Wetland and Other Waters Delineation Report

Assessor's Parcel Numbers 015-111-006, 008, 012, and 013 Eureka, California

> Prepared for: Jim Paye

December 2021 021184

Phone: (707) 822-5785 Email: info@shn-engr.com Web: shn-engr.com • 1062 G Street, Ste. I, Arcata, CA 95521-5800

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1062 G St., Suite l Arcata, CA 95521 707-822-5785

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Abbreviations and Acronyms

Terms of Measurement

in/hr	inches per hour
mmhos/cm	millimhos per centimeter

Additional Terms

APN	Assessor's Parcel Number
CFR	Code of Federal Regulations
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
FAC	facultative wetland plant species
FACU	facultative-upland plant species
FACW	facultative-wetland plant species
GPS	Global Positioning System
Ksat	most limiting layer to transmit water
MS	Master of Science
NOAA	National Oceanic and Atmospheric Administration
NGTOC	National Geospatial Technical Operations Center
NL	not listed wetland plant status
NR	no reference
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	obligate wetland plant species
OHWM	ordinary high water mark
redox	redoximorphic
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
TP	test pit
UPL	upland plant species
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
WDRs	Waste Discharge Requirements
WETS	Climate Analysis for Wetlands Tables
WoS	Waters of the State
WoUS	Waters of the United States



1.0 Introduction

SHN has prepared this Wetland and Other Waters Delineation Report on Assessor's Parcel Numbers (APNs) 015-111-006, 008, 012, and 013 in Eureka, California (Figure 1). Fieldwork was performed by an SHN soil scientist, with a Master of Science (MS) degree in Soil Science, and an SHN wetland ecologist, with an MS degree in Biology, with 18 years of combined wetland and other waters delineation experience.

1.1 Purpose

The purpose of this report is to identify the presence or absence of potential wetlands and other waters of the State (WoS) or United States (WoUS) within the study area (Figure 2), as defined by the United States Army Corps of Engineers (USACE) three-parameter and Ordinary High Water Mark (OHWM) methodologies. The delineation of these features will help determine setbacks and will aid in the design, planning, and permitting for any project that may occur within the study area. The delineation will also help minimize impacts to potential wetland resources.

1.2 Study Area

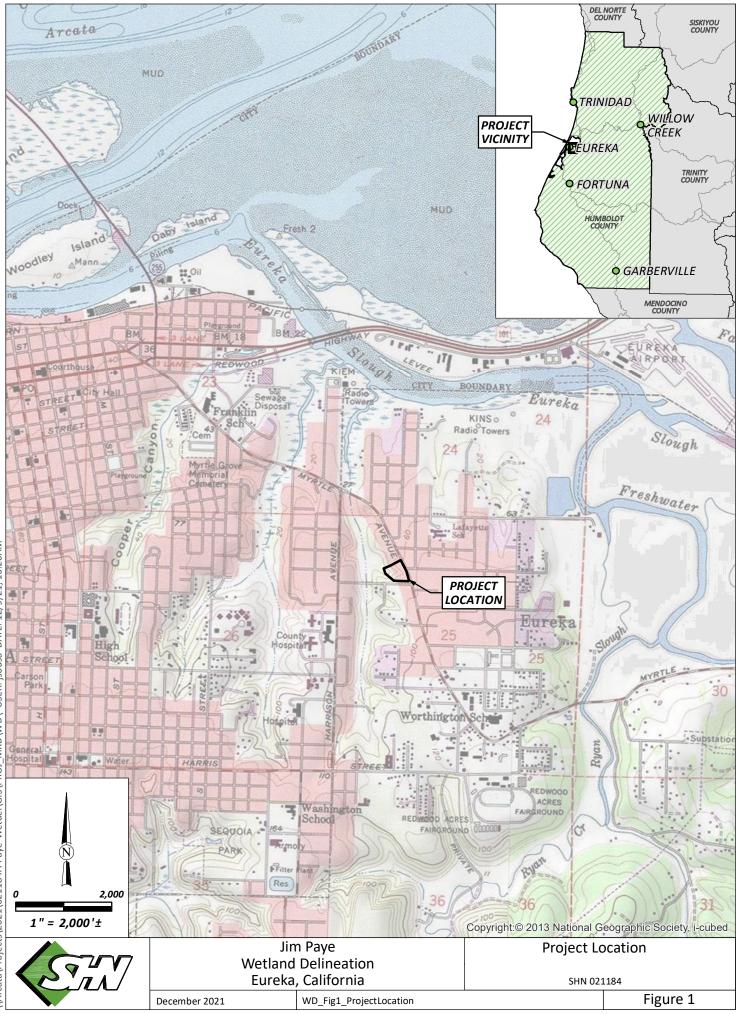
The proposed project is situated approximately 1.5 miles southeast from downtown Eureka in Humboldt County, California (Figure 1). The site is within the U.S. Geological Survey (USGS) Eureka 7.5-minute quadrangle, N.E. ¼ of the N.W. ¼, Section 25, Township 5 North, Range 1 West, Humboldt Baseline and Meridian at latitude 40.791799° and longitude -124.134966° (Google Earth, 2021).

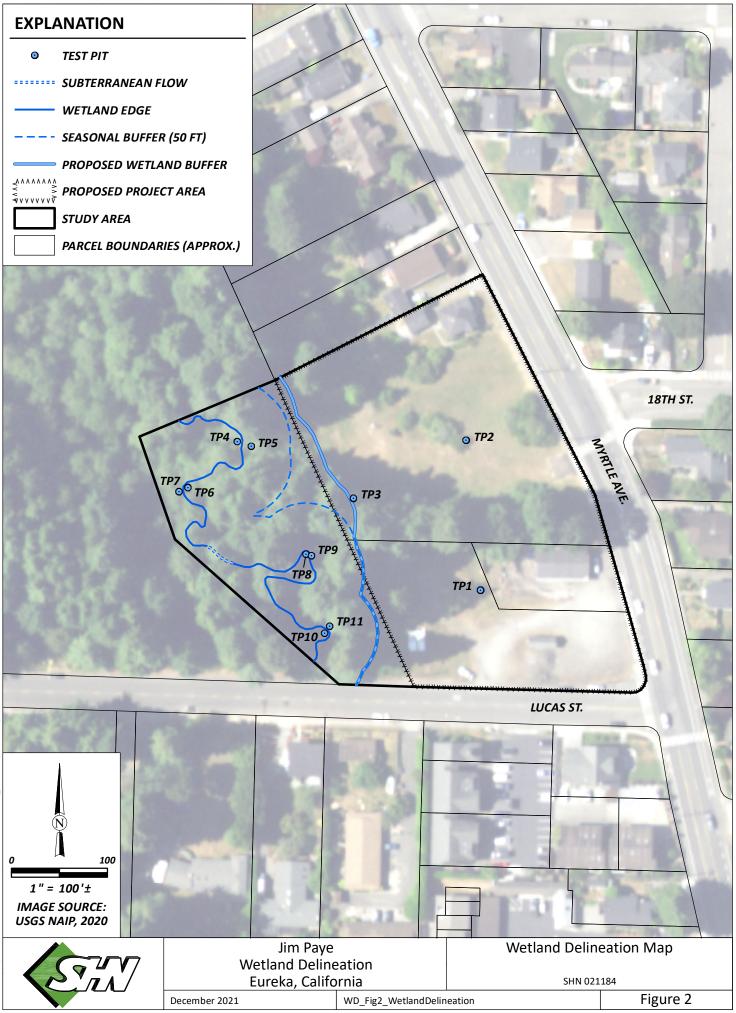
The study area exists within three parcels owned by Jim and Judy Paye (Assessor's Parcel Numbers [APN] 015-111-006, 012, and 013) as well as a portion of a county-owned parcel (APN 015-111-008) for a total study area of approximately 3.3 acres (Figure 2). The study area focuses on the eastern wetland boundary within the county-owned parcel (APN 015-111-008) as well as the entire area of the three parcels owned by Jim and Judy Paye, which would be the location of any proposed project hereon referred to as "proposed project area". All three parcels have existing single-family units and outbuildings (Figure 2; Appendix 1, Photos 1 and 2), while the county-owned parcel is vacant and dominated by primarily native vegetation. Currently, the proposed project area is dominated by non-native lawns and compacted driveways surrounding the single-family units and outbuildings, with woodland to the west. Dominant species within the woodland consist of coast redwood (*Sequoia sempervirens*), red alder (*Alnus rubra*), sword fern (*Polystichum munitum*), skunk cabbage (*Lysichiton americanus*), English ivy (Hedera helix), lady fern (*Athyrium filix-femina* var. *cyclosorum*) and pig-a-back plant (*Tolmeia menziesii*), among other species (Appendix 1, Photo 3).

2.0 Project Description

This wetland delineation was conducted to locate wetlands and determine wetland boundaries to establish appropriate buffers and setbacks. Results of this study will be used to properly design any proposed project to minimize impacts to wetlands occurring within the project area or the immediate vicinity.







3.0 Environmental Setting

3.1 Site Uses

Two of the three parcels are currently developed for rural residential use. APN 015-111-006 contains a single-family residence with detached garage and is surrounded by non-native lawns and orchard, with other landscaping. This residence would remain; however, the orchard and lawns would be developed in any proposed project. APN 015-111-012 contains a residential structure as well as several outbuildings. The parcel is primarily gravel with little to no vegetative cover. The third parcel, APN 015-111-013, contains a rental management office and is also primarily compacted gravel with little to no vegetative cover. Historically, the proposed project area appears to have the same residential components as seen today, with structures in about the same configuration since around 1990 (Google Earth, 2021). APN 015-111-008 is undeveloped and is not part of this project, but is included within the study area on account of the extensive wetlands that occur there.

3.2 Site Hydrology

The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) Climate Analysis for Wetlands Table (WETS) method was used to review rainfall conditions for the previous three months prior to the test pit (TP) investigations (or the same month and two months prior if after the 15th (Table 1; USDA-NRCS, 2021a). The TP investigation occurred on November 11, 2021. The current 2021 rainfall data for October, September, and August (National Oceanic and Atmospheric Administration [NOAA], 2021) were compared to the 30-year rainfall average at the Woodley Island Weather Forecast Office in Eureka, California (1981-2010 data) for the same months. If the current rainfall of each month is between 30% and 70% of the 1981-2010 precipitation average, it is "normal" rainfall; if above 70%, it is ranked "wetter than normal" rainfall; if below 30%, it is ranked "drier than normal" rainfall. The WETS data indicates that the 2021 fall season, just prior to the delineation, is a "wetter than normal" rainfall for the study area.

Month	WETS Condition	<30%	> 70%	Rainfall (in.)	Condition Value	Weight	Product Value
June 15, 2021 Test Pit Excavation							
October 2021	Above Normal	1.1	2.73	4.02	3	3	9
September 2021	Above Normal	0.18	0.67	1.24	3	2	6
August 2021	Below Normal	0.05	0.25	0.03	1	1	1
Total Above Normal ^a				16			

Table 1.WETS Rainfall Data, November 2021, Hydrological AnalysisEureka, Humboldt County, California

^a A sum of 6-9 prior to site investigation is considered a drier than normal rainfall.

10-14 prior to site investigation is considered a normal rainfall.

15-18 prior to site investigation is considered a wetter than normal rainfall. Sources: USDA-NRCS, 2021a; NOAA, 2021



3.3 National Wetlands Inventory

The United States Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI; USFWS, 2021) website maps the study area as upland. The adjacent riparian forest to the west and north is mapped as Palustrine (P), Forested (FO), Broad-leaved Deciduous (1), Temporarily Flooded (A) wetland (Appendix 2, NWI). This general categorization by the NWI is not intended for planning purposes because of the lack of ground-truthing. In the "Data Limitations, Exclusions and Precautions" disclaimer, it states that:

"The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high-altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis." (USFWS, 2021)

The intent of this study is to verify NWI mapping using site-specific soil, hydrology, and vegetation analysis.

