <5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.</u>	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratun	n, drained	, 0 to 2% s	slopes	NWI cl	assificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	✓ No_	(If no, expla	in in Rema	arks.)		
Are Vegetation, Soil, or Hydrologys	ignificantly	disturbed?	Are '	"Normal Circumstar	nces" pres	ent? Yes_	✓_ N	lo
Are Vegetation, Soil, or Hydrologyn				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map			g point l	ocations, trans	sects, in	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes ✓ No	o	lo th	e Sampled	I Aron				
Hydric Soil Present? Yes No	_		in a Wetlaı			No <u>√</u>	,	
Wetland Hydrology Present? Yes No	o <u> </u>						<u> </u>	
Remarks:								
VEGETATION – Use scientific names of plant	ts.							
Troc Stratum (Diet size:		Dominant		Dominance Tes	t workshe	et:		
Tree Stratum (Plot size:) 1	% Cover			Number of Domin			2	(\(\)
2.						AO		(八)
3.				Total Number of Species Across A			2	(B)
4.								()
		= Total Co		Percent of Domir That Are OBL, FA			100	(A/B)
Herb Stratum (Plot size: 1m^2)	70		FA.C	Prevalence Inde				
Festuca perennis Rumex pulcher	2		FAC	Total % Cov			tinly by:	
Rumex puicner Hordeum marinum gussoneum				OBL species				
4. Avena barbata	2			FACW species				
5. Vicia sativa	2			FAC species				
		= Total Co	ver	FACU species	0	_ x 4 = _	0	_
Herb Stratum (Plot size: 1 m^2)	2			UPL species				_
1. Elymus caput-medusae				Column Totals:	100	_ (A) _	314	(B)
2				Prevalence	Index = F	3/A =	3.14	
3				Hydrophytic Ve				
5				✓ Dominance	-			
6.				Prevalence I	ndex is ≤3	.01		
7.				Morphologic	al Adaptati	ions¹ (Provi	de suppo	rting
8				data in Re		on a separ	,	
Manda Vina Otratura (District	100	= Total Co	ver	Problematic	пушорну	ic vegetation	JII (⊏xpia	1111)
Woody Vine Stratum (Plot size:)				¹ Indicators of hyd	lric soil an	d wetland h	ıvdrology	must
1 2				be present, unles				made
2.		= Total Co		Hydrophytic				
0/ David Crayland in Harly Chapture 0 0/ Callen		-		Vegetation	Vaa	/ No		
% Bare Ground in Herb Stratum 0	OI BIOUC C	iusi <u></u>	<u>, </u>	Present?	res_	✓ No		
Remarks:								

Depth	Matrix	to the dep	pth needed to docu Redo	x Feature	S		n the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-7	10 YR 3/2	50	10YR3/3	50	С	m	grav-loam	faint mottles
7-14	10 YR 3/2	100					grav-loam	
			I=Reduced Matrix, C			ed Sand G		cation: PL=Pore Lining, M=Matrix.
-		able to all	I LRRs, unless othe		ed.)			for Problematic Hydric Soils ³ :
Histosol	(A1) Dipedon (A2)		Sandy Red Stripped M					Muck (A9) (LRR C)
	stic (A3)		Suipped Mi		l (F1)			Muck (A10) (LRR B) sed Vertic (F18)
_	en Sulfide (A4)		Loamy Gle	-	. ,			arent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M		()			(Explain in Remarks)
1 cm Mu	ıck (A9) (LRR D)		Redox Dari	k Surface	(F6)			
	d Below Dark Surfac	e (A11)	Depleted D				2	
	ark Surface (A12)		Redox Dep Vernal Poo		F8)			of hydrophytic vegetation and
	Mucky Mineral (S1) Bleyed Matrix (S4)		wetland hydrology must be present, unless disturbed or problematic.					
	Layer (if present):		uniess d	isturbed of problematic.				
· · ·	ches):						Hydric Soil	Present? Yes No✓
Remarks:							1.,	
HYDROLO								
_	drology Indicators:							
Primary India	cators (minimum of o	one require	ed; check all that app	y)			<u>Secor</u>	ndary Indicators (2 or more required)
	Water (A1)		Salt Crust	,				Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru					sediment Deposits (B2) (Riverine)
Saturation	` '		Aquatic In		, ,			Orift Deposits (B3) (Riverine)
	larks (B1) (Nonriver		Hydrogen					Orainage Patterns (B10)
	nt Deposits (B2) (No				-	-		Ory-Season Water Table (C2)
	posits (B3) (Nonrive	rine)	Presence Recent Iro		`	,		Crayfish Burrows (C8)
	Soil Cracks (B6) on Visible on Aerial	lmagony (E				u Solis (Ci	· —	Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
	tained Leaves (B9)	iiilagery (L	Other (Ex		. ,			AC-Neutral Test (D5)
Field Obser			01101 (EX	piaiii iii i te			·	710 1104141 1001 (20)
Surface Wat		'es	No ✓ Depth (in	ches).				
Water Table			No ✓ Depth (in					
Saturation P			No ✓ Depth (in				land Hydrolog	y Present? Yes No _ ✓
(includes car	oillary fringe)							y 11036iii. 103 <u> </u>
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, pr	evious ins	spections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	Sa	mpling Date	: June	2, 2016
Applicant/Owner: <u>University District, LLC</u>				State: C	CA Sa	mpling Poin	t:	24
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfie	ld	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	ef (concave,	convex, none): mi	xed	8	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake clay loam, 0 to 5 % slo								
Are climatic / hydrologic conditions on the site typical for thi			,					
Are Vegetation, Soil, or Hydrologys	-			'Normal Circumsta			✓ N	0
Are Vegetation, Soil, or Hydrology r				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map						,		e etc
		Jampin	ig point i	ocations, trans	30013, 111	прогили	Teatare	<u> </u>
Hydrophytic Vegetation Present? Yes N Hydric Soil Present? Yes N		ls t	he Sampled					
Wetland Hydrology Present? Yes N		witl	hin a Wetlaı	nd? Yes	s	No <u>√</u>	_	
Remarks:								
VEGETATION – Use scientific names of plan	ıts.							
Tree Stratum (Plot size:)			t Indicator Status	Dominance Tes				
1				Number of Domi That Are OBL, F.			2	(Δ)
2.								(八)
3.				Total Number of Species Across A			4	(B)
4.								(D)
		= Total Co		Percent of Domin			50	(A/R)
Herb Stratum (Plot size: 1m^2)							30	(700)
1. <u>Festuca perennis</u>			FAC	Prevalence Inde				
2. <u>Avena barbata</u>	35		UPL	Total % Cov				
3. <u>Hordeum marinum ssp. gussoneanum</u>		Y	FAC FAC	OBL species				
4. Festuca bromoides			FAC	FACW species FAC species				
5. Rumex pulcher	3	= Total Co	FACW	FACU species		x 3 = x 4 =		_
Herb Stratum (Plot size: 1 m^2)		= Total Co	ovei	UPL species				_
1. Elymus caput-medusae	5	N	UPL	Column Totals:				
2. <u>Bromus hordeaceus</u>		Y	FACU	Column Totalo.		_ ('') _	130	_ (D)
3. <u>Carduus pycnocephalus</u>	1	N	UPL	Prevalence	Index = E	B/A =	3.92	_
4. <u>Erodium cicutarium</u>	2	N	UPL	Hydrophytic Ve	_			
5				Dominance				
6				Prevalence				
7				Morphologic	al Adaptat emarks or	ions' (Providon a separa	de suppoi ate sheet)	rting
8				Problematic			,	
Woody Vine Stratum (Plot size:)	111	= Total Co	over		,	rogotatio	(=/\pi	,
1				¹ Indicators of hyd	dric soil an	d wetland h	ydrology i	must
2.				be present, unles				
		= Total Co		Hydrophytic			_	_
0/ Para Cround in Harb Stratum 2 0/ Cove		_		Vegetation	Vaa	No	./	
% Bare Ground in Herb Stratum3	I OI BIOUC C	านอเ		Present?	162	No		
Remarks:								

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

Depth	Matrix			x Feature:	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10 YR 3/4	100					sandy clay	loam with cobbles
							-	
¹Type: C=C	oncentration, D=Dep	oletion RM=F	Reduced Matrix CS	=Covered	d or Coate	d Sand Gr	rains ² l or	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					a ouna oi		for Problematic Hydric Soils ³ :
Histosol			Sandy Redo		· · · · ·			Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
	istic (A3)		Loamy Mucl		l (F1)			ed Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-	. ,			arent Material (TF2)
	Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)							(Explain in Remarks)
		-,		(
	d Below Dark Surfac	ce (A11)	Depleted Da		. ,			
-	ark Surface (A12)	, ,	Redox Depr				³ Indicators	of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland	hydrology must be present,
Sandy C	Bleyed Matrix (S4)		unless d	isturbed or problematic.				
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No ✓
Remarks:				, , , , , ,				
rtemanto.								
HYDROLO	GY							
	drology Indicators							
_			ala a al call Ala a A a a a a l	۸			Canan	adam (Indiantara (O an mana manuirad)
-	cators (minimum of o	one requirea;						ndary Indicators (2 or more required)
	Water (A1)		Salt Crust	• •			· · · · · · · · · · · · · · · · · · ·	Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus					ediment Deposits (B2) (Riverine)
Saturati			Aquatic Inv					orift Deposits (B3) (Riverine)
	larks (B1) (Nonrive		Hydrogen					rainage Patterns (B10)
	nt Deposits (B2) (No				_	-		ry-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence of					crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reducti	on in Tille	d Soils (C6	S) S	aturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)		s	hallow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Exp	lain in Re	marks)		F	AC-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	res N	o <u>√</u> Depth (inc	ches):				
Water Table	Present?	res N	o <u>√</u> Depth (inc	ches):				
Saturation P			o ✓ Depth (inc			1	and Hydrolog	y Present? Yes No ✓
(includes cap	oillary fringe)	1001	o Depti (inc	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_ '''	ana myanolog	, 1 1000 III 100 II0
Describe Re	corded Data (strean	n gauge, mor	itoring well, aerial p	hotos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	r: Sonoma	County	Sa	mpling Date	e: <u>June</u>	2, 2016
Applicant/Owner: University District, LLC				:A Sa	mpling Poir	nt:	25	
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u></u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	ked	(Slope (%):	:_<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.</u>	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratun	n, drained	, 0 to 2%	slopes	NWI cl	lassificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology si	-			'Normal Circumstar			✓ N	lo
Are Vegetation, Soil, or Hydrologyn				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map								s, etc.
Hydrophytic Vegetation Present? Yes ✓ No	o	le th	ne Sampled	I Aroa				
Hydric Soil Present? Yes No	_		in a Wetlai			No <u>√</u>		
Wetland Hydrology Present? Yes No	<u> </u>						<u> </u>	
Remarks:								
VEGETATION – Use scientific names of plant	ts.							
		Dominant		Dominance Tes	t workshe	et:		
	% Cover			Number of Domin			1	(4)
1				That Are OBL, F	ACVV, or F	AC:	1	(A)
3				Total Number of Species Across A			1	(D)
4								(D)
		= Total Co		Percent of Domir That Are OBL, F			100	(A/R)
Herb Stratum (Plot size: 1m^2)							100	(700)
1. <u>Festuca perennis</u>		<u>Y</u>		Prevalence Inde				
2. Rumex crispus				Total % Cov				
3. <u>Hordeum marinum gussoneanum</u>				OBL species _ FACW species _				
4 5.	-	-		FAC species				
J		= Total Co	over	FACU species				_
Herb Stratum (Plot size: 1 m^2)	-	_ rotar oc	,,,,,	UPL species				_
1				Column Totals:			300	
2						2/4	2.00	
3				Prevalence			3.00	
4				Hydrophytic Veg ✓ Dominance	_			
5				✓ Prevalence I				
6				Morphologic			de suppo	rting
8.				data in Re	emarks or	on a separa	ate sheet))
		= Total Co	over	Problematic	Hydrophy	tic Vegetation	on¹ (Expla	ıin)
Woody Vine Stratum (Plot size:)				1				
1				¹ Indicators of hyd be present, unles				must
2					- diotarbe	- Problem		
		= Total Co	over	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0	of Biotic C	rust()	Present?	Yes _	✓ No		
Remarks:				•				

		confirm the absence of indicators.)
Depth Matrix Color (moist) % C	Redox Features color (moist) % Type ¹ I	Loc ² Texture Remarks
0.4 40.VP.3/2 400		1
0-4 10 YR 3/2 100		grav-loam
¹ Type: C=Concentration, D=Depletion, RM=Red	uced Matrix, CS=Covered or Coated S	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRR		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Dark Surface (F7)Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive Layer (if present):		<u>'</u>
Type:		
Depth (inches):		Hydric Soil Present? Yes No✓
Remarks:		
HYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:		
	eck all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	eck all that apply) Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv 	Water Marks (B1) (Riverine)Sediment Deposits (B2) (Riverine)Drift Deposits (B3) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) 	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che 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)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cheese Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) 	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cheese Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) ✓_ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chees) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) ✓_ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chees) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches): ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chees) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches): ✓ Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
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Project/Site: Anderson 53	(City/County:	Sonoma	County	Samp	oling Date: _J	une 2, 2016
Applicant/Owner: University District, LLC				State:	A Samp	oling Point: _	26
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, Tov	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mix	ed	Slope	e (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.3</u>	342442		Long: -122.6667	' 35	Datum	ı: WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,							·
Are climatic / hydrologic conditions on the site typical for this til			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstan			No
Are Vegetation, Soil, or Hydrology natu				eded, explain any a			
SUMMARY OF FINDINGS – Attach site map sh							tures, etc.
Hydrophytic Vegetation Present? Yes No _	_/						
Hydrophytic Vegetation Present? Yes No _ Hydric Soil Present? Yes No _			e Sampled		_	/	
Wetland Hydrology Present? Yes No _	_	with	n a Wetlan	d? Yes	'	No <u> </u>	
Remarks:							
VEGETATION – Use scientific names of plants.							
		Dominant	Indicator	Dominance Test	worksheet:		
		Species?		Number of Domin			
1				That Are OBL, FA			(A)
2				Total Number of D	Dominant		
3				Species Across A	ll Strata:	1_	(B)
4				Percent of Domin			
Herb Stratum (Plot size: 1m^2)		= Total Co	/er	That Are OBL, FA	CW, or FAC	: 100	(A/B)
1. <u>Avena barbata</u>	70	Υ	UPL	Prevalence Inde	x worksheet	t:	
2. Bromus hordeaceus	5		FACU	Total % Cove			-
3. <u>Hordeum murinum</u>				OBL species _			
4. <u>Centaurea solstitialis</u>			UPL	FACW species _			
5. <u>Carthamus lanatus</u>	5		<u>UPL</u>	FAC species _ FACU species _		· · · · · · · · · · · · · · · · · · ·	
Herb Stratum (Plot size: 1 m^2)		= Total Co	/er	UPL species _		x = 4 = 2 x = 5 = 4	
1		-		Column Totals:			.90 (B)
2						, ,	()
3						4.9	0
4				Hydrophytic Veg			
5				Dominance T			
6				Prevalence Ir Morphologica			unnorting
7						a separate s	
8		= Total Cov	uor.	Problematic I	Hydrophytic \	Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	100	- 10tal C0	761				
1				¹ Indicators of hyde be present, unless			
2				•	s disturbed t		J.
_		= Total Co	/er	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0	Biotic Cr	rust0		Present?	Yes	No <u></u>	
Remarks:							

(inches)	Matrix		Redox Features			
(11101100)	Color (moist)	<u></u> %	Color (moist) % Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 3/2	100		g	rav-loam	
8-16	10 YR 2/2	100		<u>cl</u>	ay loam_	
			educed Matrix, CS=Covered or Coate	d Sand Grain		ion: PL=Pore Lining, M=Matrix.
•	`	cable to all Li	RRs, unless otherwise noted.)			or Problematic Hydric Soils ³ :
Histoso	` '		Sandy Redox (S5)			ck (A9) (LRR C)
	Epipedon (A2) Histic (A3)		Stripped Matrix (S6)			ck (A10) (LRR B) Vertic (F18)
	en Sulfide (A4)		Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)			ent Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted Matrix (F3)			xplain in Remarks)
	uck (A9) (LRR D)	0)	Redox Dark Surface (F6)		Other (E.	xpiair iii Nemarks)
	ed Below Dark Surface	ce (A11)	Depleted Dark Surface (F7)			
	ark Surface (A12)	()	Redox Depressions (F8)		3Indicators of	hydrophytic vegetation and
·	Mucky Mineral (S1)		Vernal Pools (F9)			drology must be present,
	Gleyed Matrix (S4)				unless dist	urbed or problematic.
Restrictive	Layer (if present):					
,						
Depth (ir	nches):		<u> </u>	H	Hydric Soil P	resent? Yes No <u>√</u>
Remarks:				•		
IYDROLO	CV					
	761					
-	drology Indicators					
-			check all that apply)		Seconda	ary Indicators (2 or more required)
Primary Ind	drology Indicators		check all that apply) Salt Crust (B11)			ery Indicators (2 or more required) ter Marks (B1) (Riverine)
Primary Indi	drology Indicators		****		Wat	•
Primary Indi	rdrology Indicators icators (minimum of o water (A1) later Table (A2)		Salt Crust (B11)		Wat	ter Marks (B1) (Riverine)
Primary Indi Surface High W Saturat	rdrology Indicators icators (minimum of o water (A1) later Table (A2)	one required;	Salt Crust (B11) Biotic Crust (B12)		Wat Sed Drif	ter Marks (B1) (Riverine) liment Deposits (B2) (Riverine)
Primary Indi Surface High W Saturat Water M	rdrology Indicators icators (minimum of e Water (A1) rater Table (A2) ion (A3)	one required;	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Living Roots (Wat Sed Drif Dra	ter Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10)
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Project/Site: Anderson 53	(City/Count	y: <u>Sonoma</u>	County	San	npling Dat	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	CA San	npling Poir	nt:	28
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, T	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	ef (concave,	convex, none): m	ixed	;	Slope (%)	<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratum				-				
Are climatic / hydrologic conditions on the site typical for this			,					
	-						./ N	
Are Vegetation, Soil, or Hydrology sig				'Normal Circumsta				
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(If ne	eded, explain any	answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing	samplii	ng point l	ocations, tran	sects, im	portant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	1							
Hydric Soil Present? Yes No			he Sampled					
Wetland Hydrology Present? Yes No		wit	hin a Wetlar	nd? Ye	s	No <u></u>		
Remarks:								
VEGETATION – Use scientific names of plants								
	Absolute % Cover		t Indicator Status	Dominance Tes				
1				Number of Dom That Are OBL, F			0	(Δ)
2.								(71)
3.				Total Number of Species Across			1	(B)
4.								(5)
		= Total C		Percent of Domi That Are OBL, F			0.00	(A/B)
Herb Stratum (Plot size: 1m^2)						-	0.00	(700)
1. <u>Avena barbata</u>			UPL	Prevalence Ind				
2. Bromus hordeaceus			FACU	Total % Cov			tiply by:	
3. Elymus caput-medusae		N		OBL species				
4. <u>Carthamus lanatus</u>	5	N	UPL	FACW species				
5				FAC species FACU species				_
Herb Stratum (Plot size: 1 m^2)		= Total C	over	UPL species		_		_
1				Column Totals:				— (B)
2.				Column Totals.	100	_ (A) _	465	(D)
3.				Prevalence	e Index = B	/A =	4.85	_
4				Hydrophytic Ve	egetation In	dicators:		
5				Dominance				
6				Prevalence				
7				Morphologic	cal Adaptatio	ons¹ (Provi	de suppo	rting
8				Problemation	Remarks or o		,	
Manda Vina Obraham (Dlataina)	100	= Total C	over	Floblematic	, i iyulopiiyii	vegetati	JII (Expla	III 1 <i>)</i>
Woody Vine Stratum (Plot size:)				¹ Indicators of hy	dric soil and	wetland h	vdrology	must
1				be present, unle				muot
2		= Total C		Hydrophytic				
				Vegetation			,	
% Bare Ground in Herb Stratum0 % Cover of	of Biotic Ci	rust	U	Present?	Yes	No		
Remarks:								

