# **Fort Bragg Wetland Report**

Prepared for:

Best Development Group, Sacramento, California

Prepared by:



P.O. Box 102 • Round Mountain, CA 96084

March 2021

#### Introduction

In 2019 the Best Development Group (BDG) contracted with Wildland Resource Managers (WRM) to conduct a Biological Review for a parcel of land within the town of Fort Bragg, California. This BR (WRM 2019) was prepared to meet the Mendocino County's planning requirements pursuant to the California Environmental Quality Act (CEQA). The BR noted that the Natural Resource Conservation Service (NRCS) web soil survey identified one soil type on the parcel classified as "Urban." According to NRCS, this soil is described as found on marine terraces consisting of fluviomarine deposits derived from sedimentary rock with a hydric soil rating: "yes". A "yes" indicates the soil is hydric and capable of supporting hydrophytic vegetation. In response to this finding, BDG received notification that "the applicant shall additionally submit a delineation of all wetland areas on the project site" (email to T. Johnson from LACO and Associates). This wetland report addresses that requirement for a wetland delineation of the parcel.

The parcel property consists of three lots located on the west side of South Franklin Street in the south-central part of Fort Bragg. The legal location includes portions of the Northwest ¼ of Section 18, Township 18 North, Range 17 West (Figure 1). The northern most parcel is a paved parking lot with the center parcel covered with a large building. The southern parcel is vacant and therefore the subject area of this report.



Figure 1

#### Methods

The parcel was visited on the afternoon of March 15, 2021 by WRM's principal biologist for the purpose of determining if wetlands, of any type, are present at the site. On that date, the weather was clear with a strong north wind blowing. Initial inspection of the parcel noted that there was no evidence of any wetland features but rather the site's vegetation consisted of annual grasses and forbs, lacking shrubs and or trees (see photo sections). To be certain that no wetland indicators were present, a systematic survey of the parcel was made following the Army Corp of Engineers (USACE) wetland determination data collection methodology and the definition of wetland boundaries contained in Section 13577 (b) of the California Code of Regulations (see Appendix). To do this, four test locations were selected to represent the general character of the parcel. As depicted on Figure 2 on the following page, one test location was placed within each quadrant of the parcel (northeast, northwest, southwest and southeast). At each location data was collected within a 1-meter square sample plot. At each plot the dominant vegetation was identified, soil structure and type were determined and evidence of hydrology was looked for. Soil structure was determined by excavating an 18+ inch deep hole and noting the soil profile description and any presence or absence of hydric soil indicators. Data was recorded on the USACE "Wetland Determination Data Form – Arid West Region." Data forms for each test location may be found in the appendix.

#### **Results**

No indicators of any type of wetland, stream course, vernal pools or vernal swales were found on the site. There were a limited number of wetland plants found but their frequency of presence was insufficient to constitute a wetland site. There was no evidence of hydric soil nor any wetland hydrology found. No part of this parcel may be considered a wetland area. Table 1 summarizes the data collected at each test plot location.

Table 1

Test plot #	Dominant vegetation	<u>Soils</u>	<u>Hydrology</u>
1	60% hydrophytic	Non-hydric dark sandy loam	none
2	47% upland 48% Fac upland	Non-hydric sandy loam	none
3	85% upland	Non-hydric sand with cobbles	none
4	81% upland	Non-hydric sand with cobbles	none

Figure 2 Test Plot Locations



#### **Additional information**

On the northern two parcels there are additional shrubs and trees that were planted at some time as part of a landscaping effort. Table 2 lists these species, none of which are wetland species and none were found on the southern parcel.

# Table 2 Plant species identified on the northern two parcels

<u>Common name</u>	<u>Scientific name</u>
Monterey Cypress	Cupressus macrocarpa
Macartney rose	Rosa bracteate
Butterfly bush	Buddleja davidii
Mugo pine	Pinus mugo
Japanese quince	Chaenomeles japonica
Shaggy dwarf morning glory	Evolvulus nuttallianus
Common boxwood	Buxus sempervirens
Common myrtle	Myrtus communis
Pacific rhododendron	Rhododendron macrophyllum
Chinese silver grass	Miscanthus sinensis

## For further information regarding this report, please contact:

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Email: skerns7118@aol.com

#### **Appendix**

#### 1. References cited

Army Corp of Engineers reference and guidance letter used to conduct this study:

- . The 1987 Corps of Engineers Wetlands Delineation Manual
- . The Army Corp of Engineers field guide to the identification of the ordinary high-water mark in the arid west region of the western United States (2008),
- . Regulatory Guidance Letter (RGL) 05-05, Ordinary High-Water Mark Identification (12/2005)
- . The Army Corp of Engineers Jurisdictional Determination Form instructional guidebook
- . The Army Corp of Engineers minimum standards for acceptance of aquatic resources delineation reports
- . The Army Corps of Engineers, State of California 2016 wetland plant list
- . The Army Corp of Engineers final map and drawing standards for the South Pacific Division regulatory program.

Turner, Byron E. LACO Associates 2021. Email to Terry Johnson, subject: Fort Bragg City Code, Wetland Delineation Report for Wetland ESHA.

Wildland Resource Managers. 2019. Grocery Outlet Fort Bragg, California Property Biological Review. Unpub. report for Best Development Group, Sacramento, California.

2. Photo page and data sheets for each test location follow this page:

#### **Photo section**



Photo 1 looks north across the southern parcel with South Franklin Street on the right. The building in the center is on the middle parcel. Annual grasses and forbs dominate the south parcel as seen in the photo, no wetlands are evident.



Photo 2 is taken at Sample Plot 4 looking north west across the southern parcel. The fence in the distance is the western edge of the parcel. No wetlands are evident.

#### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: FT Brasq	(	City/County:	F+ 13	Sampling Date: 3/15/20
pplicant/Owner: 1. Johnson				State: CA Sampling Point:
nvestigator(s): S. Kerns				
andform (hillslope, terrace, etc.):		Local relief (	concave,	convex, none): None Slope (%):
Subregion (LRR):	Lat:3 <sup>(</sup>	9,42961	4	Long: - 123, 804985 Datum:
Soil Map Unit Name: Urban				NWI classification:
Are climatic / hydrologic conditions on the site typical for th	is time of yea	ar? Yes V		
re VegetationN_, Soil _N, or HydrologyN				"Normal Circumstances" present? Yes No
re Vegetation, Soil, or Hydrology	naturally pro	blematic?		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map				
				, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes X I Hydric Soil Present? Yes X I Yes X I	No X	Is the	Sampled	
Wetland Hydrology Present? Yes	No X	withir	a Wetlar	nd? Yes No
Remarks:				
/EGETATION				T2
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant   Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2				
3	_			Total Number of Dominant Species Across All Strata:  [B]
4				Percent of Dominant Species
Total Cove	er:()			Percent of Dominant Species That Are OBL, FACW, or FAC:  (A
Sapling/Shrub Stratum  1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species 5 x1= 5
4				FACW species x2 =
5				FAC species 45 x3 = 135
Total Cov	er:	_		FACU species 2 x 4 = 8
1. Plantago lanceolata	b-	11	F. R. C.	UPL species 45 x5 = 225
2. Trifolium subtervaneum	40	Ves Ves	FAC	Column Totals: <u>97</u> (A) <u>370</u> (
3. Eschscholzia californica		yes .	UP	Prevalence Index = B/A =3, 8
4. Rumer acetosella	- 5	yes .	061	Hydrophytic Vegetation Indicators:
5. Danthonia californica	40	-	FAC	✓ Dominance Test is >50%
6. Scorzonemides autunalis		No	FACU	/V Prevalence Index is ≤3.01
7. Oxalis Des-caprae	1	No	UP	Morphological Adaptations <sup>1</sup> (Provide supporting
8. anthoxanthum odaratum	)	No	FACU	data in Remarks or on a separate sheet)
Total Cov	er: 98	_	- Alexander	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum				Indicators of hydric call and walled hydric
1.				<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present.
ZTotal Cov	(er ()			Hydrophytic
	NATIONAL POLICE	-		Vegetation
V1.	er of Biotic C			Present? Yes No
Remarks: Hydrophytic plants are	presen	of bet	not	sufficient
To quality as a wet	land o	lomina	nts	
I would as a				
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rofile Description: (Describe to the dept		on mandators.
inches) Color (moist) %	Redox Features  Color (moist) % Type L	oc <sup>2</sup> Texture Remarks
1-18" 10R3-1 100	Select (moist) 70 Type L	Sand Iloam
18 JOKS 1 100		Jana / 10 a in
		7.
Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated S	and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable to all L	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
_ Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	The special of the order of th
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	3Indicators 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:		
		8
	*	3
Wetland Hydrology Indicators:	: check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required		Secondary Indicators (2 or more required)
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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) Dritt 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	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 Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): 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) Saturation Violible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
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Field Observations: Surface Water Present? Yes! Water Table Present? Yes!	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 Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ing Roots (C3) Crayfish Burrows (C8) Crayfish Burrows (C8) Saturation Visible on Acrial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No

