Aquatic Resources Delineation

APNs 107-103-014 & 107-103-015

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1.0 Introduction

This document discloses and discusses the results of a wetland delineation conducted on APNs 107-103-014 and 107-103-015 in Humboldt County, California. The purpose of this delineation was to delineate the boundaries of potential wetland features so that proposed developments may adequately avoid and protect them.

Location

The study area is located along Mattole Road approximately 2.2 road miles west of Honeydew, California. The study area occurs in the SW ¼ of Section 02, T3S, R1W, Humboldt County in the Shubrick Peak, CA 7.5' USGS Quad.

2.0 Definitions

Waters of the United States

Under Section 404 of the Clean Water Act the U.S. Army Corps of Engineers regulate "Waters of the United States" as defined in the Code of Federal Regulations as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark, and herein referred to as non-wetland waters. Non-wetland waters, for example, generally include lakes, rivers, and streams.

Section 404 of the CWA protects wetlands federally. In 1989 George H.W. Bush implemented the national "No-net Loss of Wetlands" policy which either avoids the filling of wetlands or mitigates the destruction and/or degradation of wetlands. U.S. Army Corps of Engineers defines wetlands as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Waters of the State

Although very similar, the term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The State Water Resources Control Board (SWRCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. SWRCB jurisdiction includes wetlands and waters that may not be regulated by the Corps under Section 404.

The SWRCB defines wetlands as "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."

3.0 Methods

Sample points within the study area were delineated using standard methods defined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region Version 2.0* (U.S. Army Corps of Engineers 2010) and the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

In office reconnaissance began in late February, 2020. Field work and delineation data collection was conducted on March 05, 2020. Five sample points were assessed for the three wetland parameters: hydrology, hydrophytic vegetation, and hydric soils. Sample Points (SP) #1 and #2 assessed a juncus community suspected of being a wetland along a historic ford crossing on an unnamed ephemeral drainage. SP #3 and #4 assessed a similar site approximately 270' downstream of SP #1 and #2. SP #5 assessed one additional site where juncus and nonnative grasses were intermixed. If wetland parameters are met, hydrophytic vegetative community is used to delineate the boundary between the wetland and upland habitat.

4.0 Results and Discussion

Topography

The property containing the study area is located on a riparian terrace along the Mattole River, approximately 400' above sea level. Slopes at the sampling points are relatively flat, not exceeding 2%. Surface water at this site drains NE to the Mattole River.

Vegetation

The study area occurs at the intergrade of annual grassland and Douglas-fir forest. Douglas-fir (*pseudotsuga menziesii*), California black oak (*quercus kelloggii*), California buck-eye (*aesculus californica*), and California bay laurel (*umbellularia californica*) are the dominant tree species on the property. Forest openings and grasslands are dominated by nonnative grass species, both annual and perennial, and shrub species. Silver hairgrass (*aira caryophylla*), orchard grass (*dactylis glomerata*), Yorkshire fog (*holcus lanatus*), and blue wildrye (*elymus glaucus*) are the most prominent grass species on property. Spreading rush (*juncus patens*), soft rush (*juncus effusus*), pennyroyal (*menthe pulegium*), dwarf rose (*rosa gymnocarpa*), coyote brush (*baccharis pillularis*), Douglas iris (*iris douglasiana*), vetch (*vicia spp.*), and Italian thistle (*carduus pycnocephalus*) were also observed as individuals or in small populations. Sample points consisted of small herbaceous plant communities surrounded by upland shrub communities and woodland. Spreading rush, soft rush, and pennyroyal were the only species observed with FACW or OBL status. Sample points were placed in areas that appeared to have dominant wetland vegetation.

Soils

The project parcel contains multiple soil types. These are the soil types that sampling occurred in. (U.S. Department of Agriculture, Natural Resources Conservation, 2016):

- 144 – Garberville-Parkland complex, 0 to 2 percent slopes. This soil type is sourced from alluvium derived from mixed sedimentary rock. Typical soil profiles consist of loams intermixed with silt and clay. The natural drainage class for this soil type is well to moderately well drained.
- 159 – Grannycreek-Parkland complex, 2 to 5 percent slopes. This soil type's parent material consists of alluvium from sedimentary rock. Typical soil profiles often consist of a strong loam component with varying degrees of silt and clay. The natural drainage class varies from poorly drained to moderately well drained.