D-14	Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Features % Type	Loc ²	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix, logical coal in LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1) Sandy Redox (S5) History (A1) Sandy Redox (S5) History (A1) Sandy Redox (B1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Queded Vertic (F18) Red Queded Vertic (F18) Red Queded Vertic (F18) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 om Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Dark Surface (F8) Depleted Dark Surface (F8) Perpleted Dark Surface (F9) Thick Dark Surface (A12) Redox Dark Surface (F9) Perpleted		-				<u> </u>	_	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)	-14	10 YK 2/2		10 YK 3/3			IOdili	mixed matrix; faint mottles
Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)								
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosci (A1)								
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)								
Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histo Epipedon (A2) Stripped Matrix (S8) 2 cm Muck (A10) (LRR B) Black Histic (A3) 2 cn Muck (A10) (LRR B) Black Histic (A3) 4 comy Oleyed Matrix (F2) Reduced Vertic (F18) Hydrogen Sulfide (A4) 5 cm Vertic (F18) Hydrogen Sulfide (A4) 5 cm Vertic (F18) Completed Dark (A5) (LRR C) 5 cm Vertic (F18) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Wernal Pools (F9) Wernal Pools (F9) Sandy Gleyed Matrix (S4) Sestrictive Layer (if present): Type: Depth (inches): Wernal Hydrology Indicators: Infinary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Surface Water (A1) Solit Crust (B12) Scaturation (A3) Water Marks (B1) (Monriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Monriverine) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Monriverine) Presence of Reduced fron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C Init (B12) Shallow Aquitard (D3) Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Jaturation Present? Yes No Depth (inches):						ated Sand G		
Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Musck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Roby Loamy Cleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Musck (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) Indicators of hydrophytic vegetation and wetland hydrology must be present, sandy Gleyed Matrix (S4) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Type: Depth (inches): Surface Water (A1) Salt Crust (B11) Water Table (A2) Biotic Crust (B12) Secondary Indicators (2 or more required). 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 (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Monriverine) Presence of Reduced from (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C8) 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) Ield Observations: urface Water Present? Yes No Depth (inches): dater Table Present? Yes No Depth (inches): dater Table Present? Yes No Depth (inches): dater Table Present? Yes No Depth (inches): describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	•	`	ioubio to un	•	•			•
Black Histic (A3)		` '		-				
Hydrogen Sulfide (A4)								
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) Wetnal Pools (F9) Wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:		` '			• , ,			` ,
1 cm Muck (A9) (LRR D)			(C)				·	
Depleted Below Dark Surface (A11)			. • ,				00101	(Explain in Fernance)
Thick Dark Surface (A12)			ace (A11)		. ,			
Sandy Mucky Mineral (S1)			, ,				³ Indicators	s of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:					. ,			
Type:	-							
Popth (inches):								
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Sutration (A3) Water Marks (B1) (Riverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Roriverine) Sediment Deposits (B2) (Roriverine) Sediment Deposits (B2) (Roriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Privaria) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Privaria) Sedim	Type:			<u></u>				
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salit Crust (B11) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Saturation (A3) Water Marks (B1) (Nonriverine) Saturation (A3) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Saturation (A3) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C8) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (in	ches):					Hydric Soi	I Present? Yes No
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High Water Table (A2)	Primary Indi	cators (minimum of	one require	d; check all that app	ly)			
Aquatic Invertebrates (B13)	Surface	Water (A1)		Salt Crus	t (B11)			
Water Marks (B1) (Nonriverine)	High Wa	ater Table (A2)		Biotic Cru	ıst (B12)		5	Sediment Deposits (B2) (Riverine)
Sediment Deposits (B2) (Nonriverine)	Saturati	on (A3)		Aquatic Ir	vertebrates (B13)	[Orift Deposits (B3) (Riverine)
Drift Deposits (B3) (Nonriverine)	Water M	farks (B1) (Nonrive	erine)	Hydroger	Sulfide Odor (C1)	[Orainage Patterns (B10)
Surface Soil Cracks (B6)	Sedime	nt Deposits (B2) (N	onriverine)	Oxidized	Rhizospheres alo	ng Living Roo	ots (C3) [Ory-Season Water Table (C2)
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 Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Period Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Drift De	posits (B3) (Nonriv	rerine)	Presence	of Reduced Iron	(C4)	(Crayfish Burrows (C8)
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 _✓ Depth (inches): Saturation Present? Yes No _✓ Depth (inches): Signification Present? Yes No _✓ Depth (inches): Security Office Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface	Soil Cracks (B6)		Recent In	on Reduction in T	illed Soils (C6	S) S	Saturation Visible on Aerial Imagery (C9
Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundati	ion Visible on Aeria	l Imagery (B	7) Thin Muc	k Surface (C7)		8	Shallow Aquitard (D3)
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water-S	Stained Leaves (B9))	Other (Ex	plain in Remarks)		F	FAC-Neutral Test (D5)
Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): Wetland Hydrology Present? Yes No _ ✓ _ Saturation Present? Yes No _ ✓ _ Depth (inches): Wetland Hydrology Present? Yes No _ ✓ _ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				<u> </u>			<u> </u>	· , ,
Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): Wetland Hydrology Present? Yes No _ ✓ _ Depth (inches): Depth (inches): Wetland Hydrology Present? Yes No _ ✓ _ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		er Present?	Yes	No ✓ Depth (in	nches):			
Saturation Present? Yes No / Depth (inches): Wetland Hydrology Present? Yes No / Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Wat							
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Present?			, -			D (0.)/
	Water Table		·		l \.			
Remarks:	Water Table Saturation P (includes cap	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No
	Water Table Saturation P (includes ca	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No <u>v</u>
	Water Table Saturation P (includes cal Describe Re	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No <u>v</u>
	Water Table Saturation P (includes ca	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No <u>v</u>
	Water Table Saturation P (includes cal Describe Re	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No _V
	Water Table Saturation P (includes cal Describe Re	resent? pillary fringe)	Yes	No ✓ Depth (in				gy Present? Yes No <u>v</u>

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: University District, LLC				State: CA	Sampling Point: 29
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, Tov	wnship, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixed	Slope (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666735	Datum: WSG84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slope				-	
Are climatic / hydrologic conditions on the site typical for this ti			,		
Are Vegetation, Soil, or Hydrology sign	-				oresent? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology nati				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map sh					
Hydrophytic Vegetation Present? Yes ✓ No _					
Hydric Soil Present? Yes ✓ No			e Sampled		, N-
Wetland Hydrology Present? Yes ✓ No		Withi	n a Wetlan	id? Yes <u>v</u>	No
Remarks:		•			
VEGETATION – Use scientific names of plants	i_				
·		Dominant	Indicator	Dominance Test work	sheet:
		Species?		Number of Dominant S	pecies
1				That Are OBL, FACW,	or FAC:3 (A)
2				Total Number of Domin	
3				Species Across All Stra	3 (B)
4		= Total Cov		Percent of Dominant Sp	
Herb Stratum (Plot size: 1m^2)		- Total Cov	761	I nat Are OBL, FACW,	or FAC:100 (A/B)
1. Festuca perennis		Y	FAC	Prevalence Index wor	
2. Rumex pulcher			FAC		Multiply by:
3. <u>Hordeum marinum ssp. gussoneanum</u>		Y	<u>FAC</u>		x 1 = 6
4. Lythrum hyssopifolium) x 2 = 0
5. <u>Festuca bromoides</u>		= Total Cov	FAC_	FACU species5	2
Herb Stratum (Plot size: 1 m^2)		- 10tai C0	/ei	UPL species	
1. <u>Avena barbata</u>	5	N	UPL	Column Totals: 11	
2. Pleuropogon californicus	5	N	OBL		
3. <u>Bromus hordeaceus</u>		N	FACU		x = B/A =3.06
4. <u>Carduus pycnocephalus</u>		N	UPL	Hydrophytic Vegetation	
5				✓ Dominance Test is Prevalence Index is	
6					s \(\) sptations \(\) (Provide supporting
7					s or on a separate sheet)
8		= Total Cov		Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	110	- Total Cov	761		
1				¹ Indicators of hydric soi be present, unless distu	il and wetland hydrology must
2				, ,	
-		= Total Cov	/er	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 2	f Biotic Cr	rust0			s <u>√</u> No
Remarks:					

Profile Desc	cription: (Describe	to the de	oth needed to docu	ment the	indicator	or confirn	n the absence	e of indicators.)
Depth	Matrix	%		ox Feature		Loc ²	Tauduma	Damada
(inches)	Color (moist)		Color (moist)		Type ¹		Texture	Remarks
0-8	10 YR 3/3	70	10 YR 4/3	30	<u>C</u>	_m	clay loam	
8-12	10 YR 3/3	50	10 YR 4/3	30	<u>C</u>	<u>m</u>	clay loam	large cobbles; faint mottles
			10 YR 4/6	20		_m	clay loam	large cobbles
				_				
			=Reduced Matrix, C			ed Sand G		cation: PL=Pore Lining, M=Matrix.
_		cable to all	LRRs, unless othe		ied.)			s for Problematic Hydric Soils ³ :
Histosol	oipedon (A2)		Sandy Red Stripped M					Muck (A9) (LRR C) Muck (A10) (LRR B)
	istic (A3)		Loamy Mu		al (F1)			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-				Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M	1atrix (F3)			Other	(Explain in Remarks)
	uck (A9) (LRR D)		✓ Redox Dar		. ,			
	d Below Dark Surfac	ce (A11)	Depleted D				3Indicators	of budrophytic vegetation and
	ark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		(ГО)			of hydrophytic vegetation and hydrology must be present,
	Gleyed Matrix (S4)		vernari oc	//o (1 0)				disturbed or problematic.
	Layer (if present):							•
Type:								
Depth (in	ches):						Hydric Soi	I Present? Yes <u>√</u> No
Remarks:								
HYDROLO	CV							
	drology Indicators							
_			ed; check all that app	lv/\			2000	ndary Indicators (2 or more required)
	,	one require						ndary Indicators (2 or more required)
Surface	ater Table (A2)		Salt Crust Biotic Cru	` '				Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Saturation	, ,		Aquatic Ir		es (B13)			Orift Deposits (B3) (Riverine)
<u> </u>	larks (B1) (Nonrive i	rine)	Hydrogen					Orainage Patterns (B10)
	nt Deposits (B2) (No	•			, ,	Livina Roo		Ory-Season Water Table (C2)
	posits (B3) (Nonrive	,	Presence		_	-		Crayfish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro					Saturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (E	37) Thin Mucl	k Surface	(C7)		8	Shallow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Ex	plain in Re	emarks)		F	FAC-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	/es	No <u>✓</u> Depth (in	nches):		_		
Water Table	Present?	res	No <u>✓</u> Depth (in	nches):		_		
Saturation P		/es	No <u>✓</u> Depth (ir	nches):		Wetl	land Hydrolog	yy Present? Yes <u>√</u> No
(includes cap		n dalide m	onitoring well, aerial	nhotos n	revious ins	nections	if available:	
Describe ive	corded Data (Stream	i gauge, iii	oriitoring well, aeriai	priotos, p	revious iris	pections),	ii avallable.	
Remarks:								
ixemaiks.								
ĺ								

Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	Sa	ampling Dat	te: June	2, 2016
Applicant/Owner: University District, LLC				State:	CA Sa	ampling Poi	nt:	30
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u>t</u>	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mi	xed		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 0 to 5 % slop								
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology si	-			Normal Circumsta			√ N	0
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s			•					s, etc.
Hydrophytic Vegetation Present? Yes No	· 🗸	1- 4	0 1 1					
Hydric Soil Present? Yes No			he Sampled nin a Wetlar			No <u></u>	/	
Wetland Hydrology Present? Yes No	√	Witi	iiii a vvetiai	id: Tes	·	NO <u>v</u>		
Remarks:								
VEGETATION – Use scientific names of plant	s.							
		Dominan		Dominance Tes	t worksh	eet:		
			Status	Number of Domi				
1				That Are OBL, F.	ACW, or F	-AC:	1	(A)
2				Total Number of			2	(D)
3 4				Species Across	Ali Strata:		3	(B)
		= Total Co		Percent of Domin			U 33	(A /D)
Herb Stratum (Plot size: 1m^2)		_					0.55	(A/D)
1. <u>Festuca perennis</u>			FAC	Prevalence Inde				
2. <u>Avena barbata</u>			UPL	Total % Cov				
3. <u>Hordeum marinum ssp. gussoneanum</u>			FAC	OBL species				
4. <u>Festuca bromoides</u> 5. Rumex pulcher	15 2		FAC	FACW species FAC species				
5. Numex pulcher		= Total Co	FACW	FACU species				
Herb Stratum (Plot size: 1 m^2)		_ = 10ta1 Ct	ovei	UPL species				
1. Elymus caput-medusae	5	N	UPL	Column Totals:				
2. <u>Bromus hordeaceus</u>			FACU					_ , ,
3. <u>Carduus pycnocephalus</u>			-	Prevalence				_
4				Hydrophytic Ve	_			
5				Dominance				
6							vide sunno	rtina
7						on a sepai		
8		= Total Co	avor.	Problematic	Hydrophy	rtic Vegetat	ion¹ (Expla	in)
Woody Vine Stratum (Plot size:)	103	_ = 10tal Ct	ovei					
1				¹ Indicators of hyd be present, unles				must
2				· · ·	ss disturbe	ed of proble	mauc.	
		= Total Co	over	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum	of Biotic C	rust	0	Present?	Yes _	No	<u> </u>	
Remarks:				1				

		to the de	oth needed to docur			or confirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	ES Tyne ¹	Loc²	Texture	Remarks
0-6	10 YR 3/3	100	Color (moist)				clay loam	Remarks
6-12		60	10 YR 2/2	40				faint mottles
0-12	10 YR 3/3	60	10 YK 2/2	40	<u>_d</u>		clay laom	Taint motties
	-							
				-		·		
1Type: C=C	ncentration D=Den	letion PM	=Reduced Matrix, CS	S=Covere	ad or Coate	ad Sand G	raine ² l o	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless othe			ou ound o		for Problematic Hydric Soils ³ :
Histosol			Sandy Red		•			Muck (A9) (LRR C)
Histic Ep	pipedon (A2)		Stripped Ma	. ,				Muck (A10) (LRR B)
Black Hi	` '		Loamy Muc	-	. ,		Reduc	ced Vertic (F18)
	n Sulfide (A4)		Loamy Gley					arent Material (TF2)
	Layers (A5) (LRR (S)	Depleted M				Other	(Explain in Remarks)
	ick (A9) (LRR D) d Below Dark Surfac	e (A11)	Redox Dark		. ,			
	ark Surface (A12)	0 (7111)	Redox Dep		, ,		³ Indicators	of hydrophytic vegetation and
	lucky Mineral (S1)		Vernal Pool		` ,			hydrology must be present,
	lleyed Matrix (S4)						unless	listurbed or problematic.
Restrictive I	_ayer (if present):							
								
Depth (inc	ches):						Hydric Soil	Present? Yes No _✓
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
Primary Indic	ators (minimum of o	ne require	d; check all that appl	y)			Seco	ndary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			V	Vater Marks (B1) (Riverine)
High Wa	iter Table (A2)		Biotic Crus	st (B12)			s	Sediment Deposits (B2) (Riverine)
Saturation	on (A3)		Aquatic In	vertebrat	es (B13)		[Orift Deposits (B3) (Riverine)
	arks (B1) (Nonriver		Hydrogen	Sulfide C	Odor (C1)		0	Prainage Patterns (B10)
	nt Deposits (B2) (No				_	_		Ory-Season Water Table (C2)
	oosits (B3) (Nonrive	rine)	Presence		`	,		Crayfish Burrows (C8)
	Soil Cracks (B6)	·//	Recent Iro			d Soils (C		Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial I tained Leaves (B9)	magery (E	B7) Thin Muck Other (Exp				·	Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observ	. ,		Other (LX)	Jiaiii iii K	emarks)		'	AC-Neutral Test (D3)
Surface Water		A S	No ✓ Depth (in	ches).				
Water Table			No ✓ Depth (in					
Saturation Pr			No ✓ Depth (in				and Hydrolog	y Present? Yes No✓
(includes cap	oillary fringe)							y Fresent: Tes NOv
Describe Red	corded Data (stream	gauge, m	onitoring well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampli	ing Date: <u>Jı</u>	une 2, 2016
Applicant/Owner: University District, LLC				State: <u>CA</u>	Sampli	ing Point:	31
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, Tov	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixe	ed	Slope	· (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.66673	35	Datum:	WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,				_			
Are climatic / hydrologic conditions on the site typical for this ti			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstanc			No
Are Vegetation, Soil, or Hydrology nati				eded, explain any ar			
SUMMARY OF FINDINGS – Attach site map sh							tures, etc.
Hydrophytic Vegetation Present? Yes No _	1						
Hydrophytic Vegetation Present? Yes No _ Hydric Soil Present? Yes No _			e Sampled			. /	
Wetland Hydrology Present? Yes No		withi	in a Wetlan	d? Yes_	N	o <u> </u>	
Remarks:		I					
VEGETATION – Use scientific names of plants							
<u> </u>		Dominant	Indicator	Dominance Test v	worksheet:		
		Species?		Number of Domina			
1				That Are OBL, FAC		1	(A)
2				Total Number of D	ominant		
3				Species Across All	Strata:	2	(B)
4				Percent of Domina			
Herb Stratum (Plot size: 1m^2)		= Total Cov	/er	That Are OBL, FAC	CW, or FAC:	50_	(A/B)
1. <u>Avena barbata</u>	35	Υ	UPL	Prevalence Index	worksheet:		
2. Bromus hordeaceus	15	N	FACU	Total % Cover			-
3. <u>Festuca perennis</u>		<u> </u>		OBL species			
4. <u>Carthamus lanatus</u>	1	N	UPL	FACW species			
5				FAC species FACU species			
Herb Stratum (Plot size: 1 m^2)		= Total Cov	/er	UPL species		$x = \frac{0}{x}$ $x = \frac{18}{x}$	
1				Column Totals:			90 (B)
2							
3				Prevalence In			<u> </u>
4				Hydrophytic Vege		ators:	
5				Dominance Te			
6				Prevalence Inc Morphological		o ¹ (Provido su	upporting
7						a separate sh	
8		= Total Cov		Problematic H	ydrophytic V	egetation ¹ (E	Explain)
Woody Vine Stratum (Plot size:)	101	- 10tai C0	/ei				
1				¹ Indicators of hydri			
2				be present, unless	disturbed of	problematic	
-		= Total Cov	/er	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum	f Biotic Cr	ust0		Present?	Yes	No <u></u> ✓	
Remarks:							

	cription: (Describe	to the dep				or confirn	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Features %	Type ¹	Loc ²	Texture	Remarks
0-14	-	50	10 YR 3/3					mixed matrix; faint mottles
							1,	,
	-		•					
			-					
• •	oncentration, D=Dep					d Sand G		cation: PL=Pore Lining, M=Matrix.
-	Indicators: (Applic	able to all			ed.)			for Problematic Hydric Soils ³ :
Histosol	` '		Sandy Red	. ,				Muck (A9) (LRR C)
Black Hi	oipedon (A2)		Stripped M Loamy Mud		(F1)			Muck (A10) (LRR B) ed Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-				arent Material (TF2)
	d Layers (A5) (LRR (C)	Depleted M	-	(- –)			(Explain in Remarks)
1 cm Mu	ıck (A9) (LRR D)		Redox Dar	k Surface (F6)			
	d Below Dark Surfac	e (A11)	Depleted D					
	ark Surface (A12)		Redox Dep		- 8)			of hydrophytic vegetation and
	Mucky Mineral (S1) Bleyed Matrix (S4)		Vernal Poo	is (F9)				hydrology must be present, listurbed or problematic.
	Layer (if present):						uniess u	isturbed of problematic.
	, ,							
	ches):						Hydric Soil	Present? Yes No _ ✓_
Remarks:							,	
HYDROLO	GV .							
	drology Indicators:	1						
_	cators (minimum of c		d: check all that ann	lv)			Secon	ndary Indicators (2 or more required)
	Water (A1)	one require	Salt Crust					Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru	` ,				rediment Deposits (B2) (Riverine)
Saturation			Aquatic In		s (B13)			Prift Deposits (B3) (Riverine)
	larks (B1) (Nonriver	ine)	Hydrogen		` '			Prainage Patterns (B10)
	nt Deposits (B2) (No					Living Roo		Pry-Season Water Table (C2)
Drift Dep	oosits (B3) (Nonrive	rine)	Presence		_	_		crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	on Reduction	on in Tilled	d Soils (Co	6) S	aturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B	7) Thin Mucl	s Surface (C7)		s	hallow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Ex	plain in Re	marks)		F	AC-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present? Y	'es	No <u>✓</u> Depth (in	iches):		_		
Water Table			No <u>✓</u> Depth (in					
Saturation P	resent? Y	'es	No <u>✓</u> Depth (in	iches):		Wetl	land Hydrolog	y Present? Yes No✓
(includes cap Describe Re	oillary fringe) corded Data (stream	n dauge m	onitoring well aerial	photos pre	evious ins	pections)	if available:	
Docombo I to	oordod Bata (otrodir	r gaago, m	ormorning won, donar	priotoo, pri	311000 1110	pootiono,,	ii availabio.	
Remarks:								