4.0 Vegetation

The wetland indicator status of plant species for this investigation was based on the *Western Mountains, Valleys, and Coast 2020 Regional Wetland Plant List* (USACE, 2020). Synonyms were checked for species that did not appear on the USACE wetland plant list. Plant species were classified as:

- Obligate (OBL)-almost always occurs in wetlands
- Facultative-wetland (FACW)-usually occurs in wetlands, but may occur in non-wetlands
- Facultative (FAC)–occurs in wetlands and non-wetlands
- Facultative-upland (FACU)-usually occurs in non-wetlands, but may occur in wetlands
- Upland (UPL)–almost never occurs in wetlands
- Not listed (NL)–scored as an upland plant and calculated as such on wetland determination forms

During the November 2021 wetland investigation, botanical species were recorded within the vicinity of the TP onto corresponding wetland determination data forms. The study area is on a sedimentary terrace with an eroded gulch immediately west of the proposed project property boundaries. Multiple seepages from the surrounding hillslopes drain into the gulch and associated ravines supporting wetlands and streams. The proposed project area is on a flat upland terrace dominated primarily by non-native herbaceous vegetation: creeping bent grass (*Agrostis stolonifera*), orchard grass (*Dactylis glomerata*), and ryegrass (*Festuca perennis*). Species found within the gulch and associated ravines include coast redwood and red alder, with an understory of English ivy, sword fern, deer fern (*Struthiopteris spicant*), and skunk cabbage, among others. More species can be found listed on the wetland determination data forms in Appendix 3.



5.0 Geologic and Soil Composition

The geology at the site is mapped as marine and nonmarine (continental) sedimentary rocks (geologic map unit Qoa) of Pleistocene age (California Department of Conservation, 2010). The parcels are situated on a sedimentary terrace, with a slope break on the western boundary, where a northwest-southeast gulch has been eroded. Seepages draining from the upper terrace bank down to the gulch have created several cut slopes perpendicular to the gulch.

The underlying soils in the study area have the USDA-NRCS soil map unit designation 230—Hookton-Tablebluff complex, 2 to 9 percent slopes and 257-Lepoil-Candymountain complex, 2 to 15 percent slopes, as described below (Appendix 2, Soil Map). The site-specific soil description at each exploratory soil TP is included in the wetland determination data forms found in Appendix 3, with photos in Appendix 1.

Humboldt County, Central Part, California

230—Hookton-Tablebluff complex, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: 2ljdr Elevation: 30 to 820 feet Mean annual precipitation: 41 to 53 inches Mean annual air temperature: 52 to 55 degrees F Frost-free period: 270 to 330 days Farmland classification: Farmland of statewide importance **Map Unit Composition** Hookton and similar soils:45 percent Tablebluff and similar soils:40 percent Minor components:15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hookton

Setting

Landform:Erosion remnants Landform position (two-dimensional):Summit Landform position (three-dimensional):Tread Down-slope shape:Linear Across-slope shape:Linear Parent material:Mixed alluvium **Typical profile**

A1 - 0 to 4 inches: loam A2 - 4 to 15 inches: loam Bt - 15 to 27 inches: clay loam Bw1 - 27 to 39 inches: clay loam Bw2 - 39 to 60 inches: clay loam

Properties and qualities

Slope:2 to 9 percent Depth to restrictive feature:More than 80 inches Drainage class:Somewhat poorly drained



Capacity of the most limiting layer to transmit water (Ksat):Moderately high (0.20 to 0.60 in/hr) Depth to water table:About 10 to 20 inches Frequency of flooding:None Frequency of ponding:None Maximum salinity:Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water supply, 0 to 60 inches: High (about 10.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C/D Ecological site: R004BA203CA - Riparian Hydric soil rating: No

Description of Tablebluff Setting

Landform:Erosion remnants Landform position (two-dimensional):Summit Landform position (three-dimensional):Side slope Down-slope shape:Linear Across-slope shape:Linear Parent material:Eolian deposits over mixed alluvium **Typical profile**

Typical profile Ap1 - 0 to 6 inches: silty clay loam Ap2 - 6 to 11 inches: silty clay loam AB - 11 to 16 inches: silt loam Bt1 - 16 to 20 inches: silty clay loam Bt2 - 20 to 29 inches: silty clay loam Bt3 - 29 to 42 inches: silty clay loam Bt4 - 42 to 49 inches: silty clay loam Bt5 - 49 to 73 inches: clay loam **Properties and qualities** Slope:2 to 9 percent Depth to restrictive feature: More than 80 inches Drainage class:Moderately well drained Capacity of the most limiting layer to transmit water (Ksat):Moderately high (0.20 to 0.60 in/hr) Depth to water table: About 20 to 39 inches Frequency of flooding:None Frequency of ponding:None Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water supply, 0 to 60 inches: Very high (about 12.2 inches) Interpretive groups Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C Ecological site: F004BI101CA - Low elevation marine and floodplain terraces

Hydric soil rating: No



257—Lepoil-Candymountain complex, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2p9zc Elevation: 10 to 800 feet Mean annual precipitation: 35 to 90 inches Mean annual air temperature: 50 to 54 degrees F Frost-free period: 275 to 325 days Farmland classification: Not prime farmland

Map Unit Composition

Lepoil and similar soils:45 percent Candymountain and similar soils:40 percent Minor components:15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lepoil

Setting

Landform:Marine terraces Landform position (two-dimensional):Summit Landform position (three-dimensional):Tread Down-slope shape:Linear Across-slope shape:Linear Parent material:Mixed marine deposits derived from sedimentary rock

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

A - 2 to 16 inches: loam

Bt - 16 to 69 inches: clay loam

2CBt - 69 to 75 inches: very fine sandy loam

2C - 75 to 83 inches: fine sand

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Properties and qualities

Slope:2 to 15 percent

Depth to restrictive feature:More than 80 inches

Drainage class:Well drained

Capacity of the most limiting layer to transmit water (Ksat):Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table:More than 80 inches

Frequency of flooding:None

Frequency of ponding:None

Maximum salinity:Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: C Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam Hydric soil rating: No



Description of Candymountain Setting

Landform:Marine terraces Landform position (two-dimensional):Summit Landform position (three-dimensional):Tread *Down-slope shape:Linear* Across-slope shape:Linear Parent material: Mixed marine deposits derived from sedimentary rock Typical profile Oi - 0 to 4 inches: slightly decomposed plant material A - 4 to 15 inches: fine sandy loam Bw - 15 to 31 inches: fine sandy loam BC - 31 to 45 inches: fine sandy loam C - 45 to 60 inches: very fine sand **Properties and qualities** Slope:2 to 15 percent Depth to restrictive feature:More than 80 inches Drainage class:Well drained Capacity of the most limiting layer to transmit water (Ksat):Moderately high to high (0.60 to 2.00 in/hr) Depth to water table:More than 80 inches Frequency of flooding:None Frequency of ponding:None Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water supply, 0 to 60 inches: Moderate (about 8.6 inches) Interpretive groups Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: B Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam Hydric soil rating: No (USDA-NRCS, 2021b)

6.0 Regulatory Setting

6.1 Federal Laws

6.1.1 Section 401 and 404 of the Clean Water Act

Under Section 404 of the Clean Water Act (CWA; 33 U.S. Code [USC] 1344; U.S. Code of Federal Regulations (CFR), 1986), as amended, the USACE and the Environmental Protection Agency (EPA) retain primary responsibility for regulating discharge of dredged or fill material into "navigable waters of the United States." All discharges of dredged or fill material into jurisdictional WoUS that result in permanent or temporary losses of WoUS are regulated by the USACE. A permit from the USACE must be obtained before placing fill or grading in wetlands or other WoUS, unless the activity is exempt from CWA Section 404 regulation (for example, certain farming and forestry activities).



In summary, the definition of WoUS as defined by 33 CFR Section 328.3 includes:

- 1. waters used for commerce,
- 2. interstate wetlands,
- 3. all other waters (including lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds),
- 4. impoundments of water,
- 5. tributaries to aforementioned waters,
- 6. territorial seas, and
- 7. wetlands adjacent to waters.

Under 33 CFR 328.3, WoUS do not include prior converted cropland or waste treatment systems. In 2008, the EPA and USACE released a guidance memorandum implementing the Supreme Court's decision in the cases of the Rapanos v. U.S. and Carabell v. U.S. Because of these cases, the agencies will apply a significant nexus standard to the following categories of waterbodies to determine if it meets the definition of WoUS:

- Non-navigable tributaries that are not relatively permanent
- Wetland adjacent to non-navigable tributaries that are not relatively permanent
- Wetland adjacent to but that does not directly abut a relatively permanent tributary

Section 401 of the CWA (33 USC 1341) requires that applicants for a federal license or permit obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards (EPA, 1986). The certification is obtained from the state in which the discharge originates or would originate, or if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

6.1.2 Rivers and Harbors Appropriation Act of 1899

The River and Harbors Appropriation Act of 1899 addresses activities that involve the construction of dams, bridges, dikes, and other structures across any navigable water. Placing obstructions to navigation outside established federal lines and excavating from or depositing material in such waters require permits from the USACE. Section 10 of the Rivers and Harbors Appropriation Act (33 USC 403) prohibits the unauthorized obstruction or alteration of any navigable WoUS.

6.2 State Laws

6.2.1 Porter-Cologne Water Quality Control Act

The State of California maintains independent regulatory authority over the placement of waste, including fill, into WoS under the Porter-Cologne Water Quality Control Act. WoS are defined by the Porter-Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The SWRCB protects all waters in its regulatory scope but has



special responsibility for isolated wetlands and headwaters. WoS are regulated by the RWQCBs under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.

Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact WoS are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit but does involve activities that may result in a discharge to WoS, then the local RWQCB has the option to regulate such activities under its state authority in the form of waste discharge requirements (WDRs) or certification of WDRs. Water Quality Order No. 2004-0004-DWQ specifies general WDRs for dredge or fill discharges to waters deemed by the USACE to be outside of federal jurisdiction under Section 404 of the CWA.

7.0 Methods

Wetland delineation fieldwork was conducted on November 11, 2021. Wetland delineation methods described in *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and *The Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: Western *Mountains, Valleys, and Coast Region (Version 2.0*; USACE, 2010) were used to identify potential wetlands and other waters. The routine method for wetland delineation described in the Environmental Laboratory 1987 manual was used to identify potential wetlands within the study area. The USACE method relies on a three-parameter approach, in which criteria for hydrophytic vegetation, hydric soils, and wetland hydrology must each be met (present at the point of field investigation) to conclude that an area is a wetland.

Hydrophytic vegetation refers to plant species known to be adapted to wetland sites. To classify the hydrophytic plants onsite, the most recent *Western Mountains, Valleys, and Coast 2018 Regional Wetland Plant List* was used (USACE, 2018). Hydric soils are those formed under saturated conditions, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile (USDA-NRCS, 2018). Wetland hydrology is demonstrated through direct evidence (primary indicators) or indirect evidence (secondary indicators) of flooding, ponding, or saturation for a significant portion of the growing season (USACE, 2010).

Prior to conducting the field investigation, SHN staff reviewed the USGS topographic quadrangle map (Figure 1); Google Earth (Google Earth, 2021); USDA-NRCS Web Soil Survey website (USDA-NRCS, 2021b; Appendix 2); and NWI map (USFWS, 2021; Appendix 2). Visual inspection of the site prior to TP excavation was performed to identify appropriate TP locations and potential wetland locations and boundaries. During the TP subsurface investigation, sample points were characterized at each pit for the botanical, hydrological, and soil parameters. Wetland TP locations were selected to:

- achieve appropriate coverage and characterization of wetland and upland habitats,
- document potential changes in the vegetative community (such as a shift in the dominant species), and
- determine the approximate boundary line between wetlands and uplands by evaluating the extent of key wetland criteria (hydrology, hydric soils, and hydrophytic vegetation).

TP locations were mapped using a Trimble sub-meter GPS (global positioning system) unit.



7.1 Vegetation Methods

Prior to the wetland field investigations (November 11, 2021), a review of plant species reported to be within the study area was performed by querying the Consortium of California Herbaria (Consortium of California Herbaria, 2021) database records and Calflora (Calflora, 2021) observations. It was determined that the site investigation was performed during an above-normal rainfall period by reviewing rainfall data (see Section 3.2 Site Hydrology, Table 1). Absolute percent cover of each plant species was visually estimated within the sample point and within each vegetation stratum. The tree stratum was inspected at a 30-foot radius centered on the sample point, and the herb and sapling/shrub strata, at a 5-foot radius. Botanical nomenclature follows *The Jepson Manual, Vascular Plants of California* (Baldwin et al., 2012) in addition to the online Jepson Interchange (University of California, Berkeley, 2021) for verification of species whose taxonomy may have changed since its publication.