SP #1 and #2 occurred in Grannycreek-Parkland complex while SP #3-#5 occurred within Garberville-Parkland complex. Soils at the sample points generally displayed dark colors with some areas of dark brown shading. Silt clay loam was the dominant soil texture encountered at many sample points. Iron concentrations were the most prominent redox features observed, with some nonhydric soils containing small amounts.

Hydrology

Surface hydrology at the site is sourced from direct and indirect rainfall. No water table was observed in any sample points. Direct precipitation, intermittent, and ephemeral watercourses are the sources of surface water. Given the relatively flat topography, the majority of surface water either infiltrates the ground or runs off into watercourse channels where it flows off the property. Climactic/hydrologic conditions were atypical for this time of year. The months of February and March were unseasonably dry, see AgCIS Rain Accumulation graph.

Wetlands

SP #1 & #2

SP #1 and #2 delineated a suspected wetland in a dispersed community of soft rush located along an ephemeral watercourse. The location is a historic dirt ford crossing that is no longer in use. Historic stream crossing of this location may have resulted in unnatural soil compaction; however the crossing appears to have not been used in the last 10 years. SP #1 occurred within the active channel of the watercourse. This SP identified all three parameters indicative of a wetland. SP #2 occurred in grassland habitat outside of the ephemeral channel. SP #2 identified upland vegetation with soils that displayed very low (1%) densities of iron concentrations and only one secondary hydrology indicator. SP #2 delineated the boundary between wetland and moist soil meadow. Nonnative, facultative grasses were present at all sample points. Dominance of soft rush was used to delineate the boundary between wetland and upland habitats.

SP #1 tested positive for hydrophytic vegetation. Soft rush (FACW) was the only dominant species at SP #1. Silver harigrass (FACU), Yorkshire fog (FAC) and pennyroyal (OBL) were present in small proportions. Tree and shrub strata were excluded from the SP because although species were present within the recommended plot sizes, they were part of a separate plant community. SP #1 passed the Dominance Test for hydrophytic vegetation. SP #2 was dominated by two nonnative grass species, silver hairgrass (FACU) and Yorkshire fog (FAC). SP #2 did not test postivie for any of the hydrophytic vegetation indicators.

Hydric soils were identified at SP#1 but not SP #2. SP #1 displays brown soil colors (7.5YR4/4) with a strong amount of redox depletions (10YR4/1) intermixed with a small amount of redox concentrations (7.5YR6/8). Redox concentrations and depletions become less abundant with depth but still meet minimum densities and layer widths defined in Depleted Matrix (F3). SP #2 also contained dark soils (5YR4/1) that border on Depleted Matrix (F3) but iron concentrations were extremely rare only occurring across 1% of the soil horizon. This density when associated with the soil colors is not enough to meet

either Depleted Matrix (F3) or Redox Dark Surface (F6). The soil profile at SP #2 did not meet the definition of any other hydric soil indicator.

Wetland hydrology was identified at SP #1 but not SP #2. SP #1 did not display any primary wetland hydrology indicators, but this may be influenced by the below average rainfall this winter. Two secondary indicators were documented at SP #1, meeting wetland hydrology. The two indicators consist of Geomorphic Position (D2) and Drainage Patterns (B10). Geomorphic position is met by the flat riparian terrace that is suitable for inundation. Drainage Pattern is concluded from the ephemeral watercourse channel SP #1 occurred within. SP #2 is located on the same riparian terrace but outside of the ephemeral watercourse. No primary indicators were observed and only one secondary indicator was documented at SP #2, Geomorphic Position (D2). SP #2 does not display wetland hydrology.

SP #3 & #4

SP #3 and #4 assessed a second historic dirt ford crossing on an unnamed ephemeral watercourse approximately 270' downstream of SP #1. SP #3 did test positive for wetland hydrology and hydric soils but failed to display dominant wetland vegetation. Neither of these points met the three parameters that define a wetland.