Project/Site: Anderson 53	(City/County:	Sonoma	County	Samp	oling Date: _	June 2, 2016
Applicant/Owner: University District, LLC				State:	A Samp	oling Point: _	31E
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, To	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mix	ed	Slop	oe (%): <5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.6667	735	Datur	n: WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,	drained	, 0 to 2% s	lopes	NWI cla	assification:	PEM2/Sea	sonal
Are climatic / hydrologic conditions on the site typical for this ti			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstan			' No
Are Vegetation, Soil, or Hydrology nati				eded, explain any a			
SUMMARY OF FINDINGS – Attach site map sh							atures, etc.
Hydrophytic Vegetation Present? Yes No _	ſ						
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No			e Sampled			/	
Wetland Hydrology Present? Yes No	_	with	in a Wetlan	id? Yes	'	No <u> </u>	
Remarks:		l .					
VEGETATION – Use scientific names of plants							
		Dominant	Indicator	Dominance Test	worksheet:		
		Species?		Number of Domin			
1				That Are OBL, FA			(A)
2				Total Number of D	Dominant		
3				Species Across A	III Strata:	2	(B)
4				Percent of Domin			_
Herb Stratum (Plot size: 1m^2)		= Total Co	ver	That Are OBL, FA	ACW, or FAC	: 0.0	<u>0</u> (A/B)
1. <u>Avena barbata</u>	60	Y	UPL	Prevalence Inde	x worksheet	t:	
2. Bromus hordeaceus		Y	FACU	Total % Cove			-
3. <u>Festuca perennis</u>			FAC	OBL species _			
4. <u>Convolvulus arvensis</u>	5	N	<u>UPL</u>	FACW species _			
5				FAC species _			
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU species _ UPL species _			325
1				Column Totals:			460 (B)
2							()
3				Prevalence			<u>50</u>
4				Hydrophytic Veg			
5				Dominance T			
6				Prevalence Ir Morphologica			eunnorting
7						a separate	
8		= Total Co	····	Problematic I	Hydrophytic \	Vegetation ¹	(Explain)
Woody Vine Stratum (Plot size:)	100	_ 10tal C0	vei				
1				¹ Indicators of hyde be present, unless			
2					s disturbed t	л ргоыеттац	
-		= Total Co	ver	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0	f Biotic Cr	rust0		Present?	Yes	No	/
Remarks:				ı			

	cription: (Describe	to the depti				or confir	m the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-7	10 YR 3/2	100	COIOI (IIIOISI)		Турс		loam	Temans
								/ ground
7-14	10 YR 3/2	100					<u>loam</u>	w/ gravel
							·	
	-							
							· - <u></u>	
	-							
1			Dadward Matrice Of		0 1 -	-1.01.0	21	
	oncentration, D=Dep Indicators: (Applic					ed Sand G		s for Problematic Hydric Soils ³ :
Histosol		able to all E	Sandy Red		,u.,			Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma	. ,				Muck (A10) (LRR B)
	istic (A3)		Loamy Muc		(F1)		·	ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle					Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M	•	` '			(Explain in Remarks)
	uck (A9) (LRR D)	,	Redox Darl	k Surface (F6)			,
	d Below Dark Surfac	e (A11)	Depleted D	,	,			
Thick Da	ark Surface (A12)		Redox Dep	ressions (F	- 8)		³ Indicators	s of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland	I hydrology must be present,
	Gleyed Matrix (S4)						unless	disturbed or problematic.
	Layer (if present):							
Depth (in	ches):						Hydric So	il Present? Yes No _✓_
Remarks:								
HYDROLO								
Wetland Hy	drology Indicators:	:						
Primary Indi	cators (minimum of o	one required;	check all that appl	y)			Seco	ondary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			'	Water Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Cru	st (B12)			:	Sediment Deposits (B2) (Riverine)
Saturati	on (A3)		Aquatic In	vertebrates	s (B13)		'	Drift Deposits (B3) (Riverine)
Water M	Marks (B1) (Nonrive i	rine)	Hydrogen	Sulfide Od	lor (C1)			Drainage Patterns (B10)
Sedime	nt Deposits (B2) (No	nriverine)	Oxidized F	Rhizospher	es along	Living Ro	ots (C3)	Dry-Season Water Table (C2)
Drift De	posits (B3) (Nonrive	rine)	Presence	of Reduce	d Iron (C4	1)		Crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reductio	on in Tille	d Soils (C	6) ;	Saturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)) Thin Muck	Surface (C7)		;	Shallow Aquitard (D3)
Water-S	Stained Leaves (B9)			plain in Re				FAC-Neutral Test (D5)
Field Obser	vations:				<u> </u>		<u> </u>	
Surface Wat	ter Present?	'es N	o <u>√</u> Depth (in	ches):				
Water Table			o ✓ Depth (in					
Saturation P			o ✓ Depth (in				land Hydrolo	gy Present? Yes No _ ✓
(includes ca	pillary fringe)							,
Describe Re	corded Data (stream	n gauge, mor	nitoring well, aerial	photos, pre	evious ins	pections)	, if available:	
Remarks:								

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	ampling Dat	e: June	2, 2016
Applicant/Owner: University District, LLC				State: (CA Sa	ampling Poi	nt:	33
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mi	xed		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop				-				
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology sig	-			'Normal Circumsta			√ N	0
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s								s, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydric Soil Present? Yes ✓ No			e Sampled		/	No		
Wetland Hydrology Present? Yes ✓ No		with	in a Wetlaı	id? Yes	s <u> </u>	NO		
Remarks:		*						
VEGETATION – Use scientific names of plants	<u> </u>							
<u> </u>		Dominant	Indicator	Dominance Tes	t workshi	oet.		
		Species?		Number of Domi				
1				That Are OBL, F			2	(A)
2				Total Number of	Dominant			
3				Species Across	All Strata:		2	(B)
4				Percent of Domi				
Herb Stratum (Plot size: 1m^2)		= Total Co	ver	That Are OBL, F.	ACW, or F	FAC:	100	(A/B)
1. <u>Festuca perennis</u>	50	Y	_FAC	Prevalence Inde	ex worksh	neet:		
2. Glyceria occidentalis	20		OBL	Total % Cov				
3. <u>Eleocharis macrostachya</u>			OBL	OBL species				
4. Cyperus eragrostis			FACW	FACW species				
5. Polypogon monspeliensis	5		FACW	FAC species FACU species				_
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	UPL species				_
1				Column Totals:				
2						_ , , _		_ (5)
3				Prevalence				
4				Hydrophytic Ve	_			
5				✓ Dominance				
6				✓ Prevalence Morphologic			ide sunno	rtina
7						on a separ		
8		= Total Co	vor	Problematic	Hydrophy	tic Vegetati	on¹ (Expla	iin)
Woody Vine Stratum (Plot size:)	107	Total Co	VCI					
1				¹ Indicators of hyd be present, unles				must
2				· ·	ss disturbe	ed of proble	mauc.	
		= Total Co	ver	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 2	of Biotic C	rustC)	Present?	Yes _	✓ No	·	
Remarks:				1				

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirr	n the absence	of indicators.)
Depth (inches)	Matrix	%		ox Feature	S Type ¹	_Loc ²	Toyturo	Remarks
(inches)	Color (moist)		Color (moist)				Texture	
0-12	10 YR 4/3	45	10 YR 2/2	30	<u>d</u>	<u>m</u>		cobbles; faint mottles
			10 YR 3/2	20	d	<u>m</u>	clay loam	cobbles; faint mottles
	_		10 YR 3/6	>5	С	<u>m</u>	clay loam	cobbles
				_				
	oncentration, D=Dep					ed Sand G		cation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all			ea.)			s for Problematic Hydric Soils ³ :
Histosol	pipedon (A2)		Sandy Red Stripped M					Muck (A9) (LRR C) Muck (A10) (LRR B)
I — ·	istic (A3)		Loamy Mu		al (F1)			ced Vertic (F18)
I —	en Sulfide (A4)		Loamy Gle	-				Parent Material (TF2)
Stratified	d Layers (A5) (LRR	C)	Depleted N	latrix (F3)			Other	(Explain in Remarks)
	uck (A9) (LRR D)		✓ Redox Dar		. ,			
	d Below Dark Surfac	e (A11)	Depleted D				31	
	ark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		F8)			of hydrophytic vegetation and hydrology must be present,
	Bleyed Matrix (S4)		veman oc	13 (1 3)				disturbed or problematic.
	Layer (if present):							·
Type:								
Depth (in	ches):						Hydric Soi	I Present? Yes <u>√</u> No
Remarks:								
	CV							
HYDROLO								
-	drology Indicators:						_	
	cators (minimum of o	ne require						ndary Indicators (2 or more required)
✓ Surface	` ,		Salt Crus	` '			· · · · · · · · · · · · · · · · · · ·	Water Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru		o (D12)			Sediment Deposits (B2) (Riverine)
✓ Saturation	on (A3) larks (B1) (Nonriver	ino)	Aquatic Ir Hydrogen					Orift Deposits (B3) (Riverine) Orainage Patterns (B10)
	nt Deposits (B2) (No	•				Living Po		Dry-Season Water Table (C2)
	posits (B3) (Nonrive		Presence		_	_		Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Ire					Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (B						Shallow Aquitard (D3)
	tained Leaves (B9)	-3-7(Other (Ex					FAC-Neutral Test (D5)
Field Obser			<u>·</u>	-				
Surface Wat	er Present? Y	′es <u> </u>	No Depth (ir	nches): 1				
Water Table			No <u>✓</u> Depth (ir					
Saturation P			No Depth (ir				land Hydrolog	y Present? Yes √ No
(includes car	oillary fringe)						, ,	
Describe Re	corded Data (stream	n gauge, mo	onitoring well, aerial	photos, pi	evious ins	spections),	if available:	
Remarks:								

Project/Site: Anderson 53	(City/County	: Sonoma	County	Sa	mpling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	:A Sa	mpling Poir	nt:	34
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	ked	<	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop	es			NWI c	lassificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology sig	gnificantly	disturbed?	Are '	'Normal Circumstar	nces" pres	ent? Yes_	✓_ N	о
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s			g point l	ocations, trans	sects, ir	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	✓	1- 41-	0 !!					
Hydric Soil Present? Yes No			ie Sampled iin a Wetlar			No <u></u>		
Wetland Hydrology Present? Yes No		With	iii a wetiai	id: Tes	·	140		
Remarks:								
VEGETATION – Use scientific names of plants	s.							
<u> </u>		Dominant	Indicator	Dominance Tes	t workshe	et:		
		Species?		Number of Domir	nant Spec			
1				That Are OBL, F	ACW, or F	AC:	0	(A)
2				Total Number of			_	
3				Species Across A	All Strata:		2	(B)
4		= Total Co		Percent of Domir			0.00	(4.45)
Herb Stratum (Plot size: 1m^2)		- Total Co	WEI	That Are OBL, F	ACW, or F	AC:	0.00	(A/B)
1. <u>Avena barbata</u>	35	Y	UPL	Prevalence Inde	x worksh	eet:		
2. Hordeum murinum	5		FACU	Total % Cov				
3. <u>Centaurea calcitrapa</u>				OBL species _				
4. Bromus hordeaceaus			FACU	FACW species				
5. <u>Convolvulus arvensis</u>	3		<u>UPL</u>	FAC species		x3=_ _ x4=_		_
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU species _ UPL species _		x4=_ x5=_		_
1. Festuca perennis	15	N	FAC	Column Totals:				
2						_ ('') _		_ (5)
3				Prevalence			4.42	_
4				Hydrophytic Ve	_			
5				Dominance				
6				Prevalence I			do ouppo	tina
7				Morphologication Mo	ai Adapiai emarks or	on a separ	ate suppoi	ung
8		= Total Co		Problematic	Hydrophy	tic Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)		= Total Co	ivei					
1				¹ Indicators of hyd				must
2				be present, unles	ss disturbe	a or proble	matic.	
		= Total Co	ver	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum5	of Biotic C	rust()	Present?	Yes _	No	✓	
Remarks:				ı				

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

Depth	Matrix			Features						
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype ¹	Loc ²	Texture	-	Remarks	
0-14	10 YR 3/2	100					clay loam	w/ gravel		
							·			
1- 0.0							. 2.			
	ioncentration, D=Deplication					Sand Gr			ore Lining, M=Ma atic Hydric Soils	
-		able to all i			1				•	٠.
Histoso	` '		Sandy Redo	, ,				/luck (A9) (LR /luck (A10) (L l		
	pipedon (A2) istic (A3)		Stripped Ma Loamy Muck		1)			ed Vertic (F18		
	en Sulfide (A4)		Loamy Gley					arent Material		
	d Layers (A5) (LRR	C)	Depleted Ma		-,			(Explain in Re	, ,	
	uck (A9) (LRR D)	,		Surface (F6)				` '	,	
	d Below Dark Surface	e (A11)	Depleted Da	rk Surface (F	- 7)					
Thick D	ark Surface (A12)		Redox Depr	, ,					c vegetation and	
-	Mucky Mineral (S1)		Vernal Pools	s (F9)					st be present,	
	Gleyed Matrix (S4)						unless d	isturbed or pre	oblematic.	
	Layer (if present):									
Type:										,
Depth (in	iches):						Hydric Soil	Present?	Yes N	∘
Remarks:										
HYDROLO	GY									
	drology Indicators									1
_	cators (minimum of		: check all that apply	·\			Socor	ndary Indicato	rs (2 or more red	uirod)
	•	<u>Jile required</u>						-	*	<u>(uireu)</u>
	Water (A1)		Salt Crust (31) (Riverine)	
	ater Table (A2)		Biotic Crus		112)				osits (B2) (Riveri	ne)
Saturati	` '	·ina)	Aquatic Inv						B3) (Riverine)	
	Marks (B1) (Nonrive	•	Hydrogen S		. ,	ivina Boo		rainage Patte		
	nt Deposits (B2) (No				_	-		-	ater Table (C2)	
	posits (B3) (Nonrive Soil Cracks (B6)	ille)		of Reduced In TReduction i			· · · · · · · · · · · · · · · · · · ·	rayfish Burrov	ws (Co) ble on Aerial Ima	gony (CQ)
	ion Visible on Aerial	Imagory (P7				30113 (00		hallow Aquita		igery (Ca)
	Stained Leaves (B9)	illiagery (D7	· —	lain in Rema			· 	AC-Neutral Te	, ,	
Field Obser			Other (Exp		iko)			AC-Neutral Te	231 (D3)	
Surface Wat		/oo N	No _ ✓ _ Depth (inc	hoo): 0						
		· · · · · · · · · · · · · · · · · · ·		,		-				
Water Table			No _ ✓ Depth (inc			-		D 10		
Saturation P	'resent'? pillary fringe)	'es N	lo <u>√</u> Depth (inc	hes): <u>U</u>		_ Wetia	and Hydrolog	y Present?	Yes N	o <u> </u>
	ecorded Data (stream	n gauge, mo	nitoring well, aerial p	hotos, previo	ous insp	ections),	if available:			
	,	, <u>,</u> ,		·		,,				
Remarks:										

Project/Site: Anderson 53	(City/County	y: <u>Sonoma</u>	County	Sa	mpling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State: <u>C</u>	A Sa	mpling Poin	t:	35
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfie	ld	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	ked		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.3</u>	342442		_ Long: <u>-122.666</u>	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slo	opes			NWI cl	assificatio	n: <u>PEM2/</u> S	Seasonal	
Are climatic / hydrologic conditions on the site typical for thi			,					
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are '	"Normal Circumstar	nces" pres	ent? Yes_	√ N	ο
Are Vegetation, Soil, or Hydrology				eeded, explain any a				
SUMMARY OF FINDINGS – Attach site map			ng point l	ocations, trans	sects, in	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes✓	No							
Hydric Soil Present? Yes ✓ N			he Sampled nin a Wetla		/	No		
Wetland Hydrology Present? Yes <u>√</u> N	lo	Witi	iiii a vvetiai	nu? res	·	NO		
Remarks:								
VEGETATION – Use scientific names of plan	nts.							
		Dominant	t Indicator	Dominance Test	t workshe	et:		
Tree Stratum (Plot size:)	% Cover			Number of Domir	nant Speci			
1				That Are OBL, FA	ACW, or F.	AC:	2	(A)
2				Total Number of			2	(5)
3				Species Across A	All Strata:		2	(B)
4		= Total Co		Percent of Domir			100	(A /D)
Herb Stratum (Plot size: 1m^2)		_ rotar oc	370.	That Are OBL, FA	ACVV, OF F.	AC	100	(A/b)
1. <u>Festuca perennis</u>			FAC	Prevalence Inde				
2. <u>Convolvulus arvensis</u>	_ 5			Total % Cove				
3. <u>Hordeum marinum ssp. gussoneanum</u>				OBL species _				
4. Avena barbata 5. Polypogon monspeliensis	<u>5</u> 10		<u>UPL</u> FACW	FACW species _ FAC species _				
5. Folypogon monspellensis		= Total Co		FACU species		x3= x4=		_
Herb Stratum (Plot size: 1 m^2)		_ = 10ta1 Ct	Jvei	UPL species				_
1. Rorippa curvisiliqua	15	N	OBL	Column Totals:				
2						_ , , _	2.02	
3				Prevalence			2.82	
4				Hydrophytic Veg ✓ Dominance	_			
5				✓ Prevalence I				
6				Morphologica			de suppoi	rting
8.				data in Re	emarks or	on a separa	ate sheet)	
		= Total Co		Problematic	Hydrophyt	tic Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)		-"		1				
1				¹ Indicators of hyd be present, unles				nust
2				• •				
		= Total Co		Hydrophytic Vegetation				
% Bare Ground in Herb Stratum	er of Biotic C	rust(0	Present?	Yes _	✓ No		
Remarks:								·