The 50/20 method¹ was applied to each stratum to determine the dominant plant species within the vicinity of the test pit. Hydrophytic vegetation wetland parameter requires dominance by hydrophytic vegetation. If hydric soils and wetland hydrology were present, the prevalence index² was applied. The occurrence and type of plant cover determine whether an area satisfies the wetland vegetation parameter criteria. Sites displaying wetland hydrology and hydric soil, but with little or no plant cover, or other sites not capable of supporting hydrophytic plant communities in normal circumstances, may be wetlands as defined by the state of California. Those sites with little or no plant cover, or other sites not capable of supporting hydrophytic plant communities in normal circumstances are identified as other waters, provided they have an OHWM.

7.2 Soils Methods

Soils were field verified for the presence or absence of hydric conditions. All TPs were manually excavated using hand tools to a minimum depth of 24 inches when possible. The thickness of each soil horizon was measured. The Munsell Soil Color Chart (Munsell, 2009) was referenced to determine the colors of the moist soil matrix and redoximorphic (redox) features (if present). Soils were closely inspected for hydric soil indicators, as defined by the NRCS "Field Indicators of Hydric Soils in the United States" (USDA-NRCS, 2018).

7.3 Hydrology Methods

Observations for wetland hydrology were made during TP excavations on November 11, 2021. Wetland hydrology is determined by the presence of surface and/or ground water in addition to indirect hydrologic indicators (such as, water marks, drift deposits, sediment deposits, drainage patterns, geomorphic position, water-stained leaves, and similar features). Indicators of extended periods of saturation would include oxidized rhizospheres surrounding living roots or the presence of reduced iron or sulfur in the soil profile. A site must contain at least one primary indicator or two secondary

² The prevalence index is a weighted-average wetland indicator status of all plant species in the sampling plot or other sampling unit, where each indicator status category is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5) and weighting is by abundance (absolute percent cover).



¹ The 50/20 rule: for each stratum of the plant community, dominant species are the most abundant species that (when ranked in descending order of abundance and cumulatively totaled) immediately exceed 50% of total dominance measure for the stratum, plus any additional species that individually comprise 20% or more of the total dominance measure for the stratum (USACE, 2010).

indicators to qualify for the hydrology parameter (Section 3.2 Site Hydrology). In addition, aerial imagery was reviewed that may show past inundation, seasonal inundation patterns, or changes onsite that may have influenced hydrology.

7.4 Ordinary High Water Mark Methods

For purposes of Section 404 of the CWA, the lateral limits of federal jurisdiction over non-tidal water bodies in the absence of adjacent wetlands extend to the OHWM. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. For purposes of Sections 9 and 10 of the Rivers and Harbors Act of 1899, the lateral extent of federal jurisdiction, which is limited to the traditional navigable waters of the United States, extends to the OHWM, whether or not adjacent wetlands extend landward of the OHWM (USACE, 2014).

USACE regulations define the term OHWM for the purposes of the CWA lateral jurisdiction as follows:

"The term "ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas at 33 CFR 328.3(e)."

The OHWM in non-perennial streams corresponds with the boundaries of the active channel, which are typically expressed by some combination of three primary indicators: a topographic break in slope, change in sediment characteristics, and change in vegetation characteristics (USACE, 2014). The following supporting features should be considered when making an OHWM determination, to the extent that they can be identified and are deemed reasonably reliable (USACE, 2014):

- Drift/wrack
- Erosion/scour
- Bank undercutting
- Root exposure
- Point bars
- Water staining

- Litter removal
- Silt deposits
- Shelving
- Headcut/knickpoint
- Macroinvertebrates

8.0 Discussion and Results

Visual inspection of the study area prior to TP excavation revealed well-drained sedimentary soils dominated by non-native grasses and forbs in the majority of the elevated terrace (eastern portion of the study area) and redwood and red alder dominant in the eroded terrace slopes and gulch to the west. Eleven TPs were excavated by hand (Figure 2), and data for each TP was recorded for soils, vegetation, and hydrology on USACE Wetland Determination Data Forms (Appendix 3). The investigation occurred during an "above normal" rainfall period within the growing season for this region (Section 3.2 Site Hydrology). Normal circumstances were considered present, as no current disturbances were observed at the site and no recent disturbance was noted on historical Google Earth imagery.



A freshwater forested/shrub wetland occurs west of the study area as shown on the NWI map (Appendix 2). The NWI mapping generally shows the wetland confined to the main northwest-southeast drainageway gulch. During this investigation, the wetland boundary was found to extend east from the main drainage up several side ravines carved out by seeps issuing from the west facing terrace slope. Paired plots were excavated to help delineate the extent of the wetland boundary within this region including: TP4 and 5, TP6 and 7, TP8 and 9, and TP10 and 11.

No OHWM indicators were present within the study area. The nearest OHWM indicators were west of the wetland boundary shown on Figure 2. See the discussion sections below for each TP, which describe the physical features and considerations of the site, followed by a data section that summarizes information from the completed USACE Wetland Determination Data Forms (Appendix 3). A map of the study area is included as Figure 2 and photos of the study area are presented in Appendix 1.

8.1 TP1

8.1.1 Discussion TP1

TP1 was excavated at the central portion of the project area on the upper terrace (Figure 2; Appendix 1, Photo 1). The test site was chosen to represent the eastern flat portion of the parcel. No wetland parameters were met at this TP; therefore, TP1 and the surrounding area do not meet the State or USACE wetland definition.

8.1.2 Data TP1

TP1 vegetation contained an herb stratum. The dominant species were creeping bent grass [FAC] with 30-percent cover, orchard grass [FACU] with 25-percent cover; and subterranean clover (*Trifolium subterranean* [NL]) with 20-percent cover. Vegetation dominance by a mix of upland and wetland indicator species do not meet the hydrophytic vegetation parameter.

No hydric soil or wetland hydrology indicators were observed.

8.2 TP2

8.2.1 Discussion TP2

TP2 was excavated north of TP1 as an additional investigation of conditions within the flat upper terrace (Figure 2; Appendix 1, Photo 2). One wetland parameter (hydrophytic vegetation) was present at this TP, and therefore TP2 and the surrounding area do not meet State or USACE wetland definition.

8.2.2 Data TP2

TP2 vegetation contained the herb stratum. The dominant species was ryegrass [FAC] with 71-percent cover. The vegetation dominance by a Facultative wetland indicator species meets the hydrophytic vegetation parameter.

No hydric soil or wetland hydrology indicators were observed.



8.3 TP3

8.3.1 Discussion TP3

TP3 was excavated in a dry ravine extending east into the terrace (Figure 2). No wetland parameters were met at this TP; therefore, TP3 and the surrounding area do not meet the State or USACE wetland definition.

8.3.2 Data TP3

TP3 vegetation contained the tree stratum and the woody vine stratum. The dominant species for the tree stratum was coast redwood [NL] with 98-percent cover. The woody vine stratum dominant species was English Ivy [FACU] with 21-percent cover. Vegetation dominance by a mix of upland species does not meet the hydrophytic vegetation parameter.

No hydric soil or wetland hydrology indicators were observed.

8.4 TP4

8.4.1 Discussion TP4

TP4 was excavated in the northwest-southeast gulch, west of the terrace at the toe of slope (Figure 2; Appendix 1, Photo 4). Three wetland parameters were present at this TP; therefore, TP4 and adjacent area meet both the State and USACE wetland definitions.

8.4.2 Data TP4

TP4 vegetation contained the tree, sapling/shrub, and herb stratums. The dominant tree species was red alder [FAC] with 65-percent cover. The dominant sapling/shrub stratum species were Himalayan and California blackberries (*Rubus armeniacus* [FAC] and *Rubus ursinus* [FACU] respectively), both with 4-percent coverage. The dominant herb stratum species were skunk cabbage [OBL] with 25-percent cover and pig-a-back plant [FAC] with 20-percent cover. Vegetation dominance by a wetland indicator species meets the hydrophytic vegetation parameter.

Hydric soil indicators observed were the Depleted Below Dark Surface (A11), Depleted Matrix (F3) and "Other" for the observance of the alpha, alpha-Dipyridyl reaction within the top 12 inches of the soil surface, therefore meeting the criteria for the hydric soil parameter.

The primary hydrology Presence of Reduced Iron (C4) indicator was observed (alpha, alpha-Dipyridyl reaction within the top 12 inches), therefore meeting the criteria for the hydrology parameter.

8.5 TP5

8.5.1 Discussion TP5

TP5 was excavated approximately 16 feet upslope and east of TP4. TP5 is the upland paired plot for TP4 (Figure 2; Appendix 1, Photo 4). Only one wetland parameter (hydrophytic vegetation) was met at this TP; therefore, TP5 and the adjacent area do not meet the State or USACE wetland definition.

8.5.2 Data TP5

TP5 vegetation contained the tree, sapling/shrub, and herb stratums. The dominant tree species were coast redwood [NL] with 60-percent cover and red alder [FAC] with 20-percent cover. The sapling/shrub stratum contained coast twinberry (*Lonicera involucrata var. ledebourii* [FAC]) with 15-percent cover and



California blackberry [FACU] with 4-percent cover. The herb stratum contained the pig-a-back plant [FAC] with 60-percent cover. Vegetation dominance by wetland indicator species meets the hydrophytic vegetation parameter.

No hydric soil or wetland hydrology indicators were observed.

8.6 TP6

8.6.1 Discussion TP6

TP6 was excavated in the northwest-southeast drainage area and is the paired upland plot for TP7 (Figure 2; Appendix 1, Photo 5). Two wetland parameters were observed at this TP (hydrophytic vegetation and hydric soil) therefore, TP6 and the adjacent area do not meet the State or USACE wetland definition.

8.6.2 Data TP6

TP6 vegetation contained the tree, sapling/shrub, herb, and woody vine stratums. The sapling/shrub and woody vine stratums had less than 5-percent absolute cover and therefore do not contribute to the dominance test calculations and are not discussed in this section. The dominant tree species were red alder [FAC] with 70-percent cover and coast redwood [NL] with 20-percent cover. The herb stratum contained slough sedge (*Carex obnupta* [OBL]) with 50-percent cover and deer fern [FAC]) with 40-percent cover. Vegetation dominance by wetland indicator species meets the hydrophytic vegetation parameter.

Hydric soil indicators observed was the Depleted Below Dark Surface (A11), therefore meets the criteria for the hydric soil parameter.

No wetland hydrology indicators were observed.

8.7 TP7

8.7.1 Discussion TP7

TP7 was excavated as a paired wetland plot for TP6. It is at the toe of slope of the eroded terrace to the east (Figure 2; Appendix 1, Photo 5). Three wetland parameters were present at this TP; therefore, TP7 and the adjacent area meet both the State and USACE wetland definitions.

8.7.2 Data TP7

TP7 vegetation contained the tree, sapling/shrub, and herb stratums. The dominant tree species was the red alder [FAC] with 95-percent cover. The sapling/shrub stratum contained red elderberry (*Sambucus racemosa* var. *racemosa* [FACU]) with 10-percent cover. The herb stratum contained slough sedge [OBL] with 50-percent cover and deer fern [FAC] with 18-percent cover. Vegetation dominance by wetland indicator species meets the hydrophytic vegetation parameter.

Hydric soil indicators observed were the Depleted Below Dark Surface (A11) indicator and "Other" indicator for the observance of the alpha, alpha-Dipyridyl reaction within the top 12 inches of the soil surface, therefore meeting the criteria for the hydric soil parameter.



Presence of Reduced Iron (C4) and (alpha, alpha-Dipyridyl reaction within the top 12 inches) wetland hydrology indicators were observed, meeting the criteria for the wetland hydrology parameter.

8.8 TP8

8.8.1 Discussion TP8

TP8 was excavated to determine the eastern extent of the wetland edge within a small ravine containing a seep cutting into the eastern terrace. It is the situated in the transitional zone between the upland and wetland boundary (Figure 2, Appendix 1, Photo 6). Two wetland parameters were observed at this TP (hydric soil and wetland hydrology) however hydrophytic vegetation dominance occurs within a very localized area around the seep but is obscured by upland vegetation occurring on the surrounding slopes. Because hydric soils and wetland hydrology are present with localized hydrophytic vegetation dominance, vegetation is determined to be problematic and the vegetation parameter has been met. All three wetland parameters were present at this TP; therefore, TP8 and the adjacent area associated with the seep meet both the State and USACE wetland definitions.