# WETLAND DETERMINATION DATA FORM – Arid West Region

roject/Site: Ft. Bragg		City/C	County: Ft. 13	Vagg Sampling Date: 3/15/3021
				State: CA Sampling Point: 2
vestigator(s): S, Kerns		Secti	on, Township, Ra	ange: NW 14 Sec 18 T18N 1717W
andform (hillslope, terrace, etc.):	lat	Loca	l relief (concave,	convex, none):None Slope (%):
				Long:
oil Map Unit Name: Ur ban				NWI classification:
re climatic / hydrologic conditions on th				
re Vegetation, Soil, or F				"Normal Circumstances" present? Yes No
re Vegetation _ N_, Soil _ N, or H				eeded, explain any answers in Remarks.)
UMMARY OF FINDINGS - AT	tach site map show	ing san	npling point	locations, transects, important features, el
Hydrophytic Vegetation Present?	Yes No		Is the Sample	d Araa
Hydric Soil Present?	Yes No	_	within a Wetla	. /
Wetland Hydrology Present?	Yes No		within a wetla	nui les No
Remarks:				
EGETATION				
	Absc	olute Do	minant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	-		ecies? Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum	Total Cover:			That Are OBL, FACW, or FAC: (All
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species
4				FACW species x 2 =
5				FAC species
	Total Cover:			FACU species
Herb Stratum  1. Paphanus raphan	istoria 1	2	No up	UPL species
2. Bromus diandrus		1 -1		- Column Totals: <u>95</u> (A) <u>927</u> (B
3. Daurus carota			No FACU	Prevalence Index = B/A =4, 49
4. Pumer acetoselle	· /		ies FACU	-
5. Medicago Poly			Jes FACU	- 1
6. anthoxanthum			yes FACL	-
7. Oxalis pes-capr		~ 1	ies up	Morphological Adaptations <sup>1</sup> (Provide supporting
8.				data in Remarks or on a separate sheet)
	Total Cover:	95		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum	**	-		1
1		<u> </u>		Indicators of hydric soil and wetland hydrology must be present.
2				-
	Total Cover:			Hydrophytic Vegetation
% Bare Ground in Herb Stratum	% Cover of Bi	iotic Crust		Present? Yes No
Remarks:			£	<del></del>
*				
1.1				

Profile Description: (Describe to the depth needed to document the indicator or confirmation of the depth needed to document the indicator or confirmation of the depth needed to document the indicator or confirmation or co	
Depth   Matrix   Redox Features     Color (moist)   %   Color (moist)   %   Type   Loc²	
(inches)         Color (moist)         %         Type         Loc²           1 + 8         1 0 4 1 3 - 1         1 0 0	Texture Remarks
148 10 YR5-1 1cc	
	Sand/Sandy I cam
	Sant July 1 care
	,
	·
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand G	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)  Loamy Gleved Matrix (F2)	
	Red Parent Material (TF2)
	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)	<sup>3</sup> 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:	Trydric doi: 1 redent: 1 red 110
IYDROLOGY	
Wetland Hydrology Indicators:	
	C
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)
	Drift Deposits (B3) (Riverine)
PARTICIPATION (A2) ADUATIC INVERTEDIATES (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro	
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro	Crayfish Burrows (C8)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C1) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks)	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C     Shallow Aquitard (D3)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C1) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations:	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C     Shallow Aquitard (D3)
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 Present?  Water Stained Leaves (B9) Depth (inches):	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C     Shallow Aquitard (D3)
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) Water Stained Leaves (B9) Field Observations: Surface Water Present?  We be Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Rd Recent Iron Reduction in Tilled Soils (C) Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches):	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C     Shallow Aquitard (D3)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C1) 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):	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C1) 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):	Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C     Shallow Aquitard (D3)
Water Marks (B1) (Nonriverine)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
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): Wee (includes capillary fringe)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
Water Marks (B1) (Nonriverine)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
Water Marks (B1) (Nonriverine)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
Water Marks (B1) (Nonriverine)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
Water Marks (B1) (Nonriverine)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C1) 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): We (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)  etland Hydrology Present? Yes No