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirm	n the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%		ox Feature		Loc ²	Toyturo	Domorko
(inches)			Color (moist)	%	Type ¹		Texture	Remarks
0-12	10 YR 4/3	45	10 YR 2/2	30	<u>d</u>	_ <u>m</u>	clay loam	
			10 YR 3/2	20	<u>d</u>	<u>m</u>	clay loam	cobbles; faint mottles
			10 YR 3/6	_ 5	d	<u>m</u>	clay loam	cobbles
<u> </u>								<u></u>
				_	·			
	-					-		
								
 					·			
	oncentration, D=Dep					ed Sand G		cation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all			ed.)			s for Problematic Hydric Soils ³ :
Histosol	` '		Sandy Red					Muck (A9) (LRR C)
	oipedon (A2)		Stripped M		J /E1)		· 	Muck (A10) (LRR B) ced Vertic (F18)
Black Hi	en Sulfide (A4)		Loamy Mu Loamy Gle	-				Parent Material (TF2)
	d Layers (A5) (LRR (C)	Depleted N	-				(Explain in Remarks)
	ick (A9) (LRR D)	,	✓ Redox Dar				55	
	d Below Dark Surfac	e (A11)	Depleted D		. ,			
Thick Da	ark Surface (A12)		Redox Dep	ressions ((F8)		³ Indicators	s of hydrophytic vegetation and
	lucky Mineral (S1)		Vernal Poo	ols (F9)				hydrology must be present,
	Gleyed Matrix (S4)						unless	disturbed or problematic.
Restrictive I	Layer (if present):							
1								,
Depth (inc	ches):		<u></u>				Hydric Soi	I Present? Yes <u>√</u> No
Remarks:								
HYDROLO	GY							
	drology Indicators:							
Ī	cators (minimum of c		d: check all that ann	dv)			Seco	ndary Indicators (2 or more required)
✓ Surface		nie require	Salt Crus	•				
	` ,		Biotic Cru	` '				Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Figir wa	ater Table (A2)		Aquatic Ir		oc (P13)			Drift Deposits (B3) (Riverine)
	larks (B1) (Nonriver	ino)	Hydroger					Drainage Patterns (B10)
·	nt Deposits (B2) (No	•				Living Por		Ory-Season Water Table (C2)
	posits (B3) (Nonrive		Presence		_	-		Crayfish Burrows (C8)
	Soil Cracks (B6)	iiie)	Recent Ir					Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (R				u 00113 (01		Shallow Aquitard (D3)
	tained Leaves (B9)	imagery (D	Other (Ex					FAC-Neutral Test (D5)
Field Obser			Outer (EX	.piaiii iii ik	omano)			710 Notice (Bo)
Surface Water		'es √	No Depth (ir	nches). 6				
Water Table			No <u>√</u> Depth (ir			_		
							land Hudralas	gy Present? Yes ✓ No
Saturation Pi		es <u>v</u>	No Depth (ir	iches): <u>U</u>		_ well	ianu nyurolog	gy Present? Yes No
Describe Re	corded Data (stream	gauge, m	onitoring well, aerial	photos, p	revious ins	pections),	if available:	
Remarks:								

Project/Site: Anderson 53	(City/County	: Sonoma	County	Sa	mpling Dat	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	:A Sa	mpling Poi	nt:	36
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u></u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	f (concave,	convex, none): mix	ked		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.666	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop	oes			NWI c	lassificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are '	"Normal Circumstar	nces" pres	ent? Yes	✓_ N	ο
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s			g point l	ocations, trans	sects, ir	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	· 🗸	la 4h	a Camania	I Auga				
Hydric Soil Present? Yes No			ne Sampled nin a Wetlan		•	No <u></u>	,	
Wetland Hydrology Present? Yes No		With	iiii a vvetiai	iid: 168	·	140		
Remarks:								
VEGETATION – Use scientific names of plant	s.							
		Dominant	Indicator	Dominance Test	t workshe	et:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Domir	nant Spec			
1				That Are OBL, F	ACW, or F	AC:	1	(A)
2				Total Number of				
3				Species Across A	All Strata:		3	(B)
4		= Total Co		Percent of Domir			22	(A (D)
Herb Stratum (Plot size: 1m^2)		_ 1018100	7701	That Are OBL, F	ACVV, or F	AC:	33	(A/B)
1. <u>Avena barbata</u>		<u> </u>		Prevalence Inde				
2. Hordeum murinum	10		FACU	Total % Cov				
3. <u>Carthamus lanatus</u>				OBL species				
4. Candus pycnocephalus	20			FACW species _ FAC species _				
5. <u>Convolvulus arvensis</u>		N = Total Co		FACU species _		x3 x4=_		_
Herb Stratum (Plot size: 1 m^2)		- Total Co)VCI	UPL species		x 5 = _		_
1. Festuca perennis	20	Y	FAC	Column Totals:			400	
2							4.44	
3				Prevalence				_
4				Hydrophytic Veg Dominance	_			
5				Prevalence I				
6 7				Morphologic			ide suppo	rting
8.				data in Re	emarks or	on a separ	ate sheet)	
		= Total Co	ver	Problematic	Hydrophy	tic Vegetati	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)				1				
1				¹ Indicators of hyd be present, unles				must
2								
		= Total Co	over	Hydrophytic Vegetation				
	of Biotic C	rust()	Present?	Yes _	No		
Remarks:								

(= 000000000000000000000000000000000000	th needed to document the indicator or	,
Depth <u>Matrix</u>	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ I	Loc ² Texture Remarks
<u>0-12</u> <u>10 YR 2/2</u> <u>100</u>		clay loam w/ gravel
		
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated S	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
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 Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		
Depth (inches):	<u></u>	Hydric Soil Present? Yes No✓
Remarks:		
LIVEDOL COV		
HYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:		
	l; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	l; check all that apply) Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required	• • • • • • • • • • • • • • • • • • • •	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv 	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes 1	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes N	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No ✓ Depth (inches): 0	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Note that the present is the present in the present is the present in the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes None Saturation Present?	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Note that the present is the present in the present is the present in the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Noncompared to the present of the p	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes None Saturation Present?	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Noncompared to the present of the p	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Noncompared to the present of the p	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Noncompared to the present of the p	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ✓

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	mpling Dat	e: June	2, 2016
Applicant/Owner: University District, LLC				State: <u>C</u>	A Sa	mpling Poi	nt:	37
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfie	ld	Section, To	wnship, Ra	inge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	æd		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.</u>	342442		Long: <u>-122.666</u>	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slo	pes			NWI cl	assificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for thi			,					
Are Vegetation, Soil, or Hydrologys	significantly	disturbed?	Are	"Normal Circumstar	ices" pres	ent? Yes	N	о
Are Vegetation, Soil, or Hydrology r				eeded, explain any a				
SUMMARY OF FINDINGS – Attach site map			g point l	ocations, trans	ects, ir	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes✓ N	lo							
Hydric Soil Present? Yes <u>✓</u> N	lo		ie Sampled in a Wetla			No		
Wetland Hydrology Present? Yes <u>✓</u> N	lo	With	iii a vvetia	nu: 1es		140		
Remarks:								
VEGETATION – Use scientific names of plan	ıts.							
		Dominant	Indicator	Dominance Test	workshe	et:		
Tree Stratum (Plot size:)	% Cover			Number of Domir				
1				That Are OBL, FA	ACW, or F	AC:	2	(A)
2				Total Number of			2	
3				Species Across A	All Strata:	-	2	(B)
4		= Total Co		Percent of Domin			100	(A /D)
Herb Stratum (Plot size: 1m^2)				That Are OBL, FA	ACVV, OF F	AC	100	(A/b)
1. <u>Festuca perennis</u>				Prevalence Inde				
2. Rumex pulcher			<u>FAC</u>	Total % Cove				
3. <u>Hordeum marinum ssp. gussoneanum</u>				OBL species _				
4. <u>Vicia sativa</u> 5. <u>Lythrum hyssopifolium</u>	_			FACW species _ FAC species _				
5. Lytnrum nyssopijoiium		= Total Co		FACU species _				
Herb Stratum (Plot size: 1 m^2)		10ta100	, vci	UPL species				
1. <u>Rorippa curvisiliqua</u>	5	N	OBL	Column Totals:				
2						D / A	2.00	
3				Prevalence Hydrophytic Veg				_
4				✓ Dominance				
5				✓ Prevalence I				
6				Morphologica			ide suppoi	rting
8.				data in Re	emarks or	on a separ	ate sheet)	
		= Total Co		Problematic	Hydrophy	tic Vegetati	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)				The disease of board		-l 4ll l		
1				¹ Indicators of hyd be present, unles				must
2				Hydrophytic		•		
		_= Total Co		Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0 % Cove	r of Biotic C	rustC)	Present?	Yes _	✓ No	<u> </u>	
Remarks:								

		to the de	pth needed to docu			or confir	m the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	es Type ¹	Loc ²	Texture	Remarks
0-12	10 YR 4/3	45	10 YR 2/2	30	d d	m	clay loam	
0-12	10 11(4/3	43					· -	
			10 YR 3/2	20	<u>_d</u>	_m	· -	cobbles; faint mottles
			10 YR 3/6	5	C	<u>m</u>	<u>clay loam</u>	cobbles
	-			_				
1							- 2	·
			I=Reduced Matrix, C I LRRs, unless other			ed Sand G		cation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
_		cable to al			tea.)			•
Histoso	pipedon (A2)		Sandy Red Stripped M					Muck (A9) (LRR C) Muck (A10) (LRR B)
	listic (A3)		Suipped in		al (F1)		· · · · · · · · · · · · · · · · · · ·	ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-				Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted N	-				(Explain in Remarks)
	uck (A9) (LRR D)	,	✓ Redox Dar					,
Deplete	ed Below Dark Surface	ce (A11)	Depleted D	ark Surfa	ce (F7)			
	ark Surface (A12)		Redox Dep		(F8)			of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ols (F9)				hydrology must be present,
	Gleyed Matrix (S4)						unless	disturbed or problematic.
	Layer (if present):							
• • • • • • • • • • • • • • • • • • • •								,
Depth (in	nches):						Hydric Soi	I Present? Yes <u>√</u> No
Remarks:								
HYDROLO	OGY							
	drology Indicators	:						
_			ed; check all that app	ılv)			Seco	ndary Indicators (2 or more required)
	: Water (A1)	one require	Salt Crus	•				Water Marks (B1) (Riverine)
· 	ater Table (A2)		Biotic Cru	` '				Sediment Deposits (B2) (Riverine)
Nigh W	, ,		Aquatic Ir		e (R13)			Orift Deposits (B3) (Riverine)
	Marks (B1) (Nonrive	rino)	Aquatic II					Orainage Patterns (B10)
	ent Deposits (B2) (No					Livina Ro		Ory-Season Water Table (C2)
	posits (B3) (Nonrive		Presence		_	_		Crayfish Burrows (C8)
	Soil Cracks (B6)	onne)	Recent In		•	*		Saturation Visible on Aerial Imagery (C9)
	ion Visible on Aerial	Imagen/ (F				u 00113 (0	-	Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex					FAC-Neutral Test (D5)
Field Obser			Outer (E)	.piaiii iii ik		1		7.0 (Volume 1001 (20)
Surface Wat		Voc	No <u>✓</u> Depth (ir	achos): O				
			No ✓ Depth (ii			-		
Water Table		· · · · · · · · · · · · · · · · · · ·						D 10 1/2 / 11
Saturation P	'resent'? pillary fringe)	Yes <u></u> ✓	No Depth (in	nches): <u>8</u>		Wet	land Hydrolog	yy Present? Yes No
		n gauge, m	nonitoring well, aerial	photos, p	revious ins	pections)	, if available:	
			-					
Remarks:								

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	ampling Dat	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	Sa Sa	ampling Poi	nt:	38
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u></u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	f (concave,	convex, none): mix	ked		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop	oes			NWI cl	lassificatio	on: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are '	'Normal Circumstar	nces" pres	ent? Yes	✓ N	о
Are Vegetation, Soil, or Hydrology na				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map s			g point l	ocations, trans	sects, ir	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	· 🗸	lo 4k	a Camplas	I Avon				
Hydric Soil Present? Yes No			ne Sampled nin a Wetlan			No_√	,	
Wetland Hydrology Present? Yes No		With	iiii a wetiai	103	·	NO		
Remarks:								
VEGETATION – Use scientific names of plant	s.							
	Absolute	Dominant		Dominance Tes	t workshe	eet:		
,		Species?		Number of Domir			_	
1				That Are OBL, F	ACW, or F	AC:	0	(A)
2				Total Number of			2	(D)
3				Species Across A	Ali Strata:		2	(B)
		= Total Co		Percent of Domir That Are OBL, FA			0.00	(A /D)
Herb Stratum (Plot size: 1m^2)							0.00	(A/D)
1. <u>Avena barbata</u>		<u>Y</u>		Prevalence Inde				
2. Elymus caput-medusae				Total % Cov				
Carthamus lanatus Medicago polymorpha		N		OBL species _ FACW species _				
5. Convolvulus arvensis	2 10			FAC species _				
5. Convolvatas arvensis		= Total Co		FACU species				_
Herb Stratum (Plot size: 1 m^2		10101 00		UPL species				
1. <u>Festuca perennis</u>			FAC	Column Totals:				
2. <u>Erodium cicutarium</u>						D/A	4 47	
3				Prevalence				_
4				Hydrophytic Veg Dominance	_			
5				Prevalence I				
6				Morphologic			ide suppoi	rting
8.				data in Re	emarks or	on a separ	ate sheet)	
		= Total Co		Problematic	Hydrophy	tic Vegetati	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)				1				
1				¹ Indicators of hyd be present, unles				must
2						· ·		
		= Total Co		Hydrophytic Vegetation				
% Bare Ground in Herb Stratum5	of Biotic C	rust ()	Present?	Yes _	No		
Remarks:								

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

Depth	Matrix			K Feature:	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-14	10 YR 2/2	100					loam	w/ gravel
			_					· ·
	-							· ·
	-							
	-							· · <u></u>
								·
¹Type: C=C	oncentration, D=Dep	oletion. RM=F	Reduced Matrix, CS	=Covered	d or Coate	d Sand Gr	rains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic							s for Problematic Hydric Soils ³ :
Histosol			Sandy Redo		,			Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
	istic (A3)		Loamy Muck		I (F1)			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-	. ,			Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		,			(Explain in Remarks)
	uck (A9) (LRR D)	,	Redox Dark		(F6)		· 	,
	d Below Dark Surfac	ce (A11)	Depleted Da	ırk Surfac	e (F7)			
Thick Da	ark Surface (A12)		Redox Depr	essions (I	F8)		³ Indicators	s of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland	hydrology must be present,
-	Gleyed Matrix (S4)						unless	disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	ches):						Hydric Soi	I Present? Yes No✓_
Remarks:	, <u>-</u>							
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
_	cators (minimum of		check all that annly	<i>(</i>)			Seco	endary Indicators (2 or more required)
-		one required,						
	Water (A1)		Salt Crust (. ,				Water Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus		(5.46)			Sediment Deposits (B2) (Riverine)
Saturati			Aquatic Inv					Drift Deposits (B3) (Riverine)
	larks (B1) (Nonrive		Hydrogen S					Orainage Patterns (B10)
	nt Deposits (B2) (No			•	_	•	· · · —	Ory-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence of					Crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iron			d Soils (C6	5) 5	Saturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)		\$	Shallow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in Re	marks)		F	FAC-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	res N	o <u>√</u> Depth (inc	hes): <u>0</u>				
Water Table	Present?	res N	o <u>√</u> Depth (inc	thes): 0				
Saturation P			o ✓ Depth (inc			Wetl	and Hydrolog	gy Present? Yes No✓_
(includes cap			o Bopui (iiic	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_		
	corded Data (strean	n gauge, mor	itoring well, aerial p	hotos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampling Date: June 2, 2016
Applicant/Owner: <u>University District, LLC</u>				State: CA	Sampling Point: 39
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Rar	nge:	
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, o	convex, none): mixed	Slope (%): <5%
Subregion (LRR): Mediterranean California (LRR C)					
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slope				-	
Are climatic / hydrologic conditions on the site typical for this ti			,		
Are Vegetation, Soil, or Hydrology sign	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology nati				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map sh					
Hydrophytic Vegetation Present? Yes ✓ No _					
Hydric Soil Present? Yes ✓ No			e Sampled		<i>(</i>
Wetland Hydrology Present? Yes No _		with	in a Wetlan	id? Yes <u>√</u>	No
Remarks:					
VEGETATION – Use scientific names of plants					
		Dominant	Indicator	Dominance Test work	rsheet:
		Species?		Number of Dominant S	
1				That Are OBL, FACW,	
2				Total Number of Domin	
3				Species Across All Stra	ata: <u>2</u> (B)
4				Percent of Dominant S	
Herb Stratum (Plot size:1m^2)		= Total Co	ver	That Are OBL, FACW,	or FAC: 100 (A/B)
1. <u>Festuca perennis</u>	75	Υ	FAC	Prevalence Index wor	rksheet:
2. Rumex pulcher		N	FAC	Total % Cover of:	Multiply by:
3. Rumex crispus			FAC		0 x 1 =20
4. Briza minor			FAC	· ·	1 x 2 = 2
5. <u>Polypogon monspeliensis</u>			FACW		9 x 3 = <u>267</u>
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU speciesC	
1. Parentucellia viscosa	1	N	FAC	Column Totals: 11	
2. Rorippa curvisiliqua		Υ	OBL	Column Totals	<u>10</u> (A) <u>203</u> (B)
3				Prevalence Index	c = B/A = 2.63
4				Hydrophytic Vegetation	
5				✓ Dominance Test is	
6				✓ Prevalence Index i	
7					aptations ¹ (Provide supporting as or on a separate sheet)
8		= Total Cov		Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		= Total Co	vei		
1					il and wetland hydrology must
2				be present, unless distr	urbed or problematic.
-		= Total Co	ver	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 0	f Biotic Cr	rust0			es No
Remarks:				L	