8.8.2 Data TP8

TP8 vegetation contained the tree, herb, and woody vine stratums. The woody vine stratum had less than 5-percent absolute cover and is not considered in the dominance test calculations. The dominant tree species was coast redwood [NL] with 50-percent cover, however this species reflects upland conditions on the slope above the small seep wetland. The herb stratum contained lady [FAC] from within the wetland area with 30-percent cover and sword fern [FAC] from the adjacent upland slope with 30-percent cover. Vegetation dominance within the localized seep wetland meets the hydrophytic vegetation parameter.

Hydric soil indicators observed were the Redox Dark Surface (F6) indicator and "Other" indicator for the observance of the alpha, alpha-Dipyridyl reaction within the top 12 inches of the soil surface, therefore meeting the criteria for the hydric soil parameter.

The primary wetland hydrology indicators, Saturation (A3) and the Presence of Reduced Iron (C4) (alpha, alpha-Dipyridyl reaction within the top 12 inches) were observed, therefore meeting the criteria for the wetland hydrology parameter.

8.9 TP9

8.9.1 Discussion TP9

TP9 was excavated eight feet east and upslope from TP8 as the upland paired plot, confirming the eastern boundary of the wetland (Figure 2; Appendix 1, Photo 6). One wetland parameter (hydric soil) was present at this TP; therefore, TP9 and the surrounding hillslope do not meet the State or USACE wetland definition.

8.9.2 Data TP9

TP9 vegetation contained the tree, sapling/shrub, herb, and woody vine stratums. The woody vine stratum had less than 5-percent absolute cover and is not considered in the dominance test calculations. The dominant tree species were coast redwood [NL] with 50-percent cover and cherry



plum (*Prunus cerasifera* [NL]) with 20-percent cover. The herb stratum contained sword fern [FACU] with 50-percent cover and lady fern [FAC] with 15-percent cover. Vegetation dominance by a mix of upland and wetland indicator species do not meet the hydrophytic vegetation parameter.

Redox Dark Surface (F6), hydric soil indicator was observed meeting the criteria for the hydric soil parameter.

No wetland hydrology indicators were observed.

8.10 TP10

8.10.1 Discussion TP10

TP10 was excavated to determine the eastern wetland edge within a small ravine containing a seep cutting into the eastern terrace. It is situated in the transitional zone between the upland and wetland and conditions were similar to those observed at TP8. Two wetland parameters were observed at this TP (hydric soil and wetland hydrology) however hydrophytic vegetation dominance occurs within a very localized area around the seep but is obscured by upland vegetation occurring on the surrounding slopes. Because hydric soils and wetland hydrology are present with localized hydrophytic vegetation dominance, vegetation is determined to be problematic, and the vegetation parameter has been met. All three wetland parameters were present at this TP; therefore, TP10 and the adjacent area associated with the seep meet both the State and USACE wetland definitions.

8.10.2 Data TP10

TP10 vegetation contained the tree and herb stratums. The dominant tree species were cherry plum [NL] with 50-percent cover, coast redwood [NL] with 40-percent cover, and red alder [FAC] with 25-percent cover, however tree species composition reflects upland conditions on the slope above the small seep wetland. The herb stratum contained lady fern [FAC] from within the wetland area with 32-percent cover. Vegetation dominance within the localized seep wetland meets the hydrophytic vegetation parameter.

Hydric soil indicators observed with soils Depleted Below Dark Surface (A11), Loamy Gleyed Matrix (F2), and "Other" for the observance of the alpha, alpha-Dipyridyl reaction within the top 12 inches of the soil surface, therefore meeting the criteria for the hydric soil parameter.

Wetland hydrology was observed with a High Water Table (A2), Saturation (A3), and the Presence of Reduced Iron (C4) indicators (alpha, alpha-Dipyridyl reaction within the top 12 inches) meeting the criteria for the wetland hydrology parameter.

8.11 TP11

8.11.1 Discussion TP11

TP11was excavated approximately 8.5 feet east of TP10 as the upland paired pit to determine the eastern wetland edge. No wetland parameters were met at this TP; therefore, TP11 and the surrounding hillside area do not meet the State or USACE wetland definition.



8.11.2 Data TP11

TP11 vegetation contained the tree, herb, and woody vine stratums. The dominant tree species was coast redwood [NL] with 60-percent cover and cherry plum [NL] with 50-percent cover. The herb stratum contained lady fern [FAC] with 30-percent cover and sword fern [FAC] with 23-percent cover. The woody vine stratum contained English Ivy [FACU] with 40-percent cover. Dominance by a mix of upland and wetland indicator species did not meet the hydrophytic vegetation parameter.

No hydric soil or wetland hydrology indicators were observed.

9.0 Conclusions

Three-parameter seasonal and perennial wetlands occur on the county-owned parcel, west of the proposed project area. The eastern boundary of these wetlands are shown on Figure 2. Perennial wetlands occur within the lower elevations of the gulch. Several seepages within the gulch hillslope have created eastern-trending fingers of seasonal wetlands, and seasonal wetlands also exist along the base of the gulch hillslope at slightly higher elevations than the perennial wetlands (Figure 2). Paired plots were excavated in these seepages and along the toe of slope to find the approximate extent of the wetland boundary. No wetlands or wetland conditions were observed within the proposed project area reflecting the elevated, well-drained conditions at the top of the terrace. The proposed project area is within planning area of the Eureka Community plan (County of Humboldt, 1995) which references the Humboldt County General plan (County General Plan, seasonal wetlands are given a 50-foot buffer and perennial wetlands are given a 150-foot buffer. Seasonal and perennial wetlands intergrate throughout the gulch area. We recommend that the wetland buffer be set back 10 feet from the top of bank along the gulch as shown on Figure 2. This will give wetland areas a minimum 50-foot buffer and will exceed 100 feet for half of the buffer length along the proposed project area.

Table 2 describes the number and type of parameters met at each of the eleven TPs. Figure 2 indicates the wetland boundary and TP locations within the study area.

Eureka, Humbolut County, Camornia					
TP ^a Number	Parameters Present	Parameter Type	Latitude/Longitude		
TP1	0	None	40.791593° -124.134756°		
TP2	1	Hydrophytic Vegetation	40.792021°/ -124.134824°		
TP3	0	None	40.791847°/ -124.135242°		
TP4	3	Hydrophytic Vegetation, Hydric Soils, Hydrology	40.792002°/ -124.135685°		
TP5	1	Hydrophytic Vegetation	40.791989°/ -124.135631°		
TP6	2	Hydrophytic Vegetation, Hydric Soils	40.791867°/ -124.135865°		

Table 2.Parameters Met at Each Test Pit, November 2021Eureka, Humboldt County, California



TP ^a Number	Parameters Present	Parameter Type	Latitude/Longitude
TP7	3	Hydrophytic Vegetation, Hydric	40.791854°/ -124.135898°
TP8	3	Soils, Hydrology Hydrophytic Vegetation, Hydric Soils, Hydrology	40.791685°/ -124.135415°
TP9	1	Hydric Soils	40.791681°/ -124.135395°
TP10	3	Hydrophytic Vegetation, Hydric Soils, Hydrology	40.791461°/ -124.135338°
TP11	0	None	40.791480°/ -124.135320°

^a TP: test pit

10.0 Limitations

The conclusions in this report document conditions at the time of field work and some wetland conditions and plant species may not have been identifiable or may not have been present. This report documents the investigation by using the best professional judgment of SHN's wetland ecologist and soil scientist.

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Site Photographs



Photo 1: Existing residential structure and outbuildings on APN 015-111-012, looking west towards coast redwood forest on gulch hillslope. Photo taken November 11, 2021.



Photo 2: Looking north across non-native lawn towards structures on APN 015-111-006. Photo taken November 11, 2021.



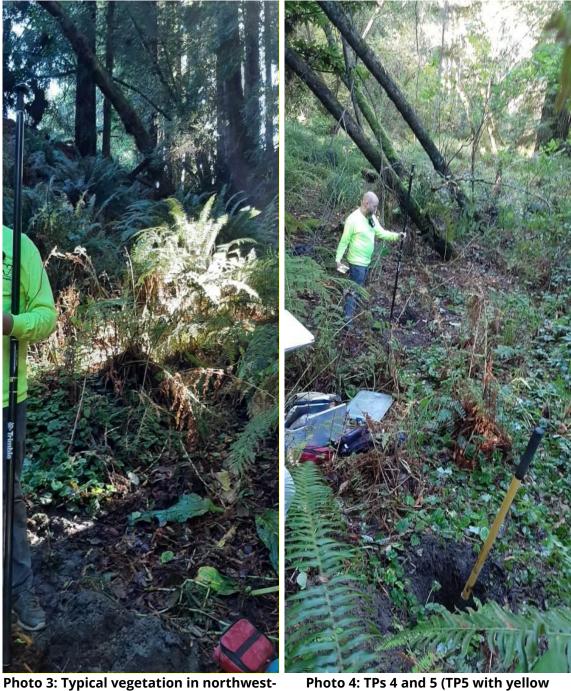


Photo 3: Typical vegetation in northwestsoutheast drainage gulch. Photo taken November 11, 2011.

Photo 4: TPs 4 and 5 (TP5 with yellow shovel and TP4 with GPS antenna pole). Photo taken November 11, 2011.





Photo 5: TP6 and TP7 (TP7 with yellow shovel and TP6 with GPS antenna pole). Looking east, upslope towards terrace. Photo taken November 11, 2021.

Photo 6: Location of TP8 and TP9 (looking west towards TP8 with yellow shovel). Eroded ravine with seep draining to the main gulch. Photo taken November 11, 2021.

National Wetlands Inventory Soil Map

2



U.S. Fish and Wildlife Service National Wetlands Inventory

Paye JJ Rental Wetland



November 9, 2021

Wetlands

Estuarine and Marine Deepwater

- Estuarine and Marine Wetland
- Freshwater Pond

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Humboldt County, Central Part, California



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



	MAP L	EGEND		MAP INFORMATION
	terest (AOI) Area of Interest (AOI)	64	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:24,000.
Soils ~~ B Special © X X	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features Blowout Borrow Pit Clay Spot	Ø ♥ ▲ Water Featur Transportati	Streams and Canals	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.
◇ ☆ ◆ ○ ○ ◇ + ☆ ○ ○ ◇ + ☆ ○	Closed Depression Gravel Pit Gravelly Spot Landfill Lava Flow Marsh or swamp Mine or Quarry Miscellaneous Water Perennial Water Rock Outcrop Saline Spot Sandy Spot Severely Eroded Spot	Background	Interstate Highways US Routes Major Roads Local Roads Aerial Photography	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, Central Part, California Survey Area Data: Version 7, Sep 6, 2021 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
۵ ۵ ۵ ۵	Severely Eroded Spot Sinkhole Slide or Slip Sodic Spot			Date(s) aerial images were photographed: May 8, 2019—Jun 21, 2019 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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
230	Hookton-Tablebluff complex, 2 to 9 percent slopes	1.8	53.5%
257	Lepoil-Candymountain complex, 2 to 15 percent slopes	1.6	46.5%
Totals for Area of Interest	·	3.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Humboldt County, Central Part, California

230—Hookton-Tablebluff complex, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: 2ljdr Elevation: 30 to 820 feet Mean annual precipitation: 41 to 53 inches Mean annual air temperature: 52 to 55 degrees F Frost-free period: 270 to 330 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Hookton and similar soils: 45 percent Tablebluff and similar soils: 40 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hookton

Setting

Landform: Erosion remnants Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

Typical profile

A1 - 0 to 4 inches: loam *A2 - 4 to 15 inches:* loam *Bt - 15 to 27 inches:* clay loam *Bw1 - 27 to 39 inches:* clay loam *Bw2 - 39 to 60 inches:* clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 10 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C/D Ecological site: R004BA203CA - Riparian Hydric soil rating: No

Description of Tablebluff

Setting

Landform: Erosion remnants Landform position (two-dimensional): Summit Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Parent material: Eolian deposits over mixed alluvium

Typical profile

Ap1 - 0 to 6 inches: silty clay loam Ap2 - 6 to 11 inches: silty clay loam AB - 11 to 16 inches: silty clay loam Bt1 - 16 to 20 inches: silty clay loam Bt2 - 20 to 29 inches: silty clay loam Bt3 - 29 to 42 inches: silty clay loam Bt4 - 42 to 49 inches: silty clay loam Bt5 - 49 to 73 inches: clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 20 to 39 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very high (about 12.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C Ecological site: F004BI101CA - Low elevation marine and floodplain terraces Hydric soil rating: No