SP #3 sampled areas of the ephemeral channel that displayed potential hydrophytic vegetation. Hydrophytic species observed at the site include spreading rush (FACW) and pennyroyal (OBL). Spreading rush (FACW) was found to be codominant with silver hairgrass (FACU). This resulted in the site failing the Dominance Test. Prevalence index was utilized as a secondary test because other parameters were met at the site, but the site also failed. SP #4 tested vegetation in close proximity (20') to SP #3. This area consisted of upland species characteristics of an open canopy forest floor. Douglas-fir, California black oak, coyote brush, and common manzanita (*arctostaphylos manzanita*) were present within minimum recommended plot sizes. The herb stratum contained Yorkshire fog, blue wildrye, pink honey suckle, and English plantain (*plantago lanceolate*). Yorkshire fog (FAC) and blue wildrye (FACU) were the dominant species. SP #3 and SP #4 do not display dominant hydrophytic vegetation.

SP #3 sampled soils in the center of the ephemeral channel. The soil displays dark brown colors (10YR3/3 and 3/2) with redoximorphic features showing up at a depth of 4 inches down. These features included both redox depletions (5Y4/1) and redox concentrations (7.5YR5/8). Depletion percentages were too low to meet Depleted Matrix (F3) but concentrations were present at densities that meet Redox Dark Surfaces (F6). SP #4 did not display hydric soils, but did contain a very small amount (0.5 %) of iron concentrations. This is likely associated with heavy annual rainfall that overlaps with the growing season.

SP #3 did not display any primary indicators for wetland hydrology but did meet two secondary indicators, thus meeting wetland hydrology. Because SP #3 occurred within the channel of an ephemeral watercourse on a flat riparian terrace, the SP met both Drainage Patterns (B10) and Geomorphic Position (D2) secondary indicators. Although SP #4 met Geomorphic Position (D2) due to the topography of the site, it does not occur within any observable drainage pattern. SP #4 did not meet any other secondary indicators of wetland hydrology, including the FAC Neutral Test. Wetland hydrology was met at SP #3 but not SP #4.

SP #5

SP #5 was conducted in a spot check manner at a location that displayed dispersed community of nonnative grasses and rushes. This area is also directly adjacent to a retaining wall that has drainage pipes in place to allow subsurface water to percolate, potentially indicating evidence of emergent groundwater. However, the site failed to meet hydrophytic vegetation and wetland hydrology.

SP #5 displayed a mixture of nonnative grasses, native shrubs, and native herbaceous plants. Silver hairgrass, spreading rush, pennyroyal, and coyote brush were documented at the SP. Silver hairgrass (FACU) and spreading rush (FACW) are the two dominant species at this site. The site failed to exceed 50% dominance of hydrophytic vegetation.

SP #5 did test positive for hydric soils. These characteristics are potentially the result of an interaction between the soils and emergent ground water or shallow subsurface water movement. However, this interaction is either not shallow enough or does not persist long enough to influence vegetation dominance. The soil matrix displays a mosaic of black (5YR2.5/1) and dark brown (7.5YR3/2) colors. Iron concentrations (7.5YR5/8) began displaying in the matrix at a depth of 4". The soil profile meets the definition of Redox Dark Surface (F6).

SP #5 did not display wetland hydrology. No primary indicators were met at this SP. Only one secondary indicator, Geomorphic Position (D2), was met due to the SPs location on a flat riparian terrace where water is more likely to pond. No other secondary indicators of wetland hydrology were observed at this SP, including the FAC Neutral Test.

List of Appendices

1) General Location Map
2) DOQ Wetland Map
3) AgACIS Rainfall Accumulation Graph
4) NRCS Web Soil Survey Map
5) National Wetland Inventory Map
6) Wetland Delineation Data Sheets (Western Mountain, Valleys, and Coast Region)