Depth	Matrix			x Feature	es		ii die abseilce	or maleators.
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	10 YR 2/2	85	10 YR 4/6	>5	d	m	clay loam	cobbles
			10 YR 3/3	10	d	m	clay loam	cobbles; faint mottles
					-			
	_				-	-		
	_							
	-	_			-			
					_			
			=Reduced Matrix, C			ed Sand G		cation: PL=Pore Lining, M=Matrix.
•		able to all	LRRs, unless othe		ted.)			for Problematic Hydric Soils ³ :
Histosol	` '		Sandy Red					Muck (A9) (LRR C)
	pipedon (A2)		Stripped M		-1 (54)			Muck (A10) (LRR B)
	istic (A3)		Loamy Muc	-				ced Vertic (F18)
	en Sulfide (A4) d Layers (A5) (LRR	C)	Loamy Gle Depleted M					arent Material (TF2) (Explain in Remarks)
·	uck (A9) (LRR D)	C)	Depleted iv	` ,			Other	(Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted D		. ,			
	ark Surface (A12)	(* * * * *)	Redox Dep		. ,		3Indicators	of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Poo		,			hydrology must be present,
	Gleyed Matrix (S4)						unless d	listurbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes <u>√</u> No
Remarks:								
HYDROLO								
_	drology Indicators							
Primary Indi	cators (minimum of o	one require	d; check all that app	•				ndary Indicators (2 or more required)
	Water (A1)		Salt Crust	` ,				Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru					Sediment Deposits (B2) (Riverine)
✓ Saturati	` ,		Aquatic In		` '		· · · · · · · · · · · · · · · · · · ·	Orift Deposits (B3) (Riverine)
	larks (B1) (Nonrive i		Hydrogen					Prainage Patterns (B10)
	nt Deposits (B2) (No				_	-		Ory-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence				· · · · · · · · · · · · · · · · · · ·	Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro			d Soils (C		Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (B	· —		. ,			Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)			AC-Neutral Test (D5)
Field Obser		,	N					
Surface Wat			No <u>√</u> Depth (in					
Water Table			No Depth (in			-		
Saturation P (includes cap		res <u>√</u>	No Depth (in	iches): 0		Wet	land Hydrolog	y Present? Yes No
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, pi	revious ins	spections),	if available:	
Remarks:								

Project/Site: Anderson 53		City/County	r: <u>Sonoma</u>	County	Sa	mpling Date	e: June	2, 2016
Applicant/Owner: University District, LLC				State:	CA Sa	mpling Poir	nt:	40
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u> </u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	xed		Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop				NWI c				
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology signature.	-			Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology na				eded, explain any				
SUMMARY OF FINDINGS – Attach site map s			•			,		s, etc.
Hydrophytic Vegetation Present? Yes No	√	1- 41	0 1 1					
Hydric Soil Present? Yes No			ne Sampled nin a Wetlar			No <u>√</u>		
Wetland Hydrology Present? Yes No		Witi	iiii a vvetiai	id: Tes	·——	NO <u>v</u>		
Remarks:								
VEGETATION – Use scientific names of plant	s.							
		Dominant		Dominance Tes	t workshe	et:		
		Species?	-	Number of Domi				
1				That Are OBL, F	ACW, or F	AC:	0	(A)
2				Total Number of			2	(5)
3				Species Across A	All Strata:		2	(B)
4		= Total Co		Percent of Domir			0.00	(A /D)
Herb Stratum (Plot size:1m^2)			7401	That Are OBL, F	ACW, or F	AC:	0.00	(A/B)
1. <u>Avena barbata</u>		Y		Prevalence Inde				
2. <u>Hordeum murinum</u>	20		FACU	Total % Cov				
3. Elymus caput-medusae				OBL species				
4. Vicia sativa				FACW species				
5. <u>Convolvulus arvensis</u>	5			FAC species _ FACU species _		x		_
Herb Stratum (Plot size: 1 m^2)		_ = Total Co	over	UPL species				_
1. Bromus hordeaceaus	5	N	FACU	Column Totals:				
2. <u>Carduus pycnocephalus</u>	5	N	UPL	ooidiiii rotalo.		_ ('') _		_ (5)
3. <u>Medicago polymorpha</u>	5	N	UPL	Prevalence			4.75	_
4				Hydrophytic Ve	_			
5				Dominance				
6				Prevalence I			do ouppo	rtina
7						on a separa		
8				Problematic	Hydrophyt	tic Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)	100	= Total Co	over					
1				¹ Indicators of hyd				must
2				be present, unles	ss disturbe	a or proble	matic.	
		= Total Co		Hydrophytic Vegetation				
% Bare Ground in Herb Stratum	of Biotic C	rust(0	Present?	Yes	No	✓	
Remarks:				1				

	th needed to document the indicator or o	,
Depth <u>Matrix</u>	Redox Features	1
(inches) Color (moist) %	Color (moist) % Type ¹ I	Loc ² Texture Remarks
<u>0-16</u> <u>10 YR 2/2</u> <u>100</u>		clay loam w/ gravel
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated S	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
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 Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		
Depth (inches):	<u></u>	Hydric Soil Present? Yes No✓
Remarks:		·
LIVERGLEGAY		
HYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:		
	l; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	i; check all that apply) Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required	• • • • • • • • • • • • • • • • • • • •	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living 	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Note that the present is the present in the present is the present in the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Note that the present is the present in the present is the present in the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No _✓
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Noncompared to the present of the p	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S 7) Thin Muck Surface (C7) Other (Explain in Remarks) No	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No _✓
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Project/Site: Anderson 53		City/Coun	ty: <u>Sonoma</u>	County	San	npling Date	e: <u>June 2</u>	23, 2016
Applicant/Owner: University District, LLC				State:	CA San	npling Poir	nt:	43
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfie								
Landform (hillslope, terrace, etc.): Floodplain terrace				_				<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratu								
•			,				<u>Jeasoriai</u>	
Are climatic / hydrologic conditions on the site typical for th	•					,	/	
Are Vegetation, Soil, or Hydrology				'Normal Circumsta				0
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any	answers in	Remarks.))	
SUMMARY OF FINDINGS - Attach site map	showing	sampli	ng point l	ocations, trans	sects, im	portant	feature	s, etc.
Hydrophytic Vegetation Present? Yes N	ylo ✓							
Hydric Soil Present? Yes N			the Sampled				,	
Wetland Hydrology Present? Yes N	No ✓	wit	thin a Wetlar	nd? Yes	s	No <u>√</u>	_	
Remarks:	<u> </u>							
VEGETATION – Use scientific names of plan	nts.							
Tree Stratum (Diet eize)			nt Indicator	Dominance Tes	t workshee	et:		
Tree Stratum (Plot size:)			? Status	Number of Domi			1	(4)
1				That Are OBL, F.	ACVV, or FA		1	(A)
2.				Total Number of			2	(D)
3				Species Across A	All Strata:		3	(B)
4				Percent of Domin			22	(A (D)
Herb Stratum (Plot size: 1m^2)		_ Total C	,0vC1	That Are OBL, F.	ACVV, or FA	·C:	_ 33	(A/B)
1. <u>Avena barbata</u>	30	Y	UPL	Prevalence Inde	ex workshe	et:		
2. <u>Vicia sativa</u>	10	N	<u>UPL</u>	Total % Cov	er of:	Mul	tiply by:	_
3. Elymus caput-medusae	20		UPL	OBL species				
4. Lathyrus latifolius	4			FACW species				
5. <u>Festuca perennis</u>	30	Y	FAC	FAC species				
Hart Otratura (Districts 1 mA2		= Total C	Cover	FACU species				_
Herb Stratum (Plot size: 1 m^2) 1. Lactuca serriola	1	N	FACU	UPL species				_
			UPL	Column Totals:	102	(A) _	446	(B)
Bromus diandrus Helminthotheca echioides			FACU	Prevalence	Index = B	/A =	4.37	
4. Elymus triticoides				Hydrophytic Ve				
5				Dominance	_			
6.				Prevalence				
7.				Morphologic			ide suppor	rting
8.					emarks or c	•	,	
		= Total C	Cover	Problematic	Hydrophytic	c Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)								
1				¹ Indicators of hyd				must
2				be present, unles	ss distuibed	i di pidble	nauc.	
		= Total C	Cover	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0	er of Biotic C	rust	0	Present?	Yes	No	✓	
Remarks:								

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

Depth	Matrix		Redox	K Features	3			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 3/2	100					loam	
	-							
	oncentration, D=Dep					d Sand Gr		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless other	wise note	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redo	x (S5)			1 cm Mucl	k (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma	trix (S6)			2 cm Mucl	k (A10) (LRR B)
Black H	istic (A3)		Loamy Mucl	ky Mineral	l (F1)		Reduced \	Vertic (F18)
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parer	nt Material (TF2)
Stratifie	d Layers (A5) (LRR	C)	Depleted Ma	atrix (F3)			Other (Exp	olain in Remarks)
1 cm Mu	uck (A9) (LRR D)		Redox Dark	Surface (F6)			
Deplete	d Below Dark Surfac	e (A11)	Depleted Da	ırk Surfac	e (F7)			
Thick Da	ark Surface (A12)		Redox Depr	essions (F	- 8)		³ Indicators of h	nydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland hyd	rology must be present,
Sandy C	Gleyed Matrix (S4)						unless distu	rbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes No ✓
Remarks:	onoo).						,	
Nemains.								
	·OV							
HYDROLO								
Wetland Hy	drology Indicators							
Primary Indi	cators (minimum of	one required;	check all that apply	/)			Secondar	y Indicators (2 or more required)
Surface	Water (A1)		Salt Crust ((B11)			Wate	er Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crus	t (B12)			Sedir	ment Deposits (B2) (Riverine)
Saturati	` '		Aquatic Inv		s (B13)			Deposits (B3) (Riverine)
	farks (B1) (Nonrive	rine)	Hydrogen \$					nage Patterns (B10)
	nt Deposits (B2) (No					Livina Boo		Season Water Table (C2)
					_	_		
	posits (B3) (Nonrive	erine)	Presence of				_ ,	fish Burrows (C8)
	Soil Cracks (B6)		Recent Iron			d Soils (Co	· —	ration Visible on Aerial Imagery (C9)
	ion Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)			ow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in Re	marks)		FAC-	Neutral Test (D5)
Field Obser	vations:							
Surface Wat	ter Present?	/es N	o <u>√</u> Depth (inc	:hes):		_		
Water Table	Present?	res N	o <u>√</u> Depth (inc	ches):				
Saturation P			o ✓ Depth (inc				and Hydrology Pi	resent? Yes No ✓
	pillary fringe)		o <u> </u>	, i i c s)		_ *****	ana myarology i i	163 NO
	corded Data (strean	n gauge, mon	itoring well, aerial p	hotos, pre	evious ins	pections),	if available:	
Remarks:								
. to.manto.								

Project/Site: Anderson 53	(City/County:	Sonoma	County	Sampli	ing Date: <u>Jur</u>	ne 23, 2016
Applicant/Owner: University District, LLC				State: <u>CA</u>	Sampli	ng Point:	44
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, Tov	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mixe	d	Slope	(%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.66673	35	Datum:	WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,	drained	, 0 to 2% s	lopes	NWI clas	ssification: F	PEM2/Seaso	nal
Are climatic / hydrologic conditions on the site typical for this ti			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstanc			No
Are Vegetation, Soil, or Hydrology nat				eded, explain any ar			
SUMMARY OF FINDINGS – Attach site map sh							ures, etc.
Lludrophytic Vegetation Present? Veg No.							
Hydrophytic Vegetation Present? Yes No _ Hydric Soil Present? Yes No _			e Sampled			,	
Wetland Hydrology Present? Yes No	_	withi	in a Wetlan	d? Yes_	N	0 _ ✓	
Remarks:		I					
VECETATION Lies ecientific names of plants							
VEGETATION – Use scientific names of plants		Dominant	Indicator	Dominanaa Taat	voulcoboot.		
		Dominant Species?		Number of Domina			
1				That Are OBL, FAC		1	(A)
2				Total Number of D	ominant		
3				Species Across All		3	(B)
4				Percent of Domina			
Herb Stratum (Plot size: 1m^2)		= Total Cov	/er	That Are OBL, FAC	CW, or FAC:	33	(A/B)
1. Avena barbata	30	ΥΥ	UPL	Prevalence Index	worksheet:		
2. Helminthotheca echioides	1	N	FACU	Total % Cover	of:	Multiply b	<u>y:</u>
3. Elymus caput-medusae			UPL	OBL species	0 :	x 1 =0	
4. Elymus triticoides			<u>FAC</u>	FACW species			
5. <u>Festuca perennis</u>	30		<u>FAC</u>	FAC species			
Herb Stratum (Plot size: 1 m^2)		= Total Cov	/er	FACU species			
1. Bromus hordeaceaus	5	N	FACU	UPL species Column Totals:		·	<u>0 </u>
2.				Column Totals	(A)	<u>4</u> (D)
3				Prevalence Ir	ndex = B/A :	= 4.10	
4				Hydrophytic Vege		ators:	
5				Dominance Te			
6				Prevalence Inc		1 (Descride e	
7				Morphological data in Ren	Adaptations	a separate sh	pporting eet)
8				Problematic H	ydrophytic V	egetation ¹ (E	xplain)
Woody Vine Stratum (Plot size:)	90	= Total Cov	/er				
1				¹ Indicators of hydri			
2				be present, unless	disturbed or	problematic.	
_		= Total Cov	/er	Hydrophytic			
% Bare Ground in Herb Stratum 4	f Biotic Cr	rust0		Vegetation Present?	Yes	No <u></u> ✓	_
Remarks:							

Profile Desc	cription: (Describe	to the depth ne	eeded to docu	ment the i	ndicator o	or confirm	n the absenc	e of indicators.)
Depth	Matrix			x Features	3			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10 YR 3/2	100					clay loam	w/ gravel
								·
	-							·
								·
	•							
								·
		<u> </u>					-	
¹Type: C=Co	oncentration, D=Dep	letion, RM=Red	uced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (Applic	able to all LRR	s, unless othe	rwise note	ed.)			s for Problematic Hydric Soils ³ :
Histosol	(A1)	_	Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)
Histic Ep	pipedon (A2)	_	Stripped M	atrix (S6)			2 cm	Muck (A10) (LRR B)
Black Hi	stic (A3)	<u>-</u>	Loamy Mud	cky Minera	l (F1)		Redu	ced Vertic (F18)
Hydroge	en Sulfide (A4)	<u>-</u>	Loamy Gle	yed Matrix	(F2)		Red I	Parent Material (TF2)
Stratified	d Layers (A5) (LRR (C) _	Depleted M	latrix (F3)			Other	(Explain in Remarks)
	ıck (A9) (LRR D)	-	Redox Dar	,	,			
-	d Below Dark Surfac	e (A11)	Depleted D				•	
	ark Surface (A12)	-	Redox Dep	•	=8)			s of hydrophytic vegetation and
	Mucky Mineral (S1)	-	Vernal Poo	ls (F9)				hydrology must be present,
-	Bleyed Matrix (S4)						unless	disturbed or problematic.
	Layer (if present):							
		_						,
Depth (inc	ches):						Hydric So	il Present? Yes No _✓
Remarks:								
	O.V.							
HYDROLO								
Wetland Hyd	drology Indicators:							
Primary Indic	cators (minimum of c	ne required; che	eck all that app	ly)			Seco	ondary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)				Water Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Cru	st (B12)			:	Sediment Deposits (B2) (Riverine)
Saturation	on (A3)		Aquatic In	vertebrate	s (B13)			Drift Deposits (B3) (Riverine)
Water M	larks (B1) (Nonriver	ine)	Hydrogen	Sulfide Od	dor (C1)			Drainage Patterns (B10)
	nt Deposits (B2) (No					Living Roc		Dry-Season Water Table (C2)
	oosits (B3) (Nonrive		Presence		_	-		Crayfish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro					Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial I	magery (B7)	Thin Mucl			`		Shallow Aquitard (D3)
	tained Leaves (B9)		Other (Ex					FAC-Neutral Test (D5)
Field Observ				p.a				7.10 1.104444. 1.001 (2.0)
Surface Water		es No _	✓ Donth (in	choe):				
						l l		
Water Table		es No _				l l		
Saturation Pr	resent? Y	es No _	_✓ Depth (in	iches):		_ Wetla	and Hydrolo	gy Present? Yes No✓
(includes cap	corded Data (stream	gauge monitor	ing well aerial	nhotos pro	evious ins	nections)	if available:	
Booding ite	oordod Bata (otroam	gaago, monto	ing won, donar	priotoo, pri	011000 1110	pootiono),	n avanabio.	
Damada								
Remarks:								

Project/Site: Anderson 53	(City/County:	Sonoma	County	Samp	oling Date:	June 23, 2016
Applicant/Owner: University District, LLC				State: <u>C</u>	A Samp	oling Point: _	45
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	;	Section, To	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): mix	æd	Slor	oe (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.6667	735	Datur	m: WSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,	drained	, 0 to 2% s	lopes	NWI cl	assification:	PEM2/Sea	isonal
Are climatic / hydrologic conditions on the site typical for this ti			,				
Are Vegetation, Soil, or Hydrology sign	-			Normal Circumstan			/ No
Are Vegetation, Soil, or Hydrology nati				eded, explain any a			
SUMMARY OF FINDINGS – Attach site map sh							atures, etc.
Hydrophytic Vegetation Present? Yes No _	1						
Hydric Soil Present? Yes No _			e Sampled			/	
Wetland Hydrology Present? Yes No	_	with	in a Wetlan	id? Yes	· '	No <u> </u>	
Remarks:							
VEGETATION – Use scientific names of plants							
<u> </u>		Dominant	Indicator	Dominance Test	workshoot		
		Species?		Number of Domir			
1				That Are OBL, FA			(A)
2				Total Number of I	Dominant		
3				Species Across A	All Strata:	1	(B)
4				Percent of Domin			
Herb Stratum (Plot size: 1m^2)		= Total Co	ver	That Are OBL, FA	ACW, or FAC): <u>50</u>) (A/B)
1. <u>Avena barbata</u>	3	N	UPL	Prevalence Inde	x workshee	t:	
2. Epilobium brachycarpum	2		UPL	Total % Cove			-
3. <u>Phalaris aquatica</u>			FACU	OBL species _			
4. Elymus triticoides		<u>Y</u>		FACW species _			
5. <u>Festuca perennis</u>	15		<u>FAC</u>	FAC species _			
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	FACU species _ UPL species _		x 4 =	
1		-		Column Totals:		· ·	350 (B)
2				_		. ,	
3					Index = B/A		<u>50 </u>
4				Hydrophytic Vec			
5				Dominance 1			
6				Prevalence li			supporting
7					emarks or on		
8		= Total Cov		Problematic	Hydrophytic	Vegetation ¹	(Explain)
Woody Vine Stratum (Plot size:)	100	- 10tal C0	VEI				
1				¹ Indicators of hyd be present, unles			
2					s disturbed t	л рговієптат	.IC.
-		= Total Co	ver	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum	f Biotic Cr	rust0		Present?	Yes	No	✓
Remarks:				<u> </u>			