Minor Components

Urban land, residential

Percent of map unit: 5 percent Landform: Marine terraces Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread Down-slope shape: Convex Across-slope shape: Linear Hydric soil rating: No

Cannonball

Percent of map unit: 5 percent Landform: Marine terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam

Hydric soil rating: No

Megwil,

Percent of map unit: 5 percent Landform: Marine terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Ecological site: F004BX120CA - Redwood-Sitka spruce/California huckleberrysalmonberry/western swordfern-deer fern, marine terraces, loam Hydric soil rating: No

257—Lepoil-Candymountain complex, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2p9zc Elevation: 10 to 800 feet Mean annual precipitation: 35 to 90 inches Mean annual air temperature: 50 to 54 degrees F Frost-free period: 275 to 325 days Farmland classification: Not prime farmland

Map Unit Composition

Lepoil and similar soils: 45 percent Candymountain and similar soils: 40 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lepoil

Setting

Landform: Marine terraces Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed marine deposits derived from sedimentary rock

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material *A - 2 to 16 inches:* loam *Bt - 16 to 69 inches:* clay loam *2CBt - 69 to 75 inches:* very fine sandy loam *2C - 75 to 83 inches:* fine sand

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: C Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam Hydric soil rating: No

Description of Candymountain

Setting

Landform: Marine terraces Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed marine deposits derived from sedimentary rock

Typical profile

Oi - 0 to 4 inches: slightly decomposed plant material *A - 4 to 15 inches:* fine sandy loam *Bw - 15 to 31 inches:* fine sandy loam *BC - 31 to 45 inches:* fine sandy loam *C - 45 to 60 inches:* very fine sand

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: B *Ecological site:* F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam *Hydric soil rating:* No

Minor Components

Cannonball

Percent of map unit: 10 percent Landform: Marine terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Linear Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces, marine deposits, sandy loam and loam Hydric soil rating: No

Hutsinpillar

Percent of map unit: 5 percent Landform: Marine terraces, drainageways Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread Down-slope shape: Concave, linear Across-slope shape: Concave, linear Hydric soil rating: Yes

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Wetland Determination Data Forms

3

Project/Site: JJ Rentals	City/County: Humboldt	Sampling Date:
pplicant/Owner: Paye	State: CA	
nvestigator(s): Joseph Saler, Cindy Wilcox	Section, Township, Range:	
andform (hillslope, terrace, etc.): Uplifed Marine	Section, rownship, Range.	
Subregion (LRR): A; MLRA 4B	Lat: 40.79593 Long - 24.	
oil Map Unit Name: Hook-ton - Tablejiu	11 1 0 601	
	8.7	assification: none
re climatic / hydrologic conditions on the site typical for t		n in Remarks.)
e Vegetation, Soil, or Hydrology	significantly disturbed? Are "Normal Circumstan	ces" present? Yes <u> </u>
e Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any a	answers in Remarks,)
UMMARY OF FINDINGS – Attach site may	showing sampling point locations, trans	ects, important features, et
	No X	
Hydric Soil Present? Yes	No V Is the Sampled Area	\checkmark
Vetland Hydrology Present? Yes		No <u>~</u>
Remarks: 1 1		1 1
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98

(Thotch

2%

Non-notive moved lawn conditions

J.

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= Total Cover 49

= Total Cover

- Rapid Test for Hydrophytic Vegetation 1
- 2 Dominance Test is >50%
- 3 Prevalence Index is ≤3.0¹
 - 4 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- 5 Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)

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

No

Hydrophytic Vegetation Present? Yes

9. JosaXacum 10 Bellis Derrenis

ory

MUSAM

11. Woody Vine Stratum (Plot size: 1., 2.

% Bare Ground in Herb Stratum

im

NC

4.

5.

6.

7.

8.

Remarks:

SOIL

Sampling Point: TP 1 Consulting Engineers

Prome Description: (Describe to the dep	th needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (mojst) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
0-9 104R 4/3 100		<u>CL</u> <u>Fill</u>
9-24 10VR3/4 85		CL Fill, multiple fill events
10YR 3/3 5		
15VR 511 TO		
· · · · · · · · · · · · · · · · · · ·		
¹ Tune: C=Concentration D=Depletion RM	=Reduced Matrix, CS=Covered or Coated Sand Gra	ains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histosof (A1) Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре:		
Depth (inches):	· · · · · · · · · · · · · · · · · · ·	Hydric Soil Present? Yes No
Remarks:	No redox features.	
HYDROLOGY		
Wetland Hydrology Indicators:	d; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one require</u> Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches):A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches):A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches):A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches):A Depth (inches):A Wetta	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) \$\$ Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches):A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) \$\$ Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches): NA Depth (inches): NA No Depth (inches): NA Wetta ionitoring well, aerial photos, previous inspections),	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) ¥ Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches): NA No Depth (inches): NA Wetta ionitoring well, aerial photos, previous inspections),	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) \$\$ Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) (B8) No Depth (inches): NA Depth (inches): NA No Depth (inches): NA Wetta ionitoring well, aerial photos, previous inspections),	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) X Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

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

r Geologists, Inc.	dhth	21
Project/Site: JJ Rentals	_ City/County: Humboldt Sampling Date: (1/)) / 2	1
Applicant/Owner: Paye	State: <u>CA</u> Sampling Point: <u>TP 2</u>	
Investigator(s): Joseph Saler, Cindy Wilcox	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Weitted appine terrace	Local relief (concave, convex, none): None Slope (%):)-1
Subregion (LRR): A; MLRA 4B	0.792021° Long: -124.134824° Datum: WG	584
Soil Map Unit Name: Hookton Tuble blutt comple	lex 2-9% slopes NWI classification: none	1000
Are climatic / hydrologic conditions on the site typical for this time of ye	rear? Yes X No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes X No	
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features,	, etc.
Hydrophytic Vegetation Present? Yes X No		
Hydric Soil Present? Yes No	Is the Sampled Area	
Wetland Hydrology Present? Yes No	within a Wetland? Yes No A	
Located within Low spot with ma	wed orchard adjacet to residence.	

VEGETATION – Use scientific names of plants.

	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species 1
1				That Are OBL, FACW, or FAC: (A)
2				Tatal Number of Demission 1
3				Total Number of Dominant Species Across All Strata: (B)
4.				
				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:		= Total Cove	r	That Are OBL, FACW, or FAC: (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species x 1 =
3				FACW species x 2 =
4				FAC species x 3 =
5			- 3	FACU species x 4 =
Herb Stratum (Plot size; 5(+))		= Total Cove	r	UPL species x 5 =
1. Dancus Carota or	2	f	ACU	Column Totals: (A) (B)
2. Tara Xacun Officinale	4	F	ACU	
3. Bellis perenne	4		N/	Prevalence Index = B/A =
4. Festuca perrene	17.1	1	AC	Hydrophytic Vegetation Indicators:
5. RUMEX COSPUS 1.	1-		AC	1 - Rapid Test for Hydrophytic Vegetation
	a-		HO	2 - Dominance Test is >50%
6. Runger acetosella	7		ACU	3 - Prevalence Index is ≤3.0 ¹
7. Dactulis algomerata	3		DACU	4 - Morphological Adaptations ¹ (Provide supporting
8. Geronium Molle	1		NL	data in Remarks or on a separate sheet)
9. Aypochashs radicata	5	f	ACU	5 - Wetland Non-Vascular Plants ¹
10				Problematic Hydrophytic Vegetation ¹ (Explain)
11 _*				¹ Indicators of hydric soil and wetland hydrology must
	100	= Total Cover	50	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			20	
1				Hydrophytic
2				Vegetation V
R		= Total Cover		Present? Yes 🔼 No
% Bare Ground in Herb Stratum	1			
		1	15	to the transmission of the
In the conditions forming	top	5 mal =	to	horticultural species proset.
Moned Iam carations in	1 114		ALA	Torritor of the first
				1.000

SOIL

Sampling Point: TP2 & Geologists, Inc.

Profile Description: (Describe to the dep	th needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture , Remarks
0-21 104R 3/2 99		SCL W/occasional grave
1 10 10 10		
- 10YR5/6 1	///	- till rodule
A CALCULATION OF A DEC		and the standard and the
	· · · · · · · · · · · · · · · · · · ·	
	······································	2
	Reduced Matrix, CS=Covered or Coated Sand Gra	
Hydric Soil Indicators: (Applicable to all		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes No 🔀
Remarks:	01% 82 E	
Mail Carlo la	21 inches. Notredox fe	Jen po
HILSOIL CONDER AT	ZI INCHE. NOREage TE	uning-
	· · · · · · · · · · · · · · · · · · ·	
HYDROLOGY		
Wetland Hydrology Indicators:		
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	d; check all that apply)	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one require		
Primary Indicators (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary Indicators (minimum of one require 	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2 , 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2 , 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	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 Roo	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	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 Roo Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of one require 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)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)) FAC-Neutral Test (D5) ½
Primary Indicators (minimum of one require 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)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A)	
Primary Indicators (minimum of one require 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)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)) FAC-Neutral Test (D5) ½
Primary Indicators (minimum of one require 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)	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) 7) Other (Explain in Remarks)	
Primary Indicators (minimum of one require 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 (B	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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) 7) Other (Explain in Remarks)	
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Consulting Engineers & Geologists, Inc. WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: JJ Rentals	- City/Cour	humboldt		Sampling Date:	11/1/2
Applicant/Owner: Paye			State: CA	- 10 M	
	Section	Township, Rang			0
Landform (hillslope, terrace, etc.): Gully feature on terro	Ce Local rel	ief (concave, co	nvex none): None	2 Slo	pe (%): 5 %
Subregion (LRR): A; MLRA 4B	40.791	1847°	Long - 124.13	52.42° Datu	m:WG584
Soil Map Unit Name: _ Lepoil - Candy mountain				h	
Are climatic / hydrologic conditions on the site typical for this time	1.9				
Are Vegetation, Soil, or Hydrology signific			ormal Circumstances	N N	No
Are Vegetation, Soil, or Hydrology natural			ded, explain any answ		
SUMMARY OF FINDINGS – Attach site map show			cations, transect	ts, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes No					
Hydric Soil Present? Yes No 📝		the Sampled A		X	
Wetland Hydrology Present? Yes No		ithin a Wetland			•
Remarks: Well drained jully feature with mat Callect storm water	ive red	wood trees	r. Well drakes	d +dry. Do	ernet
VEGETATION – Use scientific names of plants.					
	olute Domina	Int Indicator	Dominance Test wo	rksheet:	
	over Species		Number of Dominant		
15cqueia senpervires 9		NL	That Are OBL, FACW	/, or FAC:	(A)
3			Total Number of Dom Species Across All St		(B)
4				0	(0)
<u> </u>	= Total		Percent of Dominant That Are OBL, FACW		(A/B)
Sapling/Shrub Stratum (Plot size:)	0		Prevalence Index we	orksheet:	
1			Total % Cover of	Multipl	y by:
3			OBL species	x 1 =	
4			FACW species		
5			FAC species*		
	📐 = Total (Cover	FACU species UPL species		
Herb Stratum (Plot size:)	7		Column Totals:		
2					
3			Hydrophytic Vegeta	ex = B/A =	
4				r Hydrophytic Veget	ation
5			2 - Dominance T	est is >50%	
6			3 - Prevalence in	idex is ≤3.0 ¹	
7				I Adaptations ¹ (Prov	
8			5 - Wetland Non-	rks or on a separate	sneet)
9 10				rophytic Vegetation ¹	(Explain)
11.			¹ Indicators of hydric s		
5 (L	= Total C	Cover	be present, unless die		
Woody Vine Stratum (Plot size: 21T)	T Z	Deu			
1. Hedra belix 2			Hydrophytic	X	1
27			Vegetation Present?	/es No 🖉	×
% Bare Ground in Herb Stratum	= Total C	Jover			
Remarks:					
Redwood dutt and litter					

SOIL

r

Sampling Point: 193 & Geologists, Inc.