References

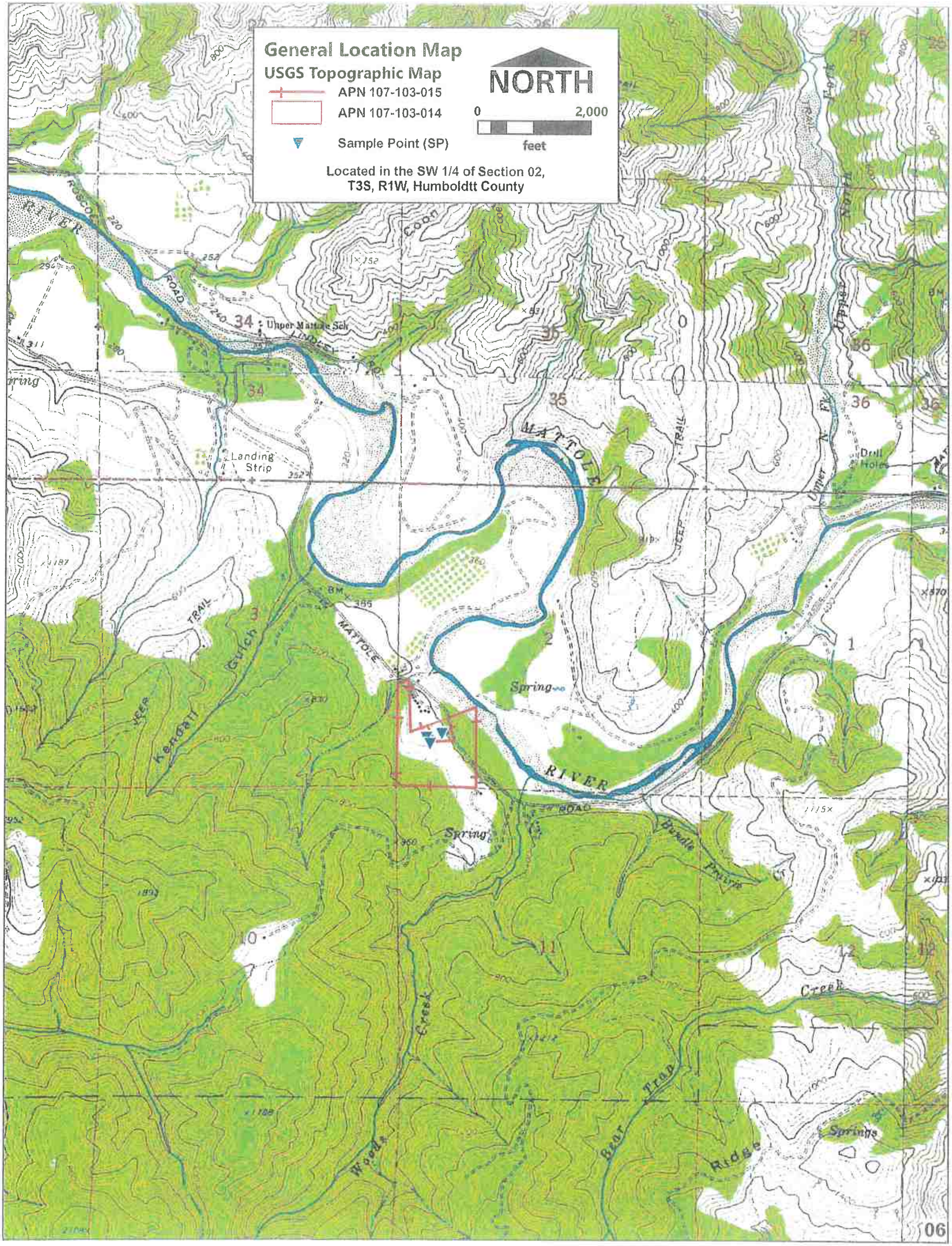
Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station.

State Water Resource Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Sacramento, CA.

U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), eds. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