Depth	cription: (Describe Matrix	to the dep		ox Feature		or commi	ii tiie abselice (or maioators.)
(inches)	Color (moist)	%	Color (moist)	<u> %</u>	Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 3/2	99	10 YR 4/6	1	С	m	loam	
					-	-		
	·				-	-		
	-							
	- · ·							
					-			
	-							
1								
	Concentration, D=Dep					ed Sand G		ation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	cable to all			ted.)			for Problematic Hydric Soils ³ :
Histoso	` '		Sandy Red					luck (A9) (LRR C)
	Epipedon (A2)		Stripped M		SL (E4)			luck (A10) (LRR B)
	listic (A3) en Sulfide (A4)		Loamy Mu Loamy Gle	-	. ,			ed Vertic (F18) rent Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted N	•	. ,			Explain in Remarks)
	luck (A9) (LRR D)	-,	Redox Dar					
	ed Below Dark Surfac	ce (A11)	Depleted [. ,			
Thick D	ark Surface (A12)		Redox De	pressions ((F8)		³ Indicators of	of hydrophytic vegetation and
-	Mucky Mineral (S1)		Vernal Poo	ols (F9)			wetland h	nydrology must be present,
-	Gleyed Matrix (S4)						unless di	sturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil I	Present? Yes No
Remarks:								
HYDROLO	OGY							
	drology Indicators	:						
-	icators (minimum of		d check all that and	olv)			Secon	dary Indicators (2 or more required)
	Water (A1)	one require	Salt Crus	•				ater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru	` '				ediment Deposits (B2) (Riverine)
Saturat	` '		Aquatic II		e (R13)			rift Deposits (B3) (Riverine)
	Marks (B1) (Nonrive i	rino)	Hydroger					rainage Patterns (B10)
	ent Deposits (B2) (No		-			Living Po		ry-Season Water Table (C2)
	eposits (B3) (Nonrive		Presence		_	-		rayfish Burrows (C8)
	e Soil Cracks (B6)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Recent Ir					aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial	Imageny (B	· · · · · · · · · · · · · · · · · · ·			u 00113 (0	· —	nallow Aquitard (D3)
	Stained Leaves (B9)	iiiageiy (L	Other (E)					AC-Neutral Test (D5)
Field Obse	, ,		Outer (E)	CPICIII III IX	omanto)			NO-Neutral Test (DS)
		/os	No 🗸 Donth (ii	nchos):				
			No ✓ Depth (ii					
Water Table			No <u>✓</u> Depth (ii					
Saturation F	Present? apillary fringe)	res	No <u>✓</u> Depth (ii	nches):		_ wet	land Hydrology	Present? Yes No✓
	ecorded Data (strean	n gauge, m	onitoring well, aerial	photos, p	revious ins	spections)	if available:	
	•							
Remarks:								

Project/Site: Anderson 53	C	City/County:	Sonoma	County	Sar	mpling Date: June	e 23, 2016
Applicant/Owner: <u>University District, LLC</u>				State:	CA Sar	mpling Point:	46
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield		Section, To	wnship, Rar	nge:			
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave, c	convex, none): <u>m</u>	nixed	Slope (%): <u><5%</u>
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.3	342442		Long: -122.66	6735	Datum: V	VSG84
Soil Map Unit Name: Clear Lake Clay, sandy substratum,				-			
Are climatic / hydrologic conditions on the site typical for this ti			,				
Are Vegetation, Soil, or Hydrology sign	-					ent? Yes <u>√</u>	No
Are Vegetation, Soil, or Hydrology nati				eded, explain an			
SUMMARY OF FINDINGS – Attach site map sh							res, etc.
Lludranhutia Vagatatian Dragant?							
Hydrophytic Vegetation Present? Yes No _ Hydric Soil Present? Yes No _			e Sampled			,	
Wetland Hydrology Present? Yes No		with	in a Wetlan	id? Yo	es	No <u>√</u>	
Remarks:							
NECETATION II : (III)							
VEGETATION – Use scientific names of plants							
		Dominant Species?		Dominance Te			
1				Number of Don That Are OBL,		es AC: <u> </u>	(A)
2				Total Number o			
3				Species Across		3	(B)
4				Percent of Dom	ninant Snecie	26	
Hart Otation (District 1mA2)		= Total Co	ver			AC: <u>33</u>	(A/B)
Herb Stratum (Plot size: 1m^2) 1. Avena barbata	2	<u>Y</u>	LIDI	Prevalence Inc	lex workshe	eet:	
Hordeum marinum ssp. gussoneanum		Y			over of:		
3. Elymus caput-medusae	20	Y	UPL			x 1 =0	
4. Epilobium brachycarpum	1	N	UPL	-		x 2 = 0	
5. Festuca perennis	30	Υ	FAC	FAC species	70	_ x 3 = <u>210</u>	
		= Total Co	ver	FACU species	0	_ x 4 =0	
Herb Stratum (Plot size: 1 m^2				UPL species		_ x 5 = <u>115</u>	
1				Column Totals:	93	_ (A) <u>325</u>	(B)
2				Prevalend	ce Index = B	A/A = 3.49	
3				Hydrophytic V			
5.				Dominance	_		
6				Prevalence	e Index is ≤3.	.0 ¹	
7				Morpholog	ical Adaptation	ons ¹ (Provide sup	porting
8						on a separate she	•
-	93	= Total Co	ver	Problemati	с нуагорпуц	c Vegetation ¹ (Ex	piain)
Woody Vine Stratum (Plot size:)				¹ Indicators of h	vdric soil and	d wetland hydrolog	ıv muet
1						d or problematic.	y mast
2		= Total Co		Hydrophytic			
				Vegetation			
% Bare Ground in Herb Stratum 7	Biotic Cr	ust <u> </u>		Present?	Yes	No <u>√</u>	-
Remarks:							

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

Depth	Matrix		Redox	K Feature:	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-6	10 YR 3/2	100					clay loam	w/ gravel
	-							·
	-							· · <u></u>
	-							
1							. 2.	·
	oncentration, D=Dep					d Sand Gr		ocation: PL=Pore Lining, M=Matrix.
-	Indicators: (Applic	able to all L			ea.)			s for Problematic Hydric Soils ³ :
Histosol			Sandy Redo					Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
	istic (A3)		Loamy Mucl	-				ced Vertic (F18)
	en Sulfide (A4)		Loamy Gley		(F2)			Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma				Other	(Explain in Remarks)
	uck (A9) (LRR D)		Redox Dark		. ,			
	d Below Dark Surfac	e (A11)	Depleted Da				2	
	ark Surface (A12)		Redox Depr	•	F8)			s of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Pools	s (F9)				hydrology must be present,
	Gleyed Matrix (S4)						unless	disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soi	I Present? Yes No✓
Remarks:							1	
HYDROLO	GY							
Wetland Hy	drology Indicators	<u> </u>						
_	cators (minimum of		check all that apply	()			Soco	endary Indicators (2 or more required)
-	•	<u>Jile required,</u>						
	Water (A1)		Salt Crust (. ,				Water Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crus				_ 8	Sediment Deposits (B2) (Riverine)
Saturati			Aquatic Inv	ertebrate	s (B13)		[Orift Deposits (B3) (Riverine)
Water M	farks (B1) (Nonrive i	rine)	Hydrogen S	Sulfide O	dor (C1)		[Orainage Patterns (B10)
Sedime	nt Deposits (B2) (No	nriverine)	Oxidized R	hizosphe	res along	Living Roc	ots (C3) [Ory-Season Water Table (C2)
Drift De	posits (B3) (Nonrive	rine)	Presence of	of Reduce	d Iron (C4	1)	(Crayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iron				3)	Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (B7)				,		Shallow Aquitard (D3)
	Stained Leaves (B9)	0 , (,	Other (Exp	lain in Re	marks)			FAC-Neutral Test (D5)
Field Obser					,			
Surface Wat		/es N	o <u>✓</u> Depth (inc	hes).				
		<u></u>						
Water Table			o ✓ Depth (inc					
Saturation P	resent?	/es N	o <u>√</u> Depth (inc	:hes):		_ Wetla	and Hydrolog	gy Present? Yes No _✓
(includes cap Describe Re	piliary fringe) corded Data (strean	n daude mon	itoring well aerial n	hotos pr	evious ins	nections)	if available.	
20001100110	Juliana Data (Stream	. gaage, mon		, pi	- 1.000 IIIS	,	available.	
D								
Remarks:								

Project/Site: Anderson 53	(City/Count	y: <u>Sonoma</u>	County	Sam	pling Dat	e: June 2	23, 2016
Applicant/Owner: University District, LLC				State:(CA Sam	pling Poir	nt:	47
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	:	Section, T	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	ef (concave,	convex, none): <u>mi</u>	xed	;	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.3</u>	342442		Long: <u>-122.666</u>	735	D	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop	oes			NWI c	lassification:	PEM2/	Seasonal	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes_	✓ No_	(If no, expla	ain in Remarl	ks.)		
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are "	Normal Circumsta	nces" preser	nt? Yes	✓_ N	о
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(If ne	eded, explain any	answers in F	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	showing	samplii	ng point l	ocations, tran	sects, im _l	oortant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No	· 🗸	lo 4	he Sampled	Avoc				
Hydric Soil Present? Yes <u>✓</u> No			hin a Wetlar		s	No ✓	,	
Wetland Hydrology Present? Yes No		Wit	iiii a weda	10:				
Remarks:								
VEGETATION – Use scientific names of plant								
VEGETATION - Ose scientific flames of plant	Absolute	Dominon	nt Indicator	Dominance Tes	t workshoo			
Tree Stratum (Plot size:)			Status	Number of Domi				
1				That Are OBL, F			0	(A)
2				Total Number of	Dominant			
3				Species Across			1	(B)
4				Percent of Domi	nant Species	:		
Herb Stratum (Plot size: 1m^2)		= Total C	over	That Are OBL, F			0.00	(A/B)
Herb Stratum (Plot size: 1m^2) 1. Phalaris aquatica	70	٧	FACU	Prevalence Inde	ex workshee	et:		
2. Briza minor	_		FAC	Total % Cov			tiply by:	
3. Bromus hordeaceaus			FACU	OBL species				
4. Festuca perennis	_		FAC	FACW species				
5. Polypogon monspeliensis	1			FAC species				
		= Total C	over	FACU species	71	x 4 = _	284	_
Herb Stratum (Plot size: 1 m^2				UPL species		x 5 = _		_
1				Column Totals:	78	(A) _	304	(B)
2				Prevalence	e Index = B/	Δ =	3.90	
3				Hydrophytic Ve				
4. 5.				Dominance	_			
6				Prevalence				
7.				Morphologic	al Adaptatio	ns¹ (Provi	ide suppo	rting
8.					emarks or o			
		= Total C		Problematic	Hydrophytic	Vegetati	on' (Expla	in)
Woody Vine Stratum (Plot size:)				1 mail a stand of book	المصالم مما	ما اممادات		
1				¹ Indicators of hydbe present, unlea				nust
2				Hydrophytic		<u> </u>		
				Vegetation				
% Bare Ground in Herb Stratum 22	of Biotic Cı	rust	U	Present?	Yes	No		
Remarks:								

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicat Histosol (A1) Sandy Redox (S5) 1 Histic Epipedon (A2) Stripped Matrix (S6) 2 Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Re Stratified Layers (A5) (LRR D) Yeedox Dark Surface (F6) Other Thick Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) 3Indicators: Redox Dark Surface (F7) Redox Depressions (F8) 3Indicators (A11) Restrictive Layer (If present): Type: Depth (inches): Hydric: Remarks: Depleted Water (A1) Salt Crust (B11) Hydrogen Sulfide Odor (C1) High Water Table (A2) Biotic Crust (B12) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dirit Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Titled Soils (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Wetland Hydrogen Sulfide Remarks) Period Present? Yes No Y Depth (inches): Wetland Hydrogen Sulface Specifications), if available Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available	<u>m</u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Re Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (minimum of one required; check all that apply) Semarks: Wettand Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Semarks: Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Field Observations: Surface Nater Present? Yes No V Depth (inches): Wettand Hydrolos, if available (Inches): Wettand Hydrolos: Wettand Hydrolosy Indicators (C7) Wettand Rydrace (A1) Semarks: Wettand Hydrolosy Indicators: Wettand Hydrolosy Indicators:	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 10 Histosol (A2) Stripped Matrix (S6) 20 Black Histic (A3) Loamy Mucky Mineral (F1) Re Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Re Stratified Layers (A5) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Wernal Pools (F9) Wetland Hydrology Indicators: Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Sirver (F7) Surface Water (A12) Salt Crust (B11) Hydrocate (F7) Hydric : Sardy Gleyed Matrix (S4) Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Sirver (F7) Surface Water (A12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Hydrocate (F7) Surface Water (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Pydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Salt (F7) Surface Salt (F7) Salt (F7) Surface Salt (F7) Salt (F7) Surface (F7) Surface Salt (F7) Surfac	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 10 Histosol (A2) Stripped Matrix (S6) 20 Black Histic (A3) Loamy Mucky Mineral (F1) Re Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Re Stratified Layers (A5) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Wernal Pools (F9) Wetland Hydrology Indicators: Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Sirver (F7) Surface Water (A12) Salt Crust (B11) Hydrocate (F7) Hydric : Sardy Gleyed Matrix (S4) Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Sirver (F7) Surface Water (A12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Hydrocate (F7) Surface Water (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Pydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Salt (F7) Surface Salt (F7) Salt (F7) Surface Salt (F7) Salt (F7) Surface (F7) Surface Salt (F7) Surfac	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F3) Depleted Matrix (F3) Depleted Balox Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Perpleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Monriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Crack (B6) Recent Iron Reduction in Tilled Soils (C6) Innuation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) Wetland Hydrolications: Surface Water Present? Yes No Depth (inches): Wetland Hydrolication in Survival Balox (S1) Wetland Hydrolication in Survival Balox (S2) Wetland Hydrolication in Remarks) Wetland Hydrolication in Survival Balox (S3) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	
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Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Water (C4) Sediment Deposits (B6) Drift Deposits (B6) Water Stained Leaves (B9) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Surface Preservious Invaled Notes (B1) Wetland Hydrology Indicators (C5) Primary Indicators (minimum of one required; check all that apply) Signaturation (A3) Surface Water (A1) Salt Crust (B11) Hydrogen Surfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits	cm Muck (A9) (LRR C)
Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Ot 1 cm Muck (A9) (LRR D) Zedox 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) wett Sandy Gleyed Matrix (S4) unle Restrictive Layer (if present): Type: Depth (inches): Hydric: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Innudation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Saturation Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Saturation Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Saturation Present? Yes No / Depth (inches): Water Table Present? Yes No / Depth (inches): Saturation Present? Yes No / Depth (inche	cm Muck (A10) (LRR B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Ot 1 cm Muck (A9) (LRR D)	educed Vertic (F18)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Ot 1 cm Muck (A9) (LRR D) ✓ Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) wetl: Sandy Gleyed Matrix (S4) Unle Restrictive Layer (if present): Type:	ed Parent Material (TF2)
1 cm Muck (A9) (LRR D)	her (Explain in Remarks)
Thick Dark Surface (A12)	,
Sandy Mucky Mineral (S1) Vernal Pools (F9) wetls Sandy Gleyed Matrix (S4) unle Restrictive Layer (if present): Type: Depth (inches): Hydric : Remarks: VPDROLOGY Hydric :	
Sandy Gleyed Matrix (S4) unle Restrictive Layer (if present): Type: Depth (inches):	tors of hydrophytic vegetation and
Restrictive Layer (if present): Type:	and hydrology must be present,
Type:	ss disturbed or problematic.
Pydric : Pydric : Remarks:	
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Settle Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Vestand Hydro Cincludes capillary fringe) Wetland Hydro Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	0.11.5
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Drift Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Table Present? Yes No Depth (inches): Saturation (A3) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrogen Sulfide Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Soil Present? Yes <u>√</u> No
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Marks (B1) (Nonriverine) Surface Soil Cracks (B6) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Drift Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Presence Of Reduced (C7) Water-Stained Leaves (B9) Water Table Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): Saturation Present? Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	
Surface Water (A1) Salt Crust (B11) High Water Table (A2) Situration (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available described in the property of the p	econdary Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Water Marks (B1) (Riverine)
Mater Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Sediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	Drift Deposits (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): Second Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Drainage Patterns (B10)
Drift Deposits (B3) (Nonriverine)	Dry-Season Water Table (C2)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Crayfish Burrows (C8)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Saturation Visible on Aerial Imagery (C9
Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	_ Shallow Aquitard (D3)
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches):	FAC-Neutral Test (D5)
Surface Water Present? Yes No ✓ _ Depth (inches): Water Table Present? Yes No ✓ _ Depth (inches): Saturation Present? Yes No ✓ _ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	_ 1 AO-Neutral Test (D3)
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Wetland Hydro (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	
Saturation Present? Yes No ✓ Depth (inches):	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	ology Present? Yes No _ ✓
	Y.
Remarks:	

Project/Site: Anderson 53	(City/Count	y: <u>Sonoma</u>	County	Sa	mpling Date	e: <u>June 2</u>	23, 2016
Applicant/Owner: University District, LLC				State:	Sa Sa	mpling Poir	nt:	48
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfiel	d :	Section, T	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	ef (concave,	convex, none): mix	ked		Slope (%):	:_<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.3</u>	342442		_ Long: <u>-122.666</u>	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slo	pes			NWI c	lassificatio	n: <u>PEM2/</u>	Seasonal	
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrologys	significantly	disturbed?	Are '	"Normal Circumstar	nces" prese	ent? Yes_	✓ N	lo
Are Vegetation, Soil, or Hydrology r				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map				ocations, trans	sects, in	nportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes N	lo	le t	he Sampled	I Aroa				
Hydric Soil Present? Yes N			hin a Wetlaı			No <u>√</u>		
Wetland Hydrology Present? Yes <u>√</u> N	lo							
Remarks:								
VEGETATION – Use scientific names of plan	its.							
			nt Indicator	Dominance Tes	t workshe	et:		
Tree Stratum (Plot size:)			? Status	Number of Domi			0	(4)
1				That Are OBL, F	ACVV, OF F	AC		(A)
3.				Total Number of Species Across A			1	(B)
4.								(D)
				Percent of Domir That Are OBL, FA			0.00	(A/B)
Herb Stratum (Plot size: 1m^2)	400	.,	E A C. I.					
Phalaris aquatica Vicia sativa	4			Prevalence Inde			tiply by:	
			UPL	OBL species				
3				FACW species				
5.				FAC species				
			over	FACU species	100	x 4 = _	400	_
Herb Stratum (Plot size: 1 m^2)				UPL species	1	_ x 5 = _	5	_
1				Column Totals:	101	_ (A) _	405	(B)
2				Prevalence	Index = F	R/Δ =	4.01	
3				Hydrophytic Ve			4.01	
4				Dominance	_			
6.				Prevalence I				
7.				Morphologic	al Adaptati	ons¹ (Provi		
8						on a separa	,	
		= Total C	over	Problematic	Hydropnyt	ic Vegetation	on (Expla	ıın)
Woody Vine Stratum (Plot size:)				¹ Indicators of hyd	tric soil an	d wetland h	vdrology	muet
1				be present, unles				iiust
2			over	Hydrophytic				
				Vegetation			,	
% Bare Ground in Herb Stratum 0	r of Biotic Ci	rust	<u>U</u>	Present?	Yes	No		
Remarks:								