Janah Mohring		
Depth <u>Matrix</u> (inches) Color (moist) %	<u></u>	Texture Remarks
)-10 107R31 100	//	L Mony roots and human dela
0-24 1048 5/4 70	////	SiL
7.5 18 5/10 30	////	with charcoal pieces, fill
<u>+2162/0</u>		with chore with eccs,
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Coated Sand Gra	ains. ² Location: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable to all		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	³ Indicators of hydrophytic vecetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре		
Depth (inches):		Hydric Soil Present? Yes No X
20morka		
In redwood grove - di Fill - Notikedox	16 ~1" above soil surface, 1	Dry soils
In redwood grove - dr Fill - Notikedox YDROLOGY Netland Hydrology Indicators:		
The redwood grove - du Fill - Noticedox YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required	ed; check all that apply)	Secondary Indicators (2 or more required)
The reduced growe - da Fill - Noticedox YDROLOGY Vetland Hydrology Indicators: Irimary Indicators (minimum of one require _ Surface Water (A1)	ed; check all that apply)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
The reduced grove - da Fill - Noticedox YDROLOGY Vetland Hydrology Indicators: Vrimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
In redwood grove - di Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
In redwood grove - di Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: minary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ed; check all that apply) — Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) — Salt Crust (B11) — Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
The reduced group - du Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: Irimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	 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)
In redwood grove - do Fill - Noticedox /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ed; check all that apply) 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 Roo	 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) ts (C3) Geomorphic Position (D2)
The reduced group - da Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		 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) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
The reduced grave - da Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one required 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)	ed; check all that apply) — 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 Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C6)	Secondary Indicators (2 or more required)
The reduced group - da Fill - Noticedox VDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required 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)	ed; check all that apply) 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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)	Secondary Indicators (2 or more required)
The fedwood grove - do Fill - Noticedox Verland Hydrology Indicators: Inimary Indicators (minimum of one required 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 (B		Secondary Indicators (2 or more required)
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The fedwood grove - di Fill - Noticedox Vetland Hydrology Indicators: Trimary Indicators (minimum of one required 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 (E Sparsely Vegetated Concave Surface Field Observations:	ad; check all that apply)	Secondary Indicators (2 or more required)
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ologists, Inc. oject/Site: JJ Rentals	City/County: Hum	nboldt Sampling Date:
pplicant/Owner: Paye		
vestigator(s): Joseph Saler, Cindy Wilcox		State: <u>CA</u> Sampling Point: <u>1P4</u>
Indform (hillslope, terrace, etc.):	Section, Townshi	
ibregion (LRR): <u>A; MLRA 4B</u>		
il Map Unit Name: <u>Le poil - Candy M</u>		
e climatic / hydrologic conditions on the site typical		
e Vegetation, Soil, or Hydrology		Are "Normal Circumstances" present? Yes X No
e Vegetation, Soil, or Hydrology		(If needed, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site r	nap showing sampling po	int locations, transects, important features, e
Hydrophytic Vegetation Present? Yes	No Is the San	npled Area
Hydric Soil Present? Yes	within a M	· · · · · · · · · · · · · · · · · · ·
Vetland Hydrology Present? Yes		
K fillfromadjricet slope has like	elly obscured wetland	d hydrology
Servin sempervirens cover N	at recorded as there	represent UPland slope conditions and
EGETATION – Use scientific names of		
	Absolute Dominant Indic	ator Dominance Test worksheet:
ree Stratum (Plot size: <u>30 ft</u>)	% Cover Species? Stat	Number of Dominant Species
HIALD I WAR	65 × FA	That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
·		Species Across All Strata: (B)
C [h	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size: 547		Prevalence Index worksheet:
KUDUS UIDINNE		
Eubur armeniacus	-4 V A	OBL species x 1 =
		FACW species x 2 =
	· ·	FAC species x 3 =
	= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: 5H)		UPL species x 5 =
lower menziesii	$-40 \times fA$	Column Totals: (A) (E
Lysichitan remericanus	_23_V_0	Prevalence Index = B/A =
Attyrium filix-tening vix	usorum +A	Hydrophytic Vegetation Indicators:
·		1 - Rapid Test for Hydrophytic Vegetation
		X 2 - Dominance Test is >50%
		$$ 3 - Prevalence Index is $\leq 3.0^{1}$
to 		
0		Problematic Hydrophytic Vegetation ¹ (Explain)
1	11. Con 11. Co	¹ Indicators of hydric soil and wetland hydrology must
	52 = Total Cover	be present, unless disturbed or problematic.
Voody Vine Stratum (Plot size:)	10	(v) · · · ·
1 DOWNE 1	- Tatal O-ur	Present? Yes No
6 Bare Ground in Herb Stratum	= Total Cover	

÷.

1

Soll Sampling the depth needed to document the Indicator or confirm the absence of indicators.] Depth inches: Color (most) % Type: Type: Texture Remarks: * Colspan="2">Colspan="2" 2 = -12 Colspan="2">Colspan="2" Colspan="2" <	NIA
Topic Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.) Depth Color (most) % Type: Loc Texture Remarks. 2-72 GVR 2/1 GV 2 SVR 2/1 GV 2 SVR 2/1 GVR 2/	TP Consulting I & Geologie
Depth Matrix Redox Features Toture Remarks: 0-5 OVR 2//1 00 5/2 Ovr (moist) % Type: Loc ² Toture Remarks: 1 OVR 6/R 5 Ovr (moist) % Type: Ovr (A) 9/2 2-724 OVR 6/R 5 7.5 YE 4/4 4 C M SL Matrix (R) 7/pe: C-Cancentration, D-Depletion, RM-Reduced Matrix, CS-Coverod or Coated Sand Grains. ¹ Location: PL=Pore Lining, I Type: C-Cancentration, D-Depletion, RM-Reduced Matrix, (S) 2 Cm Muck (A10) Histos (CA1) Stripped Matrix (S) 2 Cm Muck (A10) Histos (CA1) Loarny Mucky Minrer (C1) (except MLRA 1) Very Shallow Dark Surface (A11) Depleted Matrix (S) Sandy Gleyd Matrix (S1) Depleted Matrix (F3) * Other (Explain in Remarks) Sandy Gleyd Matrix (S1) Depleted Matrix (F3) * Soil Surface (Y) Sandy Gleyd Matrix (S1) Depleted Matrix (F3) * Soil Surface. Ype: Depleted Matrix (F3) - Soil Surface. * Sandy Gleyd Matrix (S1) <	1 a Geologi
Inches Color (moist) % Tupe Loc Texture Remarks 0-5 ONR 2/1 00 SXR 5/R S M SL M DCCQS(ord 9/2) 0-12 ONR 6/R 2 SXR 5/R S M SL M DCCQS(ord 9/2) 2-244 ONR 6/R 2 SXR 5/R S M SL MARVE Soll 2-244 ONR 6/R 2 SXR 5/R S M SL MARVE Soll 2-244 ONR 6/R 2 SXR 5/R S M SL MARVE Soll 2-2744 ONR 6/R 2 SXR 5/R S M SL Marve Soll 7/pdf: Soll Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hyd M Coarrow Kark (All 2) Schoped Mark (Sol) 2 cm Muck (All 2) Red Arant Material (Tz) Very Shallow Dark Surface (All 2) Very Shallow Dark Surface (All 2) Not Coarrow Kark (All 2) Not C	
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Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ Location: PL=Pore Lining, 1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ Location: PL=Pore Lining, 1 Histo: Dipletion (A2) Stinped Matrix (S5) 2 cm Muck (A10) Histo: Dipletion (A2) Stinped Matrix (S6) 2 cm Muck (A10) Hydrogen Sulface (A1) Depleted Matrix (F3) Very Shallow Dark Surface (A11) Very Shallow Dark Surface (F5) Sandy Mucky Mineral (S1) Depleted Matrix (F3) ¹ Indicators of hydrophytic vegetal wetland hydrology must be price pressions (F6) Indicators of hydrophytic vegetal wetland hydrology must be price pressions (F6) Netland Hydrology Indicators: Presence Muck (A10) Wetland Hydrology Indicators (2 or more marks) Startation (A3) Salt Cruct (B11) Water-Stained Leaves (B9) (except Matrix (B1) Drainage Patterns (B10) Startation (A3) Salt Cruct (B11) Presence of Reduced Iron (C4) Saturation Visible on Aeria High Water Table (A2) Hydrogen Suified Odor (C1) Saturation Visible on Aeria Saturation Visible on Ae	
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Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be proving strictive Layer (if present): Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problemat strictive Layer (if present): Type:	
Sandy Gleyed Matrix (S4)	on and
strictive Layer (if present): Type: Depth (inches): marks: BothUm httizon reacted positive to AAD Winn 12'' gf Soil Surface. DROLOGY ettand Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) Sturface Water (A1) Water Marks (B1) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sufface Reduced Iron (C4) Presence of Reduced Iron (C4) Shallow Aquitar (D3) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Starsely Vegetated Concave Surface (B8) eld Observations: Inface Present? Yes No Depth (inches): Depth (inches): MA Depth (inches): MA Startation	sent,
Type:	3.
Depth (inches): Hydric Soil Present? Yes marks: Bittom hhizon vtacted positive to AAD win 12" of soil Surface. Bottom hhizon vtacted positive to AAD win 12" of soil Surface. DROLOGY stand Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) MILRA 1, 2, 4A, and 4B) Saturation (A3) Sail Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sind Crust (B4) Presence of Reduced Iron (C4) If on Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Sparsely Vegetated Concave Surface (B8) Depth (inches): Bid Observations: Yes Irace Water Present? Yes No Depth (inches): Bid Observations: Yes Irace Water Present? Yes No Depth (inches): Bid Observations: Yes Irace Water Present? Yes No Depth (inches): Bid Observations: Yes	
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	No
	- 110
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
lemarks:	
- Bottom horizon reacted positive to AAD.	6 JT
- Fill from a djocot hills lope has observed metland canditions. We	and
ydrology inediately adjacet	

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oject/Site:	C	ity/County: Humboldt		_ Sampling Date:
pplicant/Owner: Paye			State: CA	
vestigator(s): Joseph Saler, Cindy Wilcox	s	ection, Township, Ra	nge:	
Indform (hillslope, terrace, etc.): <u>Gulch willsb</u>	11-		convex, none): NOC	
ibregion (LRR): A; MLRA 4B			Long: -124.135	631° Datum: WGS
oil Map Unit Name: Lepoil - Candymtn	complex	2-15% 5	NWI classi	fication: none
e climatic / hydrologic conditions on the site typical for t	this time of year	'? Yes 🔀 No _	(If no, explain in	Remarks.)
e Vegetation, Soil, or Hydrology	significantly d	isturbed? Are "	Normal Circumstances	" present? Yes 🔀 No _
e Vegetation, Soil, or Hydrology	_ naturally prob	lematic? (If ne	eded, explain any answ	vers in Remarks.)
UMMARY OF FINDINGS – Attach site ma	p showing s	sampling point le	ocations, transect	ts, important features, e
Hydrophytic Vegetation Present? Yes	No			N S
Hydric Soil Present? Yes	No	Is the Sampled within a Wetlar		No
Vetland Hydrology Present? Yes	No X			
Remarks: P-pXcaVated Shuttly UD fill	slope for	on thy,	2000X. 15'10)" and 36 in.
In Acarma Arguny op mis	stope		e e	Levotion difference
EGETATION – Use scientific names of pla	ants.			
204		Dominant Indicator	Dominance Test wo	rksheet:
Tree Stratum (Plot size: 30H)	<u>% Cover</u>	Species? Status	Number of Dominant	
Scampin Sempervicens	60	VNL	That Are OBL, FACW	
and the second second			Total Number of Dom Species Across All St	
			Percent of Dominant	1 = 01
Sapling/Shrub Stratum (Plot size: 5ft)	<u><u> </u></u>	= Total Cover 96	That Are OBL, FACW	
Rubus Ursinus	4	FACU	Prevalence Index we	orksheet:
Loncera involuctata vor tedebour	NI IS	V FAC	Total % Cover of	
				x 1 = x 2 =
*			states and the second sec	x 3 =
	19	9.5	040 40 40 80 041 3 40 000 40 80 020 0	x 4 =
Herp Stratum (Plot size: 54		= Total Cover	UPL species	x 5 =
lomera MRAZIESI	60	V FAC	Column Totals:	(A) (
Stochys a ju goides		OBL	Prevalence Inde	ex = B/A =
- Polystikaning drunitumor Atthyrium filix-tening cyclose	15	FACU	Hydrophytic Vegeta	
Alling triguetrum	$\frac{m}{1}$	- the		r Hydrophytic Vegetation
·			2 - Dominance To 2 - Prevalence In	
*			Contraction of the second seco	I Adaptations ¹ (Provide suppor
·			data in Remar	ks or on a separate sheet)
0			5 - Wetland Non-	
				ophytic Vegetation ¹ (Explain) oil and wetland hydrology mus
1	- 94	Total Cover 47		sturbed or problematic.
Voody Vine Stratum (Plot size:)		Total Cover 18.5		
			Hydrophytic	
()*	<u> </u>	Tatal O	Vegetation Present? Y	/es 🔀 No
6 Bare Ground in Herb Stratum		Total Cover		