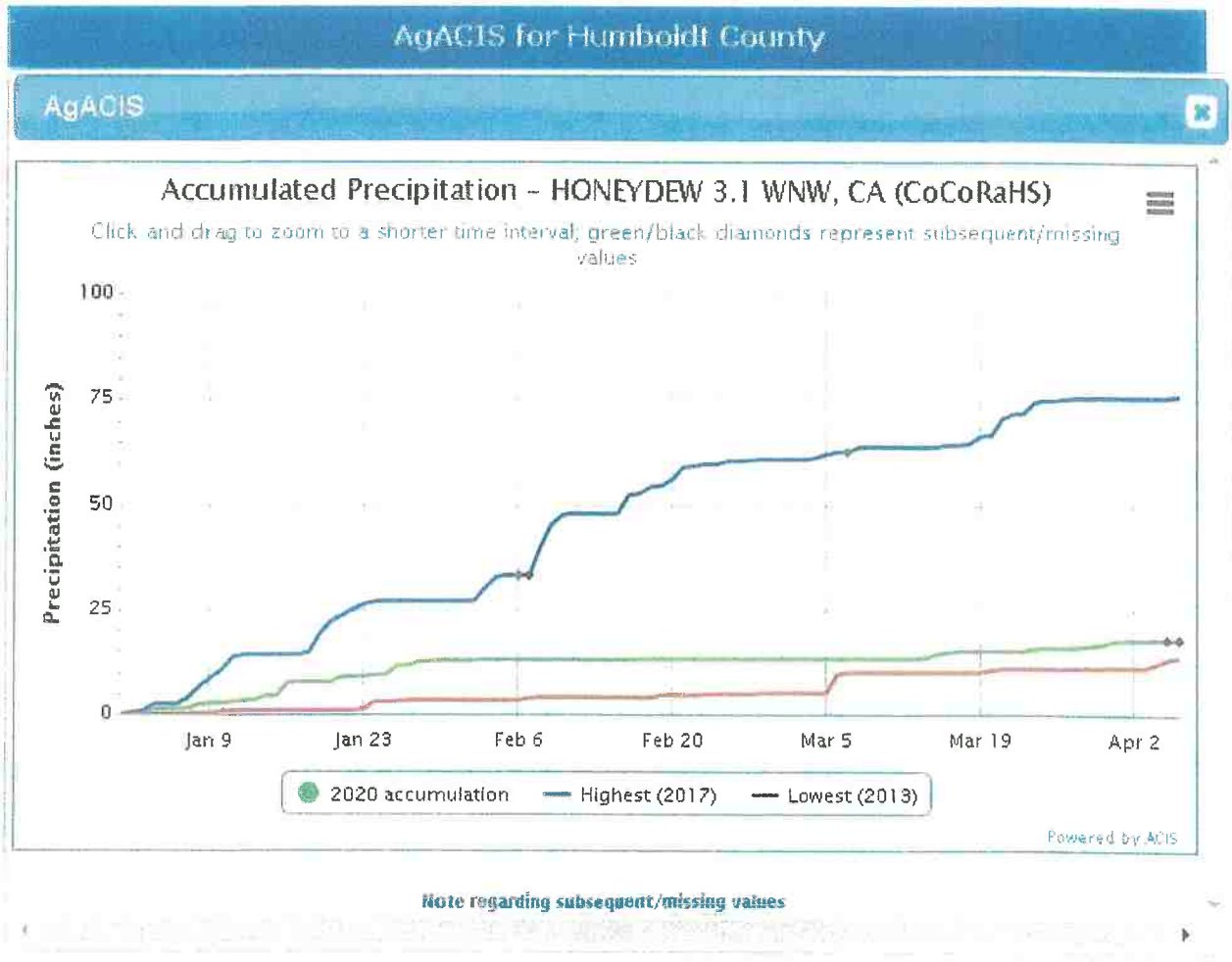
U.S. Army Corps of Engineers. 2016. Western Mountains, Valleys, and Coast Region 2016 Regional Plant List. http://wetland_plants.usace.army.mil/

U.S. Department of Agriculture, Natural Resources Conservation Service. 2016. Web Soil Survey http: //websoilsurvey.sc.egov.usda


General Location Map
USGS Topographic Map
APN 107-103-015
APN 107-103-014
Sample Point (SP)
NORTH
0
2,000
feet
Located in the SW 1/4 of Section 02,
T3S, R1W, Humboldtt County
Upper Mattole Sch
LINDLEY RD.
ROSCOE ROAD
RIVER
MATTOLE
Landing Strip
Kendall Gulch
TRAIL
JEEP TRAIL
Coon
Spring
Drill Holes
Upper N. Fk.
Upper North Fork
Burdle Prairie Cr
Creek
Woods Creek
Bear Trap Ridge
Springs
ROAD


DOQ Wetland Map
2018 NAIP DOQ
APN 107-103-014
APN 107-103-015
Mattole Road
Permanent Road
Seasonal Road
ATV/Walking Trail
Sample Point
Seasonal Wetland Boundary
50' Seasonal Wetland SMA
100' SWRCB Wetland Buffer
Intermittent Watercourse
Ephemeral Watercourse
NORTH
0
75
feet
Located in the SW 1/4 of Section 02,
T3S, R1W, Humboldtt County
07

Appendix 3 – Rainfall Data



Sourced: Applied Climate Information Center (ACIS) – NOAA Regional Climate Center. http://www.rcc-acis.org/
Date Sourced: 03/06/2020