Double Down Art	Depth (inches)	Color (moist)	%	Color (moist)	ox Features %	Type ¹	Loc ²	Texture	Remarks
Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Thousand Company Compa						, ype	LUC		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. To the content of the content									
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1)	3-12	10 YR 4/3		10 YR 3/3				clay loam	mixed matrix; faint mottles
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1)									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									_
Histosol (A1)	Type: C=Co	ncentration. D=De	pletion. RM	I=Reduced Matrix. C	S=Covered o	or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Stripped Matrix (\$6)									
Black Histic (A3)	Histosol ((A1)		Sandy Red	ox (S5)			1 cm l	Muck (A9) (LRR C)
Hydrogen Sulfide (A4)	Histic Ep	ipedon (A2)		Stripped M	atrix (S6)			2 cm l	Muck (A10) (LRR B)
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) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No ✓ Remarks: VPDROLOGY Hydric Soil Present? Yes No ✓ Presence (A11) Sati Crust (B11) Sediment (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Riverine) Sediment Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sufface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Induction Visible on Aerial Imagery (C9) Depth (inches): Surface Water (Present? Yes No ✓ Depth (inches): Surface Water Present? Yes No ✓ Depth (inches): Sutration Prese	Black His	stic (A3)		Loamy Mud	cky Mineral (F1)		Reduc	ced Vertic (F18)
Tem Muck (A9) (LRR D)	Hydroger	n Sulfide (A4)		Loamy Gle	yed Matrix (F	⁻ 2)		Red P	arent Material (TF2)
Depleted Below Dark Surface (A11)	Stratified	Layers (A5) (LRR	C)	Depleted M	latrix (F3)			Other	(Explain in Remarks)
Thick Dark Surface (A12)	1 cm Mud	ck (A9) (LRR D)		Redox Dar	k Surface (F	6)			
Sandy Mucky Mineral (S1)			ce (A11)						
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:					•	3)			
Restrictive Layer (if present): Type:				Vernal Poo	ls (F9)				
Type:								unless	disturbed or problematic.
Popth (inches):									
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)	• • • • • • • • • • • • • • • • • • • •								,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B11) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (inc	:hes):						Hydric Soi	Present? Yes No <u>√</u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Sult Crust (B11) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (B7) 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 ✓ Depth (inches): Wetland Hydrology Present? Yes ✓ No Monitoring well, aerial photos, previous inspections), if available:	Remarks:								
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B3) (Riverine) Muster Marks (B1) (Nonriverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C1) Inundation Visible on Aerial Imagery (B7) 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 ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): Wetland Hydrology Present? Yes ✓ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Riverine) Biotic Crust (B12) Saturation (A3) Mater Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B2) (Riverine) Drift Deposits (B3) (
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (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 (C1) 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) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C3) 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 _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Water Table Present? Yes No Present Present? Yes	-			di abaali all that ann	l)			Cooo	nder (Indicators (2 or more required)
High Water Table (A2)			one require						•
Aquatic Invertebrates (B13)		, ,			` ,				
Water Marks (B1) (Nonriverine)									
Sediment Deposits (B2) (Nonriverine)		, ,							
Drift Deposits (B3) (Nonriverine)		, , ,	*						
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C6 Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Vater-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No _ ✓ Depth (inches): Vater Table Present? Yes No _ ✓ Depth (inches): Vater Table Present? Yes No _ ✓ Depth (inches): Vater Table Present? Yes No _ ✓ Depth (inches): Vater Table Present? Yes Valer Table Present? Yes Valer Vater Table Present? Yes Valer Vater	Sedimen	t Deposits (B2) (No	onriverine)			_	_		
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 _✓ Depth (inches): Water Table Present? Yes No _✓ Depth (inches): Saturation Present? Yes No _✓ Depth (inches): Wetland Hydrology Present? Yes ✓ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Drift Dep	osits (B3) (Nonriv	erine)						
	Surface S	Soil Cracks (B6)		Recent Iro	on Reduction	in Tille	d Soils (Ce	6) 8	Saturation Visible on Aerial Imagery (CS
Field Observations: Surface Water Present? Yes No _ ✓ _ Depth (inches): Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundatio	on Visible on Aerial	Imagery (E	37) Thin Mucl	Surface (C	7)		8	Shallow Aquitard (D3)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water-St	ained Leaves (B9)		Other (Ex	plain in Rem	arks)		F	AC-Neutral Test (D5)
Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): Wetland Hydrology Present? Yes ✓ _ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observ	vations:							
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Wate	er Present?	Yes	No <u>✓</u> Depth (in	iches):				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table I	Present?	Yes	No <u>√</u> Depth (in	iches):				
	(includes cap	illary fringe)							y Present? Yes <u>√</u> No
Remarks:	Describe Rec	orded Data (streat	n gauge, m	ionitoring well, aerial	pnotos, prev	ious ins	pections),	ıı avalladle:	
Remarks:	Damada								
	remarks:								

Project/Site: Anderson 53		City/County	: Sonoma	County	Sa	ampling Date	e: <u>June 2</u>	23, 2016
Applicant/Owner: University District, LLC				State:C	A Sa	mpling Poin	ıt:	49
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfield	<u> </u>	Section, To	wnship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relief	(concave,	convex, none): mix	œd	§	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: 38.	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slop								
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrology signature.	-			'Normal Circumstar			✓ N	0
Are Vegetation, Soil, or Hydrology na				eeded, explain any a				
SUMMARY OF FINDINGS – Attach site map s								s, etc.
Hydrophytic Vegetation Present? Yes✓ No	l	lo th	a Camplad	I Area				
Hydric Soil Present? Yes No			ie Sampled in a Wetlai		:	No <u>√</u>		
Wetland Hydrology Present? Yes No		With	iii a wetiai	103		NO		
Remarks:								
VEGETATION – Use scientific names of plant	s.							
		Dominant	Indicator	Dominance Test	workshe	et:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Domir	nant Spec			
1				That Are OBL, FA	ACW, or F	AC:	3	(A)
2				Total Number of				
3				Species Across A	All Strata:		3	(B)
4		= Total Co		Percent of Domin			100	(A (D)
Herb Stratum (Plot size: 1m^2)		_ = Total Co	VEI	That Are OBL, FA	ACW, or F	-AC:	100	(A/B)
1. Lythrum hyssopifolium	20	Y	OBL	Prevalence Inde				
2. Pleuropogon californicus	10			Total % Cove				
3. <u>Polygonum aviculare</u>				OBL species _				
4. Festuca perennis			FAC_	FACW species				
5. Polypogon monspeliensis	25		FACW	FAC species _ FACU species		x 3 = _ x 4 =		_
Herb Stratum (Plot size: 1 m^2)		= Total Co	ver	UPL species _				_
1. <u>Hordeum marinum ssp. gussoneanum</u>	5	N	FAC	Column Totals:				
2				_		('')		_ (=)
3				Prevalence			2.15	_
4				Hydrophytic Veg				
5				✓ Dominance				
6				✓ Prevalence I Morphologica			do suppoi	rtina
7				Morphologica data in Re	emarks or	on a separa	ate suppoi	ung
8		= Total Co		Problematic	Hydrophy	tic Vegetatio	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)		_ = 10ta1 C0	vei					
1				¹ Indicators of hyd				nust
2				be present, unles	s disturbe	ed or probler	nauc.	
		= Total Co	ver	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum5 % Cover	of Biotic C	rustC)	Present?	Yes _	✓ No		
Remarks:				1				

Depth	scription: (Describe Matrix			ox Feature				,
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10 YR 2/2	100					clay	
	-							
		· ——						
		· — —						
¹Type: C=C	Concentration, D=Dep	letion RM=Re	educed Matrix. C	S=Covered	or Coate	d Sand Gr	rains. ² Loca	tion: PL=Pore Lining, M=Matrix.
	I Indicators: (Applic							or Problematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy Red	lox (S5)			1 cm Mu	uck (A9) (LRR C)
Histic E	Epipedon (A2)		Stripped M					uck (A10) (LRR B)
	Histic (A3)		Loamy Mu				Reduce	d Vertic (F18)
	jen Sulfide (A4)		Loamy Gle	-	(F2)			rent Material (TF2)
	ed Layers (A5) (LRR (C)	Depleted N				Other (E	Explain in Remarks)
	luck (A9) (LRR D)	(8.4.4)	Redox Dar		,			
	ed Below Dark Surfact Dark Surface (A12)	e (A11)	Depleted D				3Indicators o	f hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		-0)			ydrology must be present,
-	Gleyed Matrix (S4)		vernari oc)13 (1 J)				sturbed or problematic.
	Layer (if present):						1	
• • • •	nches):		_				Hydric Soil F	Present? Yes No✓
Remarks:							1.,	
HYDROLO	OGY							
	ydrology Indicators:							
-	licators (minimum of o		heck all that ann	dv)			Second	lary Indicators (2 or more required)
	e Water (A1)	ne required, o	Salt Crus	•				ater Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Cru	` '				diment Deposits (B2) (Riverine)
Saturat	` ,		Aquatic Ir		s (B13)			ft Deposits (B3) (Riverine)
	Marks (B1) (Nonriver i	ine)	Hydrogen					ainage Patterns (B10)
	ent Deposits (B2) (No					Livina Roo		y-Season Water Table (C2)
	eposits (B3) (Nonrive		Presence		_	-		ayfish Burrows (C8)
	e Soil Cracks (B6)	,	Recent Ire					turation Visible on Aerial Imagery (C9)
· 	tion Visible on Aerial I	magery (B7)	Thin Muc				·	allow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex					C-Neutral Test (D5)
Field Obse	. , ,			•	,		<u> </u>	
Surface Wa	ater Present? Y	es No	Depth (ir	nches):				
Water Table			Depth (ir					
Saturation F			Depth (ir				and Hydrology	Present? Yes No
(includes ca	apillary fringe)							
Describe Re	ecorded Data (stream	gauge, monito	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
Remarks:								
Remarks:								
Remarks:								

Project/Site: Anderson 53		City/County	y: <u>Sonoma</u>	County	Sa	ampling Date	e: <u>June 2</u>	23, 2016
Applicant/Owner: University District, LLC				State:	CA Sa	ampling Poir	nt:!	50
Investigator(s): L. Stromberg, D. Wiemeyer, T. Winfiel	d	Section, To	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local relie	f (concave,	convex, none): mix	xed	<	Slope (%):	:_<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.</u>	342442		Long: -122.666	735	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake clay loam, 2 to 5 % slo	pes			NWI c	lassification	on: PEM2/	Seasonal	
Are climatic / hydrologic conditions on the site typical for this			,					
Are Vegetation, Soil, or Hydrologys	ignificantly	disturbed?	Are '	'Normal Circumstar	nces" pres	sent? Yes	✓ N	lo
Are Vegetation, Soil, or Hydrologyn				eeded, explain any				
SUMMARY OF FINDINGS – Attach site map			ng point l	ocations, trans	sects, ir	mportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes ✓ N	0	le th	ne Sampled	I Aroa				
Hydric Soil Present? Yes N	_		nin a Wetlaı		5	No <u></u>	,	
Wetland Hydrology Present? Yes N	∘							
Remarks:								
VEGETATION – Use scientific names of plan	ts.							
		Dominant		Dominance Tes	t worksh	eet:		
Tree Stratum (Plot size:)	% Cover			Number of Domi				
1				That Are OBL, F	ACW, or F	-AC:	1	(A)
2.				Total Number of			1	(D)
3				Species Across A	Ali Strata:			(B)
··-		= Total Co		Percent of Domir That Are OBL, F			100	(A/R)
Herb Stratum (Plot size:1m^2)							100	(٨١٥)
1. <u>Hordeum marinum ssp. gussoneanum</u>				Prevalence Inde				
2. Rumex pulcher			<u>FAC</u>	Total % Cov				
3. <u>Festuca perennis</u>	85		FAC	OBL species _ FACW species _				
4			·	FAC species _				
5		= Total Co	over	FACU species				_
Herb Stratum (Plot size: 1 m^2)		_ rotar oc	3461	UPL species				_
1				Column Totals:			300	
2				5 .		D./A	2.00	
3						B/A =		
4				Hydrophytic Ve ✓ Dominance	_			
5				✓ Prevalence I				
6				Morphologic			ide suppor	rting
8.			·	data in R	emarks or	on a separ	ate sheet))
		= Total Co	over	Problematic	Hydrophy	tic Vegetation	on¹ (Expla	in)
Woody Vine Stratum (Plot size:)				1				
1				¹ Indicators of hyd be present, unles				must
2			·					
		= Total Co	over	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0 % Cover	r of Biotic C	rust(0	Present?	Yes _	✓ No		
Remarks:								

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

Depth	Matrix		Redox	K Feature:	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-6	10 YR 2/2	100					clay	
¹Type: C=C	oncentration, D=De	oletion RM=F	Reduced Matrix CS	=Covered	or Coate	d Sand Gi	rains ² Loca	tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applie							or Problematic Hydric Soils ³ :
Histosol			Sandy Redo		,			ick (A9) (LRR C)
	pipedon (A2)		Stripped Ma					ick (A10) (LRR B)
	istic (A3)		Loamy Mucl		l (F1)			d Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-				ent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		(- –)			explain in Remarks)
	uck (A9) (LRR D)	,	Redox Dark		F6)			
	d Below Dark Surfac	ce (A11)	Depleted Da					
Thick Da	ark Surface (A12)		Redox Depr	essions (I	F8)		³ Indicators of	f hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland hy	drology must be present,
Sandy C	Sleyed Matrix (S4)						unless dis	turbed or problematic.
Restrictive	Layer (if present):							
Type:			<u></u>					
Depth (in	ches):						Hydric Soil P	resent? Yes No ✓
Remarks:	,							
r torriar no.								
HYDROLO	GY							
Wetland Hv	drology Indicators	:						
_	cators (minimum of		check all that annly	<i>(</i>)			Second	ary Indicators (2 or more required)
-		one required,						
	Water (A1)		Salt Crust	. ,				tter Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus		.=			diment Deposits (B2) (Riverine)
Saturati			Aquatic Inv					ft Deposits (B3) (Riverine)
	larks (B1) (Nonrive		Hydrogen					inage Patterns (B10)
	nt Deposits (B2) (No				_	-		-Season Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence of					ayfish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reducti	on in Tille	d Soils (C6	S) Sat	turation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)		Sha	allow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Exp	lain in Re	marks)		FA	C-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	/es N	o <u>√</u> Depth (inc	hes):				
Water Table	Present?	res N	o <u>√</u> Depth (inc	ches):				
Saturation P			o ✓ Depth (inc				and Hydrology	Present? Yes No ✓
(includes cap	oillary fringe)	1031	o Depti (inc			_ ****	ana riyarology	11030III. 103 110
	corded Data (stream	n gauge, mor	itoring well, aerial p	hotos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Petaluma Hill Road		City/Co	unty: <u>Sonoma</u>	County	Sa	ampling Dat	e: July 2	8, 2016
Applicant/Owner: University District, LLC				State:(CA Sa	ampling Poi	nt:	Α
Investigator(s): T. Winfield		Section	n, Township, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local r	elief (concave,	convex, none): mi	ixed		Slope (%)	<5%
Subregion (LRR): Mediterranean California (LRR C)								
Soil Map Unit Name: Clear Lake Clay, sandy substratum								
Are climatic / hydrologic conditions on the site typical for this			_					
Are Vegetation, Soil, or Hydrology sig	-			Normal Circumsta			✓ N	0
Are Vegetation, Soil, or Hydrology na				eded, explain any				
SUMMARY OF FINDINGS – Attach site map s								s, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No			ls the Sampled		ie.	No_ ✓	,	
Wetland Hydrology Present? Yes No			William a Wellan	10.				
Remarks:								
Site is located along the east side of Petalum roadway. Agricultural fields to the east are r				rainage along	the bas	se of the	elevate	d
, ,			,					
VEGETATION – Use scientific names of plant		Dami	nant Indicator	Dominance Tes	. 4	4-		
			es? Status	Number of Dom				
1				That Are OBL, F			1	(A)
2				Total Number of	Dominant	t		
3				Species Across	All Strata:		2	(B)
4				Percent of Domi			=0	
Herb Stratum (Plot size: 1m^2)		_ = 10ta	ii Covei	That Are OBL, F	ACW, or I	FAC:	50	(A/B)
1				Prevalence Ind	ex worksl	neet:		
2				Total % Cov				
3				OBL species				
4				FACW species				_
5				FAC species FACU species				_
Herb Stratum (Plot size: 1 m^2)		_ = 1 ota	ii Cover	UPL species				_
1. Helminthotheca echioides	60	X	FAC	Column Totals:				— (B)
2. <u>Festuca perennis</u>	5		FAC					_ (=)
3. <u>Epilobium brachycarpum</u>	15		NI/UPL	Prevalence	e Index =	B/A =	3.51	_
4. Phalaris aquatica	20	X	FACU	Hydrophytic Ve	_			
5. <u>Vicia sativa</u>				Dominance				
6. Festuca bromoides				Prevalence				
7. <u>Kickxia elatine</u>			UPL	Morphologic data in R	cal Adapta Remarks o	itions' (Prov r on a separ	ide suppo ate sheet)	rting
8				Problemation				
Woody Vine Stratum (Plot size:)	102	_ = 1 ota	l Cover					
1				¹ Indicators of hy				must
2				be present, unle	ss disturb	ed or proble	matic.	
		= Tota	l Cover	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum5	of Biotic C	rust	0	Present?	Yes _	No	√	
Remarks:				1				

US Army Corps of Engineers

Arid West – Version 2.0

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

(inches) Color (moist) %	Redox Features Color (moist) % Type ¹ Loc ²	Texture Remarks
0.40	Coloi (Illoist) % Type Loc	
0-10 10YR3/2 40		<u>cloam</u> <u>unmottled</u>
10YR3/360		<u>cloam</u> <u>unmottled</u>
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 t	o all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)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)	Other (Explain in Remarks)
Depleted Below Dark Surface (A1		
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		
Depth (inches):		Hydric Soil Present? Yes No✓
Wetland Hydrology Indicators:		
		Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Water Marks (B1) (Riverine)Sediment Deposits (B2) (Riverine)Drift Deposits (B3) (Riverine)
Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11)Biotic Crust (B12)Aquatic Invertebrates (B13)Hydrogen Sulfide Odor (C1)	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriver	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one recompleted of the 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)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one recompleted of the 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)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Coots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches): We	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches): We	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches): We	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches): We	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one red 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 Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (ry (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches): No Depth (inches): We	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Petaluma Hill Road	(City/Cou	nty: <u>Sonoma</u>	County	S	Sampling Date: July 28, 2016		
Applicant/Owner: University District, LLC				State:(CA S	ampling Poin	t:	В
Investigator(s): T. Winfield	:	Section,	Township, Rai	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local re	lief (concave, d	convex, none): <u>mi</u>	xed	S	Slope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: 38.3	344868		Long: -122.666	767	Da	atum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratun	n, drained	, 0 to 29	% slopes	NWI c	classificati	on: NA		
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No_	(If no, expla	ain in Rem	narks.)		
Are Vegetation, Soil, or Hydrologys	ignificantly	disturbed	l? Are "	Normal Circumsta	nces" pre	sent? Yes _	✓_ N	ο
Are Vegetation, Soil, or Hydrologyn				eded, explain any	answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site map				ocations, tran	sects, i	mportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	0 _ ✓		the Sampled ithin a Wetlar		s	_ No <u>√</u>	_	
Site is located along the east side of Petalun roadway. Agricultural fields to the east are				rainage along	the bas	se of the e	elevated	k
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size:) 1	% Cover	Species	ant Indicator s? Status	Dominance Tes Number of Domi That Are OBL, F	nant Spe	cies	0	(A)
2				Total Number of Species Across			1	(B)
4				Percent of Domi That Are OBL, F			0	(A/B)
Herb Stratum (Plot size: 1m^2) 1.				Prevalence Inde	ex works	heet:		
2.				Total % Cov			iply by:	
3.				OBL species				
4.				FACW species				
5				FAC species	0	x 3 =	0	_
1 m/2		= Total	Cover	FACU species				_
Herb Stratum (Plot size: 1 m^2) 1. Dipsacus sativus	80	X	NI/UPL	UPL species				
Dipsacus sativus Phalaris aquatica				Column Totals:	92	(A)	450	_ (B)
3. <u>Hirschfeldia incana</u>				Prevalence	e Index =	B/A =	4.89	_
4.				Hydrophytic Ve	getation	Indicators:		
5				Dominance				
6				Prevalence				
7						ations¹ (Provid r on a separa		
8				Problematic				
Woody Vine Stratum (Plot size:)	92	= Total	Cover					
1				¹ Indicators of hybe present, unle				nust
				Hydrophytic Vegetation				
% Bare Ground in Herb Stratum10	of Biotic C	rust	0	Present?	Yes _	No	<u>√</u>	
Remarks:								