SOIL	DIL
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Profile Description: (Description: (Description to the depth addot of document the indicator or confirm the absence of Indicators.) Profile Description: (Description: (Description: %) Profile Description: %) Profile Description: % Profile Descripti	SOIL		Sampling Point: TP 5 Consulting Engine
indexes Color (moist) % Twee Loc Tatutue Remarks O-S IO YR, 3/I IO IO Situe Ion +C, Apla +Chull bits Image: Concentration Decretion, RN-Reduced Matrix, CS-Covered or Coaled Sand Grains	Profile Description: (Describe to the de	epth needed to document the indicator or confirm	n the absence of indicators.)
0-5 10 Y R. 3/1 100 5-224 10 Y R. 3/1 100 5-24 10 Y R. 3/1 100 10 Y R. 3/1 55 100 11 Yape: 0-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *1.coation: PL=Pore Lining, M=Matrix, reduced Matrix, CS=Covered or Coated Sand Grains. 11 Yape: 0-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *1.coation: PL=Pore Lining, M=Matrix, Rd=1 11 Histo Epipeon (A2) Starpa Matrix, Rd=1 Indicators for Problematic Hydric Solfs': 12 Histos (A1) Sandy Redew (SS)			
5-24 OVA 4/4 SS Intervention of the second se	a set of the	<u>Color (moist)</u> <u>%</u> <u>Type'</u> Loc ²	Texture Remarks
Invite Grig 35 Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered of Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hatasol (A1) Sandy Redux (S5)			
Type: C-Cancentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix, Type: Tradicators for Problematic Hydric Soli(s): Histocol (A1) Sandy Redox (S5) 2 cm Muk (A10) Histocol (A2) Stripped Matrix (S6) 2 cm Muk (A10) Depleted Below Dark Surface (A11) Depleted Matrix (F2)	5-24 104R 4/2 65	- / / /	SCL Lorge aphattchurkstchord
Type: C-Cancentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix, Type: Tradicators for Problematic Hydric Soli(s): Histocol (A1) Sandy Redox (S5) 2 cm Muk (A10) Histocol (A2) Stripped Matrix (S6) 2 cm Muk (A10) Depleted Below Dark Surface (A11) Depleted Matrix (F2)	- INVR 618 35		- mixed fill
tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histos Eipedon (A2) Stripped Matrix (S6)	10/10-22		
tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histos Eipedon (A2) Stripped Matrix (S6)			· · · · · · · · · · · · · · · · · · ·
tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histos Eipedon (A2) Stripped Matrix (S6)			
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tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histos Eipedon (A2) Stripped Matrix (S6)		-	
tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histos Eipedon (A2) Stripped Matrix (S6)	······································		
tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: for Problematic Hydric Soils*: Histos Eippedon (A2) Stripped Matrix (S6)	VI VI	· · · · · · · · · · · · · · · · · · ·	2
			rains. ² Location: PL=Pore Lining, M=Matrix.
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□ Oppleted Below Dark Surface (A11) □ Depleted Matrix (F3) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Micky Mineral (S1) □ Depleted Dark Surface (F7) unless disturbed or problematic. estrictive Layer (if present): Type:			
Thick Dark Surface (A12)			
			³ Indicators of hydrophytic vegetation and
estrictive Layer (if present):			
Type:			1
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emarks: MXedHill from adjacett slope. Notredox features /DROLOGY /etiand Hydrology Indicators: imary indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)			Hydric Soil Present? Yes No X
MX&A.f.II. from adjacett slope. Notvedox features VDROLOGY Vetiand Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)			
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Water Marks (B1)	_ •		
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Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Frost-Heave Hummocks (D7)Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present? YesNoDepth (inches):A Water Table Present? YesNoDepth (inches):A Wetland Hydrology Present? YesNo Depth (inches):A Wetland Hydrology Present? YesNo Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits (B5)		
	Surface Soil Cracks (B6)		
ield Observations: iurface Water Present? Yes No Depth (inches): NA Vater Table Present? Yes No Depth (inches): NA vater Table Present? Yes No Depth (inches): NA vaturation Present? Yes No Depth (inches): NA includes capillary fringe) No Depth (inches): NA vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Inundation Visible on Aerial Imagery	(B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Surface Water Present? Yes No Depth (inches): NA Vater Table Present? Yes No Depth (inches): NA Saturation Present? Yes No Depth (inches): NA Includes capillary fringe) No Depth (inches): NA Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Image: Control of the stream gauge of	Sparsely Vegetated Concave Surface	e (B8)	
Vater Table Present? Yes No Depth (inches): WALL Water Table Present? Yes Depth (inches): WALL Wetland Hydrology Present? Yes No Depth (inches): WALL Wetland Hydrology Present? Yes No No Concludes capillary fringe) Wetland Hydrology Present? Yes No Concludes capillary fringe) Wetland Hydrology Present? Yes No Concludes capillary fringe) Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		N/IN	
Caturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present? Yes	_ No <u>></u> Depth (inches): <u>IV /+</u>	S. Contraction
includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Vater Table Present? Yes	No 🔀 Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes	_ No X Depth (inches): N/A Wet	tland Hydrology Present? Yes No X
Remarks:	includes capillary fringe)		if available:
	Describe Recorded Data (stream gauge,	monitoring well, aerial photos, previous inspections)	, ii available:
	Remarks:		
Dry well dranked till vope.		(1) $5/20$	
	Dry well draned	TIN Uppe.	
		V.	
	- 10		

14.

Iting Engineers WETLAND DETERMINATION	N DATA FORM - W	Vestern Mou	ntains, Valleys, a	nd Coast Region
eologists, Inc. roject/Site: JJ Rentals	City/Co	untur Humboldt		Sampling Date: 11/1/2
pplicant/Owner: Paye		Junty.		Sampling Point: TP_C
nvestigator(s): Joseph Saler, Cindy Wilcox	Saction	n, Township, Rar		
andform (hillslope, terrace, etc.):			convex, none): Nav	Slope (%): 25
ubregion (LRR): A; MLRA 4B	1 40 70		Long: - 24.13	35865 Datum: W65
oil Map Unit Name: Lepoil - Candym				
re climatic / hydrologic conditions on the site typical				X
re Vegetation, Soil, or Hydrology			Normal Circumstances	
re Vegetation, Soil, or Hydrology			eded, explain any ans	
UMMARY OF FINDINGS – Attach site	map showing sam	pling point lo	ocations, transed	ts, important features, e
Hydrophytic Vegetation Present? Yes	No			1
Hydric Soil Present? Yes		Is the Sampled within a Wetlan		NoX
Remarks: TD AV columb A		Valal	(707)	
TP excavated upslope	from Wetland	0 9'3"-	trom 11). (arex obnupta down
and is a transitional location.	havetle no h	udico, bar	1	Sale of the second second second second
EGETATION – Use scientific names of		1.01		
		inant Indicator	Dominance Test we	orksheet:
Tree Stratum (Plot size: <u>30 ft</u>)	% Cover Spec	ties? Status	Number of Dominan	
1. Allaus Mbra 2. Sieguoig sonfervirens		TAC	That Are OBL, FAC	N, or FAC: (A)
			Total Number of Dor	
4			Species Across All S	Strata: (B)
	90 = Tota	al Cover 45	Percent of Dominant That Are OBL, FAC	
Sapling/Shrub Stratum (Plot size: 54		10	Prevalence Index w	
1. Samblicus racemosa	<u>/</u>	FACU		f: Multiply by:
2			OBL species	x 1 =
3			FACW species	x 2 =
5.			FAC species	x 3 =
	2_ = Tot	al Cover		x 4 =
Herb Stratum (Plot size: 54+)	50 4	1 Acl	UPL species	x 5 =
LOCENUDIMETA	$-\frac{50}{40}$	- Chi	Column Totals:	(A) (I
2. Stathiopteris spicent 3. Pelastichum, munitum	15	FACIL		lex = B/A =
Alkyrium filix -tening variate	50run 3	FAC	Hydrophytic Veget	
5. The part of the			\overline{X}_2 - Dominance	or Hydrophytic Vegetation
5			3 - Prevalence I	
7			4 - Morphologic	al Adaptations ¹ (Provide support
B				arks or on a separate sheet)
9				n-Vascular Plants ¹
10				drophytic Vegetation ¹ (Explain) soil and wetland hydrology must
11		al Cover 54	be present, unless d	isturbed or problematic.
Woody Vine Stratum (Plot size: 544)		LIN		
1. Hedera helix		- FACU	Hydrophytic	No. S
2,			Vegetation Present?	Yes No
% Bare Ground in Herb Stratum 57.*	= Tota	al Cover	110301111	
Remarks:		1.1.	N I D	C. 111.
4111-	Note. D	tratin w	10th Osthan	5% total cover or
1 11+425	1211.05910405	The second s	and the second	

US Army Corps of Engineers

SOIL

Sampling Point: TPG Consulting Engineers

Profile Description: (Describe to the dep	h needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	Taulura
(inches) Color (moist) %	Color (moist) Type ¹ _Loc ²	Texture Remarks
U-7 1048212 100	IGNO CIT OD C	SICE WATIVE SOILS
7-24+ 54 5/ 40	104K 6/8 30 C M	LS too deptor 55
		11.2%
	Reduced Matrix, CS=Covered or Coated Sand Gra	ains. ² Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	³ ladicaters of hudrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (ST) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	(, , , , , , , , , , , , , , , ,	
Туре:	V.	
Depth (inches)	<u> </u>	Hydric Soil Present? Yes 📈 No
Remarks:		
Notivesoils present		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required		Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres along Living Roo	
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6	
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A)	
Inundation Visible on Aerial Imagery (B		Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (58)	
Field Observations:		
	No Depth (inches): N/9	X
	No Depth (inches):	X
	No A Depth (inches): N/A Wetla	and Hydrology Present? Yes No 🔨
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previous inspections),	if available:
	· · · · · · · · · · · · · · · · · · ·	
Remarks:	An an an an An	
A. dan d	I ANAL	
UN STOPE drave wet	land. Well drained.	