Hydrologic Soil Group—Humboldt County, South Part, California
(Valkov Delineation)

Map Scale: 1:3,310 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Humboldt County, South Part, California
Survey Area Data: Version 8, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Nov 6, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
100	Water and Fluvents, 0 to 2 percent slopes		0.9	2.2%
134	Fluvents, 0 to 2 percent slopes, occasionally flooded	A	2.7	7.0%
144	Garberville-Parkland complex, 0 to 2 percent slopes	C	6.6	16.9%
151	Parkland-Garberville complex, 2 to 9 percent slopes	C	3.9	10.0%
159	Grannycreek-Parkland complex, 2 to 5 percent slopes	C/D	3.3	8.5%
567	Crazycoyote-Sproulish-Caperidge complex, 15 to 50 percent slopes	B	0.0	0.1%
5505	Crazycoyote-Sproulish-Canoecreek complex, 30 to 50 percent slopes	B	21.6	55.3%
Totals for Area of Interest			**39.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

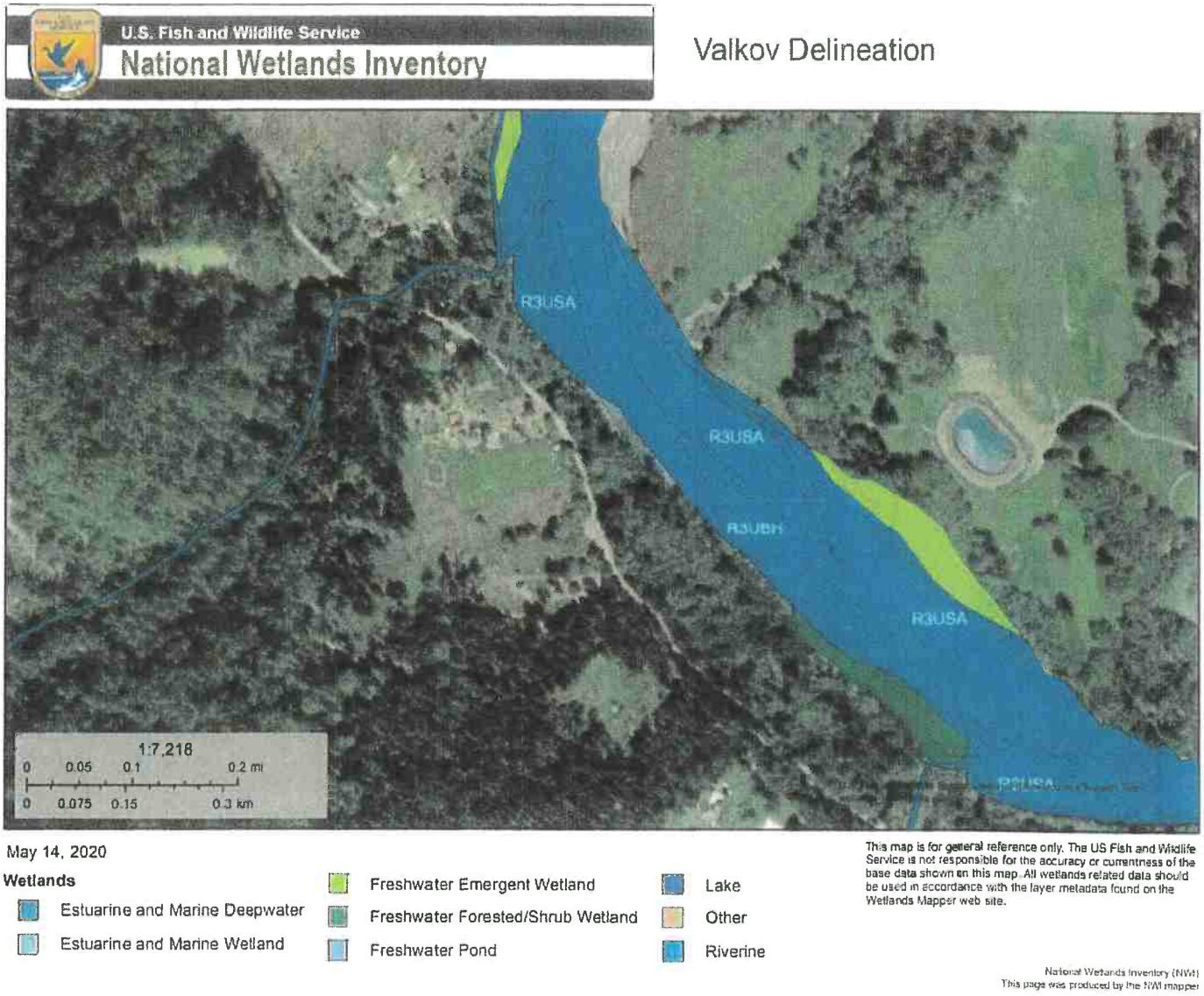
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix 5 – National Wetland Inventory