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# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Fr Bragg		City/County: Ft. 13	Svagg Sampling Date: 3/15/202
pplicant/Owner: T. Johnson			State: CA Sampling Point: 3
Investigator(s): S. Horns			inge: NW /4 Sec 18 T-18N RITW
Landform (hillslope, terrace, etc.): Flat			convex, none): Nene Slope (%):
			Long: -123.805447 Datum:
Soil Map Unit Name: Urbain			NWI classification:
Are climatic / hydrologic conditions on the site typical	for this time of year		
Are VegetationN, SoilN, or Hydrology			"Nomal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology			
			eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site r	map showing	sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No. V		
Hydric Soil Present? Yes		Is the Sampleo	
Wetland Hydrology Present? Yes	No_V	within a Wetlan	nd? Yes No/
Remarks:			
VEGETATION			
VEGETATION	Absolute	Descioned Indicates	I B T
Tree Stratum (Use scientific names.)		Dominant Indicator Species? Status	Dominance Test worksheet:  Number of Dominant Species
1			That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant
3			Species Across All Strata: 4 (B)
4			Percent of Dominant Species
Total Sapling/Shrub Stratum	Cover:		That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species 0 x 1 = 0
4			FACW species 0 x 2 = 0
5			FAC species
Total Herb Stratum	Cover:O		FACU species $3 \times 4 = 20$
1. Plantago lanceolata	No	Wes FAC	UPL species $85 \times 5 = 425$
2. Elymus glaucus	45	1/85 UP	Column Totals:
3. arctotheca calendula	20	VES UP	Prevalence Index = B/A = 4, 75
4. Trifolium subternance	im 20	Ves up	Hydrophytic Vegetation Indicators:
5. Anthoxauthum odora	tum 5	NO FACU	N Dominance Test is >50%
6			Prevalence Index is ≤3.01
7			Morphological Adaptations¹ (Provide supporting
8	-		data in Remarks or on a separate sheet)
Total Woody Vine Stratum	Cover:/00		Problematic Hydrophytic Vegetation¹ (Explain)
1			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2.			be present.
	Cover:		Hydrophytic
		ruct	Vegetation
Remarks:	Cover of Biotic C	rust	Present? Yes No
Nemarks.			
j -			