Depth _ (inches) _	Color (moist)	%	Cole	or (moist)	%	_Type ¹	Loc ²	Texture	Remarks
			<u> </u>						
	10YR2/2	50	-					<u>cloam</u>	unmottled
	10YR3/2	50						cloam	unmottled
		_							
					-				-
			-						
Type: C=Con	ncentration, D=De	 pletion, RN	/=Reduc	ed Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
	dicators: (Appli								s for Problematic Hydric Soils ³ :
Histosol (A	A1)			Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)
Histic Epip	pedon (A2)			Stripped Ma	atrix (S6)			2 cm	Muck (A10) (LRR B)
Black Histi	tic (A3)			Loamy Mud	ky Minera	l (F1)		Redu	iced Vertic (F18)
Hydrogen	Sulfide (A4)			Loamy Gley	yed Matrix	(F2)		Red	Parent Material (TF2)
Stratified L	Layers (A5) (LRR	C)		Depleted M	atrix (F3)			Othe	r (Explain in Remarks)
	k (A9) (LRR D)			Redox Dark					
	Below Dark Surface	ce (A11)		Depleted D				2	
	k Surface (A12)			Redox Dep	•	F8)			s of hydrophytic vegetation and
-	icky Mineral (S1)		_	Vernal Poo	ls (F9)				d hydrology must be present,
	eyed Matrix (S4)							unless	disturbed or problematic.
	ayer (IT present):								
Туре:									,
Type: Depth (inch								Hydric So	il Present? Yes No <u>√</u>
Type: Depth (inch								Hydric So	il Present? Yes No _✓
Type: Depth (inch Remarks:	nes):							Hydric So	il Present? Yes No <u>√</u>
Type: Depth (incherent learners) Remarks: YDROLOG	nes):							Hydric So	il Present? Yes No _✓
Type: Depth (inch Remarks: YDROLOG Wetland Hydro	nes):	:		c all that appl	y)				il Present? Yes No✓
Type:	nes):	:			-			Seco	ondary Indicators (2 or more required)
Type: Depth (inchesternation) Remarks: YDROLOG Wetland Hydriver Primary Indicate Surface W	rology Indicators ttors (minimum of	:		_ Salt Crust	(B11)			Seco	ondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Type: Depth (inchemarks: YDROLOG Wetland Hydromary Indicated Surface Wetligh Water	rology Indicators stors (minimum of Vater (A1) er Table (A2)	:	ed; check	_ Salt Crust _ Biotic Cru	(B11) st (B12)	es (B13)		Second —	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (inchemarks: PYDROLOG Wetland Hydromany Indicate Surface W High Wate Saturation	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3)	: one requir	ed; check	Salt Crust Biotic Crust Aquatic In	(B11) st (B12) vertebrate	` ,		Second —	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Type: Depth (inch Remarks: YDROLOG Wetland Hydro Primary Indicat Surface W High Wate Saturation Water Mar	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive	: one requir	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen	(B11) st (B12) vertebrate Sulfide O	dor (C1)	Living Ro	Seco	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (inchemologies) Remarks: YDROLOG Wetland Hydremologies Surface Wetland High Wate High Wate Saturation Water Mar Sediment	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No	: one requir rine) onriverine	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe	dor (C1) res along	-	<u>Sect</u>	water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Depth (inchemologies) Remarks: YDROLOG Wetland Hydremologies Surface Wetland High Wate High Wate Saturation Water Mar Sediment I Drift Depos	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No	: one requir rine) onriverine	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence	(B11) st (B12) vertebrate Sulfide Oc Rhizosphe of Reduce	dor (C1) res along ed Iron (C4	1)	Section ————————————————————————————————————	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (incher Remarks: IYDROLOG Wetland Hydre Primary Indicate Water Mare Saturation Water Mare Sediment Drift Depose Surface Screen Surface Screen Sediment Sedime	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No	: one requir rine) onriverine erine)	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti	dor (C1) res along ed Iron (C4 on in Tille	1)	Second Se	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5)
Type:	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No posits (B3) (Nonrive coil Cracks (B6) n Visible on Aerial	: one requir rine) onriverine erine)	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck	(B11) st (B12) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti s Surface (dor (C1) res along ed Iron (C4 on in Tille (C7)	1)	Second — — — — — — — — — — — — — — — — — — —	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5) Shallow Aquitard (D3)
Type:	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No rive soil Cracks (B6) n Visible on Aerial ained Leaves (B9)	: one requir rine) onriverine erine)	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	(B11) st (B12) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti s Surface (dor (C1) res along ed Iron (C4 on in Tille (C7)	1)	Second — — — — — — — — — — — — — — — — — — —	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No rivis (B3) (Nonrivis coil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations:	: one requir rine) onriverine erine)	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Or Rhizosphe of Reduce on Reducti s Surface (plain in Re	dor (C1) ares along ad Iron (C4 on in Tille (C7) amarks)	t) d Soils (Co	Second — — — — — — — — — — — — — — — — — — —	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5) Shallow Aquitard (D3)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No rists (B3) (Nonrive roil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations:	: one requir rine) onriverine erine) Imagery (ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oc Rhizosphe of Reduce on Reducti s Surface (colain in Re	dor (C1) ares along ad Iron (C4 on in Tille (C7) amarks)	t) d Soils (Co	Second — — — — — — — — — — — — — — — — — — —	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5) Shallow Aquitard (D3)
Type:	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No rive) soil Cracks (B6) n Visible on Aerial sined Leaves (B9) ations: Present?	: pone requir ponriverine prine) Imagery (Yes	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (blain in Re ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	t) d Soils (Co	Second Se	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No risits (B3) (Nonrive roil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations: Present? resent?	: one requir onriverine erine) Imagery ('es 'es 'es	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (colain in Re ches): ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	4) d Soils (Co	Second	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C5) Shallow Aquitard (D3)
Type:	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No rive (B3) (Nonrive roil Cracks (B6) n Visible on Aerial sined Leaves (B9) ations: Present?	: one requir onriverine erine) Imagery ('es 'es 'es	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (colain in Re ches): ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	4) d Soils (Co	Second	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No risits (B3) (Nonrive roil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations: Present? resent?	: one requir onriverine erine) Imagery ('es 'es 'es	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (colain in Re ches): ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	4) d Soils (Co	Second	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No risits (B3) (Nonrive roil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations: Present? resent?	: one requir onriverine erine) Imagery ('es 'es 'es	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (colain in Re ches): ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	4) d Soils (Co	Second	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type:	rology Indicators stors (minimum of vater (A1) er Table (A2) n (A3) rks (B1) (Nonrive Deposits (B2) (No risits (B3) (Nonrive roil Cracks (B6) n Visible on Aerial ained Leaves (B9) ations: Present? resent?	: one requir onriverine erine) Imagery ('es 'es 'es	ed; check	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide Oo Rhizosphe of Reduce on Reducti s Surface (colain in Re ches): ches): ches):	dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	4) d Soils (Co	Second	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Petaluma Hill Road	City/County: Sonoma County Sampling Date: July							8, 2016
Applicant/Owner: <u>University District, LLC</u>				State: (CA S	ampling Point:	:	С
Investigator(s): T. Winfield	;	Section,	Township, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local re	lief (concave,	convex, none): <u>mi</u>	xed	SI	ope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	_ Lat: <u>38.3</u>	344868		Long: -122.666	767	Dat	um: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratur	n, drained	, 0 to 29	% slopes	NWI c	lassificati	on: NA		
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No	(If no, expla	ain in Ren	narks.)		
Are Vegetation, Soil, or Hydrologys	significantly	disturbed	d? Are '	'Normal Circumsta	nces" pre	sent? Yes	✓ No	0
Are Vegetation, Soil, or Hydrologyn				eeded, explain any	answers	in Remarks.)		
SUMMARY OF FINDINGS – Attach site map				ocations, tran	sects, i	mportant f	eature	s, etc.
Hydrophytic Vegetation Present? Yes N Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N Remarks:	o <u> </u>		the Sampled		s	_ No _ ✓	_	
Site is located along the east side of Petalur roadway. Agricultural fields to the east are				rainage along	the bas	se of the el	evated	ŀ
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size:) 1		Specie	ant Indicator s? Status	Dominance Tes Number of Domi That Are OBL, F	nant Spe	cies	1	(A)
2				Total Number of Species Across			2	(B)
4				Percent of Domi That Are OBL, F			50	(A/B)
1				Prevalence Inde	ex works	heet:		
2.				Total % Cov	er of:	Multip	oly by:	
3.				OBL species	0	x 1 =	0	_
4				FACW species				
5				FAC species				_
Herb Stratum (Plot size: 1 m^2)		= Total	Cover	FACU species				_
1. Festuca perennis	60	Х	FAC	UPL species Column Totals:				
2. Phalaris aquatica		Х		Column Totals.		(A)	324	_ (D)
3. <u>Bromus hordeaceus</u>				Prevalence	e Index =	B/A =3	3.78	_
4				Hydrophytic Ve	_			
5				Dominance				
6				Prevalence		3.0° ations¹ (Provid	0 011000r	tina
7						r on a separat		
8		= Total		Problematic	Hydroph	ytic Vegetatior	า ¹ (Explai	in)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydbe present, unlead				nust
2				· '	33 distuit	ed of problem	auc.	
% Bare Ground in Herb Stratum5 % Cover	r of Biotic Cı			Hydrophytic Vegetation Present?	Yes_	No _	√	
Remarks:				1				

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	ndicator o	or confirm	the absence	e of indicators.)		
Depth	Matrix			x Feature		. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks		
0-10	10YR3/2	50					cloam	unmottled		
	10YR3/3	50					cloam	unmottled		
							-	-		
	oncentration, D=Dep					d Sand Gr		ocation: PL=Pore Lining, M=Matrix.		
-	ndicators: (Applic	cable to all L			ed.)			s for Problematic Hydric Soils ³ :		
Histosol	` '		Sandy Red					Muck (A9) (LRR C)		
	pipedon (A2)			Stripped Matrix (S6)				Muck (A10) (LRR B)		
Black His			Loamy Muc	-				ced Vertic (F18)		
	n Sulfide (A4) I Layers (A5) (LRR	C)	Loamy Gley Depleted M		(FZ)			Parent Material (TF2) r (Explain in Remarks)		
	ick (A9) (LRR D)	0)	Redox Dark	` ,	F6)		Other	(Explain in Remarks)		
· —	Below Dark Surfac	ce (A11)	Depleted D		,					
	ark Surface (A12)	, ,	Redox Dep				³ Indicators	s of hydrophytic vegetation and		
Sandy M	lucky Mineral (S1)		Vernal Pool	s (F9)			wetland	d hydrology must be present,		
-	Sleyed Matrix (S4)						unless	disturbed or problematic.		
Restrictive L	ayer (if present):									
Type:										
Depth (inc	ches):						Hydric Soil Present? Yes No _ ✓			
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators	:								
	ators (minimum of		: check all that appl	v)			Seco	ondary Indicators (2 or more required)		
Surface '	*		Salt Crust	-				Water Marks (B1) (Riverine)		
· -	iter Table (A2)		Biotic Crus	` '			Sediment Deposits (B2) (Riverine)			
Saturation	` '		Aquatic In		s (B13)			Drift Deposits (B3) (Riverine)		
	arks (B1) (Nonrive	rine)	Hydrogen					Drainage Patterns (B10)		
· 	nt Deposits (B2) (No	•	Oxidized F			Living Roo		Dry-Season Water Table (C2)		
	oosits (B3) (Nonrive		Presence		_	-		Crayfish Burrows (C8)		
	Soil Cracks (B6)	,	Recent Iro				· · · · · · · · · · · · · · · · · · ·	Saturation Visible on Aerial Imagery (C9)		
	on Visible on Aerial	Imagery (B7				•		Shallow Aquitard (D3)		
	tained Leaves (B9)	0 , (Other (Exp					FAC-Neutral Test (D5)		
Field Observ	vations:									
Surface Water	er Present?	res N	lo Depth (in	ches):						
Water Table			lo Depth (in							
Saturation Pr			lo Depth (in				and Hydrolog	gy Present? Yes No _✓_		
(includes cap	oillary fringe)									
Describe Red	corded Data (strean	n gauge, moi	nitoring well, aerial	photos, pr	evious ins	pections),	if available:			
Remarks:	Remarks:									

Project/Site: Petaluma Hill Road	(City/Cour	nty: <u>Sonoma</u>	County	S	ampling Date	: July 2	8, 2016
Applicant/Owner: University District, LLC				State:	CA S	ampling Point	ı:	D
Investigator(s): T. Winfield	;	Section,	Township, Ra	nge:				
Landform (hillslope, terrace, etc.): Floodplain terrace		Local rel	ief (concave,	convex, none): mix	xed	S	lope (%):	<5%
Subregion (LRR): Mediterranean California (LRR C)	Lat: <u>38.3</u>	344868		Long: -122.666	767	Da	tum: WS	G84
Soil Map Unit Name: Clear Lake Clay, sandy substratu	m, drained	, 0 to 2%	% slopes	NWI c	lassificati	on: NA		
Are climatic / hydrologic conditions on the site typical for thi	s time of yea	ar? Yes	✓ No_	(If no, expla	in in Rem	narks.)		
Are Vegetation, Soil, or Hydrologys	significantly	disturbed	? Are "	Normal Circumstar	nces" pres	sent? Yes _	✓ N	о
Are Vegetation, Soil, or Hydrologyı				eded, explain any	answers i	in Remarks.)		
SUMMARY OF FINDINGS – Attach site map				ocations, trans	sects, i	mportant 1	feature	s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes N	lo <u>√</u>		the Sampled		S	_ No <u></u>	_	
Site is located along the east side of Petaluroadway. Agricultural fields to the east are				rainage along	the bas	se of the e	levated	k
VEGETATION – Use scientific names of plar	nts.							
Tree Stratum (Plot size:) 1.		Species	int Indicator S? Status	Dominance Tes Number of Domin That Are OBL, FA	nant Spec	cies	1	(A)
2				Total Number of Species Across A			2	(B)
4. Herb Stratum (Plot size: 1m^2)				Percent of Domir That Are OBL, F			50	(A/B)
1				Prevalence Inde	x worksl	heet:		
2.				Total % Cov	er of:	Multi	ply by:	
3.				OBL species	0	x 1 =	0	
4				FACW species _				
5				FAC species				_
Herb Stratum (Plot size: 1 m^2)		= Total (Cover	FACU species				_
1. Dipsacus sativus	60	Х	UPL	UPL species Column Totals:			325 445	
2. Phalaris aquatica		Х		Column Totals.	33	(A)	443	_ (D)
3. <u>Foeniculum vulgare</u>				Prevalence	Index =	B/A =	4.68	_
4				Hydrophytic Ve				
5				Dominance				
6				Prevalence I				-t!
7						itions¹ (Provic r on a separa		
8		= Total (Cover	Problematic	Hydrophy	tic Vegetatio	n¹ (Expla	in)
Woody Vine Stratum (Plot size:) 1.				¹ Indicators of hyd				nust
2				be present, unles	ss disturb	ed or problem	iatic.	
% Bare Ground in Herb Stratum5	r of Biotic Ci			Hydrophytic Vegetation Present?	Yes	No _	✓	
Remarks:				<u> </u>	_			

Profile Desc	ription: (Describe	to the depti	n needed to docur	ment the	indicator	or confirn	n the absence	of indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-12	10YR3/2	80		_			cloam	inclusions of rotten rock			
				_	· ——						
				-	· ——						
				-							
				_							
¹ Type: C=Co	ncentration, D=De	pletion, RM=I	Reduced Matrix, CS	S=Covere	d or Coate	d Sand G	rains. ² Loc	cation: PL=Pore Lining, M=Matrix.			
Hydric Soil I	ndicators: (Appli	cable to all L	RRs, unless othe	rwise not	ed.)			for Problematic Hydric Soils ³ :			
Histosol	(A1)		Sandy Red	ox (S5)			1 cm N	Muck (A9) (LRR C)			
Histic Ep	ipedon (A2)		Stripped Ma					Muck (A10) (LRR B)			
Black His			Loamy Mud	ky Minera	ıl (F1)			ed Vertic (F18)			
Hydrogei	n Sulfide (A4)		Loamy Gley	yed Matrix	(F2)		Red P	arent Material (TF2)			
Stratified	Layers (A5) (LRR	C)	Depleted M	atrix (F3)			Other	(Explain in Remarks)			
1 cm Mu	ck (A9) (LRR D)		Redox Dark	Surface	(F6)						
Depleted	Below Dark Surface	ce (A11)	Depleted D	ark Surfac	ce (F7)						
Thick Da	rk Surface (A12)		Redox Dep		F8)			of hydrophytic vegetation and			
-	ucky Mineral (S1)		Vernal Poo	ls (F9)				hydrology must be present,			
-	leyed Matrix (S4)						unless d	listurbed or problematic.			
Restrictive L	.ayer (if present):										
Type:											
Depth (inc	:hes):						Hydric Soil Present? Yes No✓				
Remarks:											
HYDROLO(GY										
Wetland Hyd	Irology Indicators	:									
_	ators (minimum of		check all that appl	v)			Seco	ndary Indicators (2 or more required)			
Surface \	*		Salt Crust	•				Vater Marks (B1) (Riverine)			
	` ,		Biotic Crus	` '			Sediment Deposits (B2) (Riverine)				
Saturatio	ter Table (A2)				o (P12)						
	` ,	\	Aquatic In					Orift Deposits (B3) (Riverine)			
	arks (B1) (Nonrive		Hydrogen		, ,	Linda a Da		Orainage Patterns (B10)			
	t Deposits (B2) (No				_	_		Ory-Season Water Table (C2)			
	osits (B3) (Nonrive	erine)	Presence		,	•		Crayfish Burrows (C8)			
	Soil Cracks (B6)		Recent Iro			d Soils (Ct		Saturation Visible on Aerial Imagery (C9)			
	on Visible on Aerial	Imagery (B7)			` ′		· · · · · · · · · · · · · · · · · · ·	Shallow Aquitard (D3)			
Water-St	ained Leaves (B9)		Other (Exp	olain in Re	emarks)		F	AC-Neutral Test (D5)			
Field Observ	rations:										
Surface Water	er Present?	Yes N	o Depth (in	ches):		_					
Water Table	Present? `	Yes N	o Depth (in	ches):		_					
Saturation Pr	esent?	Yes N	o Depth (in	ches):		Wetl	and Hydrolog	y Present? Yes No✓_			
(includes cap	illary fringe)										
Describe Rec	orded Data (strear	n gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections),	if available:				
Remarks:											