Data Sourced: National Wetland Inventory Wetlands Mapper. https://www.fws.gov/wetlands/data/mapper.html

Appendix 6 – Wetland Delineation Data Sheets
(Western Mountains, Valleys, and Coast Region)

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: , Valkov City/County: Humboldt Sampling Date: 3/05/2020
Applicant/Owner: Valentin Valkov State: CA Sampling Point: SP1
Investigator(s): Jacob Henry Section, Township, Range: SW¼ 02, T3S, R1W HB&M
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2
Subregion (LRR): NW Forests and Coast Lat: 40.232807 Long: -123.156123 Datum: NAD83
Soil Map Unit Name: 159 - Grannycreek - Parkland 2-5% slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Been a dry winter, see AgACIS graph. SP occured in historic dirt ford crossing on an ephemeral drainage. Feature is semi linear

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: r = 15')			
1. Rubus armeniacus	10	D	FAC
2. Baccharis pilularis	3	D	UPL
3. Rosa gymnocarpa	1	–	FACU
4.			
5.			
	14 = Total Cover		
Herb Stratum (Plot size: r = 5')			
1. Juncus effusus	60	D	FACW
2. dira caryophylla	20	–	UPL
3. holcus lanatus	20	–	FAC
4. mentha pulegium	2	–	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	102 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Upland shrubs present within minimum recommended plot size but outside of sampled veg community. Excluded from assessment

SOIL

Sampling Point: SP1

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 4/4	30	10YR 4/1	65	RM	M		Top horizon meets F3
			7.5YR 6/8	5	C	M+PL		
6-9	10YR 2/1	98	10YR 4/1	1	D	M		
			7.5YR 6/8	1	C	M+PL		
9-16	10YR 6/1	95	10YR 5/6	5	DM+C	M		Depleted Matrix w/ concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (Inches): N/A

Hydric Soil Present? Yes X No ___

Remarks: Soils of an ephemeral drainage

HYDROLOGY

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (Inches): ___

Water Table Present? Yes ___ No X Depth (Inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (Inches): 7"

Wetland Hydrology Present? Yes X No ___

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

Remarks: Dry winter maybe influencing water table. Two secondary indicators met.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Valkov Delineation City/County: HUM Sampling Date: 3/25/20

Applicant/Owner: Valentin Valkov State: CA Sampling Point: SP2

Investigator(s): S. Henry Section, Township, Range: SW¼ 02, T3S, R1W, HB&M

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2

Subregion (LRR): A – NW Forests & Coasts Lat: 40.23285 Long: -124.15613 Datum: NAD83

Soil Map Unit Name: 159 NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes ____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: r = 30')			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: r = 5')			
1. Aira caryophyllea	80	D	FACU
2. Holcus lanatus	30	D	FAC
3. Vicia spp	5	—	—
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	115 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 2

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	Organic							
1-14"	5YR 4/1	99	7.5YR 5/8	1	C	M		Sub angular Iron concentrations are rare.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ No X

Remarks: Very dark soils with rare occurrence of iron concentrations. Site is likely saturated over winter ~~variable~~ ~~depending~~ depending on annual rainfall and timing.