Profile Description: (Describe to the depth no		min are about to a material,
	Redox Features  Color (moist) % Type¹ Loc	Texture Remarks
-18		Sandy wo small stone
Type: C=Concentration, D=Depletion, RM=Red	duced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable to all LRR		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	3 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
Depth (inches):	-	Hydric Soil Present? Yes No
Depth (inches):Remarks:	-	Hydric Soil Present? Yes No
Depth (inches):Remarks: YDROLOGY	eck all that apply)	Hydric Soil Present? Yes No
Depth (inches):Remarks:  YDROLOGY  Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Depth (inches):	Salt Crust (B11)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required)  — Water Marks (B1) (Riverine)  — Sediment Deposits (B2) (Riverine)  — Drift Deposits (B3) (Riverine)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)  — Water Marks (B1) (Riverine)  — Sediment Deposits (B2) (Riverine)  — Drift Deposits (B3) (Riverine)  — Drainage Patterns (B10)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  g Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  (C6)  Saturation Violble on Aerial Imagery (C8)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Aerial Imagery (C8)  Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  (C6)  Saturation Violble on Aerial Imagery (C9)
Depth (inches):  Primary Indicators (minimum of one required; check the state of th	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Depth (inches):  Remarks:  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; cf  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 Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Aerial Imagery (C9)  Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violation Acrial Imagery (C9)  Shallow Aquitard (D3)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Groots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Acrial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin; Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Depth (inches):  Remarks:  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check of the control of the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin; Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violbic on Aerial Imagery (C8)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin; Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violbic on Aerial Imagery (C8)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin; Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violbic on Aerial Imagery (C8)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Depth (inches):	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin; Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Violible on Aerial Imagery (C6)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Ft. Bragg		City/County: F4.	Bragg Sampling Date: 3/15/20
pplicant/Owner: T. Johnson / Best	Developmen	nt Groups	Slate: CA Sampling Point: 4
nvestigator(s): S. Kovns		Section, Township, Ra	nge: NW 1/4 Sec 18 N 12.17W
andform (hillslope, terrace, etc.):			convex, none): None Slope (%):
Subregion (LRR):			Long: -123, 805113 Datum:
Soil Map Unit Name: Urban			NWI classification:
are climatic / hydrologic conditions on the site typica	of for this time of year		
are Vegetation $N$ , Soil $N$ , or Hydrology _ are Vegetation $N$ , Soil $N$ , or Hydrology _	significantly o	disturbed? Are blematic? (If ne	"Normal Circumstances" present? Yes No eeded, explain any answers in Remarks.)  ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No V	Is the Sampled within a Wetlan	d Area
	No	within a wettar	16510
Remarks:			
	Absolute	Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Use scientific names.)  1	% Cover	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species Across All Strata: (B)
	al Cover:		Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B
Sapling/Shrub Stratum			A Section Control of the Control of
1			Prevalence Index worksheet:
2			
3			OBE openies XI
4			FACW species x 2 =
5	tal Cover:		FACU species
Herb Stratum	ai Cover.		UPL species 8/ x5 = 405
1. Holcus lanatus	50	yes up	Column Totals: 91 (A) 445 (B)
2. Panicum Virgatum	30	yes up	
3. Leontodon saxatilis		yes FACU	Prevalence Index = B/A =4, 89
4. Vinca major	1	No up	Hydrophytic Vegetation Indicators:
5			N Dominance Test is >50%
6			Prevalence Index is ≤3.0¹
7			Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8To	tal Cover: 91		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum  1	411		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2			
To % Bare Ground in Herb Stratum	% Cover of Biotic C	- Crust	Hydrophytic Vegetation Present? Yes No
Remarks:	Cotto of blode C		7.55511.7
Tremans.			
11.5			

Depth Matrix	e depth needed to document the indicator or Redox Features	asimin are appeared or interesting.
	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
5-6 10 YR3-1	ICC/	Sand
2		
5-16 104183-1 1	cc	send @ small callles
•		
		2
	n, RM=Reduced Matrix, CS=Covered or Coated to all LRRs, unless otherwise noted.)	Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	1 cm Muck (A9) (LRR C)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Reduced Vertic (F18)  Red Parent Material (TF2)
_ Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
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)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	unless disturbed or problematic.
Restrictive Layer (if present):		unless disturbed of problematic.
Type:		
		Hydric Soil Present? Yes No
Type: Depth (inches): Remarks:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches): Remarks:  YDROLOGY  Wetland Hydrology Indicators:		Hydric Soil Present? Yes No
Type:	equired; check all that apply)	Hydric Soil Present? Yes No
Type: Depth (inches): Remarks:  YDROLOGY  Wetland Hydrology Indicators:	equired; check all that apply) Salt Crust (B11)	
Type: Depth (inches): Remarks:  YDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one re		Secondary Indicators (2 or more required)
Type:	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required)  — Water Marks (B1) (Riverine)  — Sediment Deposits (B2) (Riverine)  — Drift Deposits (B3) (Riverine)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Li	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Dry-Season Water Table (C2)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Li Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 4	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Soils (C6)  Saturation Vielble on Aerial Imagery (C6)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled I	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Solis (C6)  Saturation Violibic on Acrial Imagery (C)  Shallow Aquitard (D3)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled 4	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Soils (C6)  Saturation Vielble on Aerial Imagery (C6)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled tery (B7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Soils (C6)  Saturation Violibic on Acrial Imagery (C6)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled tery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Soils (C6)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled tery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Solie (C6)  Saturation Violbic on Acrial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled tery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Ving Roots (C3)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Solie (C6)  Saturation Violbic on Acrial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled tery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Solils (C6)  Saturation Violible on Acrial Imagery (C  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Itery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Solils (C6)  Saturation Violible on Acrial Imagery (C  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Itery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Solils (C6)  Saturation Violible on Aerial Imagery (C)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No
Type:	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Itery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  ving Roots (C3)  Crayfish Burrows (C8)  Solib (C6)  Saturation Violible on Aerial Imagery (C)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No