HYDROLOGY

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks: Geomorphic position because of flat slope on riparian terrace. FAC Neutral = Fail

0:1

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Valley Delineation City/County: HUM Sampling Date: 3/05/20

Applicant/Owner: Valentine Valley State: CA Sampling Point: SP3

Investigator(s): J. Henry Section, Township, Range: SW¼ 02, T3S, R1W, HB&M

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): A - NW Forests & Coasts Lat: Long: Datum: NAD83

Soil Map Unit Name: 159 NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland? Yes ____ No X
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Below avg rainfall for winter, see AgACIS graph. Sampling occured along ephemeral drainage downstream of SP1.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Pseudotsuga menziesii			
2. Quercus kelloggii			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: r=15')			
1. Baccharis pilularis			
2. Toxicodendron diversilobum			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: r=5')			
1. Aira caryophyllea	40	D	FACU
2. Juncus patens	35	D	FACW
3. Mentha pulegium	5	–	OBL
4. Iris douglasiana	5	–	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	85 (A)		260 (B)

Prevalence Index = B/A = 3.058

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: Tree and shrubs were present within recommended minimum plot sizes but part of seperate plant communities. Prevelance index seems to apply drainage is too ephemeral to support DOW wetland veg.

SOIL

Sampling Point: SP3

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100						
4-13	10YR 3/3	30	5Y 4/1	40	D	M		Distinct Faint
			7.5YR 5/6	30	C	M+PL		Distinct

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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 X No ___

Remarks: Hydrology is sourced from ephemeral storm run-off.

HYDROLOGY

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (Inches): _____

Water Table Present? Yes ___ No ___ Depth (Inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (Inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks: SP occured in channel of ephemeral drainage (B10) on flat riparian terrace (D2). FAC-Neutral = Fail

1:1

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Valkov Delin City/County: HUM Sampling Date: 03/05/20

Applicant/Owner: Valentin Valkov State: CA Sampling Point: SP4

Investigator(s): J. Henry Section, Township, Range: SW/4 02, T3S, R1W, HB&M

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2

Subregion (LRR): A - NW Forests & Coasts Lat: 40.23300 Long: -124.15517 Datum: NAD83

Soil Map Unit Name: 159 NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Below avg rainfall for Winter

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Pseudotsuga menziesii	30	D	FACU
2. Quercus kelloggii	10	D	UPL
3.			
4.			
	40 = Total Cover		
Sapling/Shrub Stratum (Plot size: r = 15')			
1. Berberis pillularis	2	D	UPL
2. Arctostaphylos manzanita	2	D	FAC
3.			
4.			
5.			
	4 = Total Cover		
Herb Stratum (Plot size: r = 5')			
1. Holcus lanatus	60	D	FAC
2. Elymus glaucus	30	D	FACU
3. Koniaea hispidula	5	—	FACU
4. Plantago lanceolata	2	—	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	7.5YR 3/1	99.5%	7.5YR 7/8	0.5	C	M		
16+	7.5YR 3/1	100%						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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 X

Remarks: Very little redox features, likely associated with soil saturation related to heavy annual rainfall.

HYDROLOGY

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks: FAC Neutral = Fail

0:5

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Valkov Delin City/County: HUM Sampling Date: 03/05/20
Applicant/Owner: Valentin Vasilev State: CA Sampling Point: SP5
Investigator(s): J. Henry Section, Township, Range: SW¼ 02, T3S, R1W, HB&M
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2
Subregion (LRR): A - NW Forests & Coasts Lat: 40.23251 Long: -124.15585 Datum: NAD83
Soil Map Unit Name: 159 NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Rainfall below avg.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: r = 15')			
1.			
2.			
3.			
4.			
6.			
	= Total Cover		
Herb Stratum (Plot size: r = 5')			
1. Aira caryophylla	80	D	FACU
2. Juncus patens	20	D	FACW
3. Mentha pulegium	5	–	OBL
4. Boeckharis pillularis	1	–	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	106 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	1	x 5 =	5
Column Totals:	106 (A)		370 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:
No 1 - Rapid Test for Hydrophytic Vegetation
No 2 - Dominance Test is >50%
No 3 - Prevalence Index is ≤3.0[1]
4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
5 - Wetland Non-Vascular Plants[1]
Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP5

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	5YR 2.5/1	100				M		No Redox
4-16	5YR 2.5/1	70	7.5YR 3/2	25	—	M		Mixed browns
			7.5YR 5/8	5	C	M		Iron Con.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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 X No ___

Remarks: Hydrology consist of rainfall and some portion of subsurface flow. SP is located below retaining wall with drainage pipes. Redox features likely a result of spring time soil saturation.

HYDROLOGY

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks: FAC = Fail

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