ologists, Inc. oject/Site:	City/(County: Humboldt		_ Sampling Date:	12
oplicant/Owner: Paye			State: CA	Sampling Point:	Z
vestigator(s): Joseph Saler, Cindy Wilcox			nge:	10 02	
Indform (hillslope, terrace, etc.): Gulch in uplif	A mothe miles		convex, none): <u>Non</u>	ی Slope (%):	2
ubregion (LRR): A; MLRA 4B	40.7	191854	-129.13	5898 Datum: W(5
bil Map Unit Name: Lepsil-Candy mt	n 2-150h	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			50
			NWI classi		
e climatic / hydrologic conditions on the site typical for					
e Vegetation, Soil, or Hydrology			Normal Circumstances	"present? Yes 🔼 No	o
e Vegetation, Soil, or Hydrology	naturally problem	atic? (If ne	eded, explain any answ	vers in Remarks.)	
UMMARY OF FINDINGS – Attach site m	ap showing sar	npling point k	ocations, transect	s, important feature	s, e
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes		Is the Sampled	Area	1	
Vetland Hydrology Present? Yes	No	within a Wetlan	ıd? Yes 🟒	▲ No	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		pill f	F in a sector	ADDER EL	
Remarks:	Colicia 04	sylich. 1	IENING MOTE	er approx. 5H o	wa
		U	V		
EGETATION – Use scientific names of p	plants.				
200	Absolute Dor	minant Indicator	Dominance Test wo	rksheet:	
ree Stratum (Plot size: 30 ff)	% Cover Spe	ecies? Status	Number of Dominant	Species 🎗	
Alaus Culera	- 42-1	ZHO	That Are OBL, FACW	/, or FAC:	(A)
			Total Number of Dom	inant /	
·			Species Across All St		(B)
·,			Percent of Dominant	Species 151	
apling/Shrub Stratum (Plot size: 57)	- <u>4</u> 3_ = To	otal Cover	That Are OBL, FACW	, or FAC:/	(A/
Samplices racenosa	10 2	FACI	Prevalence Index we	orksheet:	
·		HMM	Total % Cover of	Multiply by:	_::
***			OBL species	x 1 =	
**************************************			FACW species	x 2 =	-
			FAC species	x 3 =	-
	10		FACU species	x 4 =	-
~(1					
TIL	_ <u> U</u> = Tc	otal Cover		x 5 =	
Lysichitan (Mericonus	<u> </u>			x 5 = (A)	
CARENDO ANOTA	<u>_10</u> =т. <u>50</u>		Column Totals:	(A)	_ (E
erb Stratum, (Plot size: 544) Lysichten (mericanus Carex, obawata Stattienerus sacat	<u>10</u> =rc <u>50</u> <u>18</u>	OBL FAC	Column Totals:	(A)	_ (E
Lerb Stratum (Plot size: 544) Lysichten (mericenus Corex, ob awata Stattieres sacat	50 -		Column Totals: Prevalence Inde Hydrophytic Vegeta	(A) ex = B/A = tion Indicators:	_ (E
lerb Stratum, (Plot size: 544). Lysichitan (mericanus) Carexhobawata Stattionals spicat Athyaina filix tendina ^{va} oxcla	50 -	OBL FAC FAC	Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for	(A) ex = B/A = tion Indicators: r Hydrophytic Vegetation	_ (E
lerb Stratum, (Plot size: 544) Lysichton (mericonus Conexido nunta Struthiopeols spicet Athyrium filix fendina ^{va} cyclo	50 v 18 v	OBL FAC FAC	Column Totals: Prevalence Inde Hydrophytic Vegeta	(A)	_ (E
lerb Stratum, (Plot size: 544) Lysichitan (Imericanus Carexhob ny pta Struttio ports spicat Athycium filix fornina ^{va} cyclo	50 V 18 V 18 V		Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for 2 - Dominance To 3 - Prevalence In 4 - Morphologica	(A)	(E
terb Stratum, (Plot size: 544) Lysichtan (mericanus Carex, ob whta Struthio ports spicat Athycium filix fornina ^{va} cyclo	50 V 18 V 18 V		Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for 2 - Dominance To 3 - Prevalence In 4 - Morphologica data in Reman	(A)	_ (E
lerb Stratum, (Plot size: 544) Lysichitan (mericanus Carex, obnycha Struthionals spicat Athycium filix terrina ^{va} cycla	50 V 50 V 18 V 50 V		Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for 2 - Dominance To 3 - Prevalence In 4 - Morphologica data in Reman 5 - Wetland Non-	(A)	(E
terb Stratum (Plot size: 544) Lysichtan (mericanus Carexiab nutra Struttionells Spicet Athycium filix ternina ^{va} cycle	50 v 18 v 18 v		Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for 2 - Dominance To 3 - Prevalence In 4 - Morphologica data in Reman 5 - Wetland Non-	(A)	(E
<u>terb Stratum</u> (Plot size: <u>544</u>) <u>Lysichitan</u> (<u>Imericanus</u>) <u>Carexhob winta</u> <u>Struttionals Spicat</u> <u>Athyaium</u> filix ternina ^{va} opcla	50 v 18 v 18 v		Column Totals: Prevalence Inde Hydrophytic Vegeta 1 - Rapid Test for 2 - Dominance To 3 - Prevalence In 4 - Morphologica data in Remar 5 - Wetland Non- Problematic Hydr ¹ Indicators of hydric s	(A)	(E

2

*

itter

= Total Cover

Hydrophytic Vegetation Present?

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2

Bare

% Bare Ground in Herb Stratum 30 Remarks:

501

Minera

Yes

S_____No____

SOIL

Sampling Point: TP7 & Geologists, Inc.

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Frome Description. (Describe to the dep	th needed to document the indicator or confirm	
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
0-11 10 YR 2/1 100	1 1 1	CL Notmessils
11-24 2 549/1 01	10424/670 C M	IC
II-CT LITIOL AU	1012 45 20 0	
		·
i	•	-
		1. T
· ·		
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Coated Sand Gr	ains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to al		
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	X Other (Explain in Remarks) 📌
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	· · · · · · · · · · · · · · · · · · ·	1.5
Туре:		
Depth (inches):		Hydric Soil Present? Yes <u>No</u> No
Remarks:	Nr. (a) Is	
* 11-24 AAD reactio	n at 11-12" Variable	+ransition between 11- and H2
A12 + between 2.5 and 3	s, very close.	
Sectores and the sector sector sector		
HYDROLOGY		
Wetland Hydrology Indicators:		
	N	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	N	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	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 Roc	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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)	 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 Roc Presence of Reduced Iron (C4) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) N Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Sparsely Vegetated Concave Surface	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) N Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Sparsely Vegetated Concave Surface Field Observations:	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) N Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present?	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) (B8) No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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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) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Saturation Present? Yes	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A Store (Explain in Remarks) (B8) No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) ¹ / ₂ Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes <u>No</u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Cincludes capillary fringe) Describe Recorded Data (stream gauge, maintering)	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 Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A State or Stressed Plants (D1) (LRR A The stunted or Stressed Plants (D1) (LRR A Depth (inches): NA No Depth (inches) (inches) (inches) (inches) (inches) (inches) (inches) (inches) (inc	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Sts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No if available:
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& Geologists, Inc. Project/Site: JJ Rentals		City/County: Humboldt		Sampling Date: 11
Applicant/Owner: Paye		ony: o o unity :	State: CA	Sampling Point:
Investigator(s): Joseph Saler, Cindy Wilcox		Section, Township, Ra	8 3 24	
Landform (hillslope, terrace, etc.): Guld Hills	De	1 may 1	convex, none): NONO	Slope (%
Subregion (LRR): A; MLRA 4B	Lat: 40	10 10 - 10	Long: -124.135	5415 Datum: W
	nth con			cation: none
Are climatic / hydrologic conditions on the site typical for			(If no, explain in I	
Are Vegetation, Soil, or Hydrology	_		Normal Circumstances"	\sim
Are Vegetation <u> </u>	naturally pro		eded, explain any answ	
SUMMARY OF FINDINGS – Attach site ma				
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes	No	is the Sampled	Area 🔪	T
Wetland Hydrology Present? Yes X	No	within a Wetlar	nd? Yes 🚄	No
Remarks:	elland a	n lils de	* local	zed see w
1 Pexcavated with seep w	GIIOVIO	at monope.	at cal	and Free is
	1		101 1011	ected by veg
VEGETATION – Use scientific names of pl	Absolute	Dominant Indiantor	Deminance Testwee	kahaati
Tree Stratum (Plot size: 30 ff)		Dominant Indicator Species? Status	Dominance Test wor Number of Dominant S	A
1. Sequoia Jupervirens	50	- G-NL	That Are OBL, FACW,	
2. history of bighter		Reticts	Total Number of Domi	
3. Noriginal Sector		Ablan Dela	Species Across All Str	ata:
Current Cu	50	= Total Cover	Percent of Dominant S	
Sapling/Shrub Stratum (Plot size:)			That Are OBL, FACW, Prevalence Index wo	
1.			Total % Cover of:	Multiply by:
2			OBL species	x 1 = 0
4			FACW species	x 2 =
5		1	FAC species	x 3 =
54		= Total Cover	FACU species	x4= 140
Herb Stratum (Plot size: 24+) 1. Athonism filix-tening vor geboorw	n 20	I FAC	UPL species	$x 5 = \frac{750}{468}$
2. Partichum Muntum	20	THU		412
3.			Prevalence Index Hydrophytic Vegetati	
4				Hydrophytic Vegetation
5•			2 - Dominance Te	
6			3 - Prevalence Inc	ex is ≤3.0 ¹
7			4 - Morphological	Adaptations ¹ (Provide su s or on a separate sheet
8			5 - Wetland Non-	
10			2	phytic Vegetation ¹ (Expla
11				il and wetland hydrology
What Was States The State	60	= Total Cover	be present, unless dist	urbed or problematic.
Wopdy Vine Stratum (Plot size: 5++)	2	FACU		
2.			Hydrophytic Vegetation	\checkmark
00%	2	= Total Cover		es No 🔼
% Bare Ground in Herb Stratum				1.1
Remarks: - Vegetati	on, is p	roblematic, Sp	nell wetland s	epp conditions , c
* DUT + LITTER. YX theme	N NO	ized. Plant L	and nance influ	renced by ste
	11 1000	A A	millo por all	LALAN CO

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S.

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SOIL

Sampling Point: TP8 & Geologists, Inc.

freezense and the second s	needed to document the indicator or confirm	the absence of maleators./
Depth Matrix	Redox Features	Tautura
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	SIL NAIVE Soils
0-22 104R312 75 5	VR J2 10 0 M	SIL IVAIVE SOID
/	YR3/4 15 C M	
22-24+2.54 4/2 60 10	NR4/6 40 C M	LS
		······································
	······································	· · _ · _ · _ · · · · · · · ·
¹ Type: C=Concentration, D=Depletion, RM=Re	educed Matrix, CS=Covered or Coated Sand Gra	ains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	_ Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	_ Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and
	Redox Dark Surface (F6) Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		
Depth (inches):	-	Hydric Soil Present? Yes 📈 No
Seepare avanage a	whill slove x= a a - d when	3" of honzon
s-page orainage way o	n hillslope x=a, a-d wlin	V
100 100 100 100 100 100 100 100 100 100		
- * A		
HYDROLOGY	2	
Wetland Hydrology Indicators:		
		Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one required; c</u> Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	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 Roor	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of	 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 Roo Presence of Reduced Iron (C4) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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)	 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 Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of 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)	 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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of a 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)	 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 Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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ect/Site: JJ Rentals	City/County: Humbo		_ Sampling Date:
icant/Owner: Paye		State: CA	_ Sampling Point: TP 9
stigator(s): Joseph Saler, Cindy Wilcox		Range:	100 - C
form (hillslope, terrace, etc.): <u>Guich hillslo</u>	De Local relief (concav	e, convex, none): None	
region (LRR); A; MLRA 4B	Lat: 40. 441681	Long: -124.13	
Map Unit Name:	the complex 2-150	NWI class	ification: none
climatic / hydrologic conditions on the site typical for	this time of year? Yes 🔀 No	o (If no, explain in	Remarks.)
Vegetation, Soil, or Hydrology	_ significantly disturbed? Ar	re "Normal Circumstances	" present? Yes X No
Vegetation, Soil X, or Hydrology	_ naturally problematic? (If	needed, explain any ans	wers in Remarks.)
MMARY OF FINDINGS – Attach site ma	p showing sampling poin	t locations, transec	ts, important features, etc.
drophytic Vegetation Present? Yes	NoX		
dric Soil Present? Yes	No Is the Samp		\mathbf{X}
etland Hydrology Present? Yes	No within a Wet	land? Yes_	No <u></u>
marks: TP OXCAVATED N AFT FON	TPRin SPAD. 1	pland conditions	dow tstepp
	1.0 mooder of	pinto contentos	101 state
GETATION – Use scientific names of pla	ants		
	Absolute Dominant Indicato	Dominance Test wo	orksheet:
e Stratum (Plot size: 30 ft)	% Cover Species? Status		
Sequoia sempervirous Printu ceraitera		That Are OBL, FACV	V, or FAC: (A)
PLUMU CERDITERA		Total Number of Don	
		Species Across All S	
F(I	70 = Total Cover.35	Percent of Dominant That Are OBL, FACV	
pling/Shrub Stratum (Plot size: 54	a da	Prevalence Index w	
Sanbucus racenosa	_ the THE	Total % Cover o	f: Multiply by:
		OBL species	x 1 =
		104267 - 104267 - 10426	x 2 =
			x 3 = x 4 =
rb Stratum (Plot size: 5ft)	= Total Cover		x 4 = x 5 =
2) stich Ma. Muitum	50 × fAG		(A) (B)
Affreing filix-foring von orduo	NUN 15 V FAC	4	
		Hydrophytic Vegeta	ex = B/A =
			or Hydrophytic Vegetation
		_ 2 - Dominance T	est is >50%
		_ 3 - Prevalence Ir	ndex is ≤3.0 ¹
		4 - Morphologica	al Adaptations ¹ (Provide supporting Irks or on a separate sheet)
		- Cata in Keina 5 - Wetland Non	
			rophytic Vegetation ¹ (Explain)
			soil and wetland hydrology must
5ft	65_= Total Cover 32.1	be present, unless di	sturbed or problematic.
ody Vine Stratum (Plot size: 577)	2 FAri	1 C	Ň.
HARIA HEIN		4 Hydrophytic Vegetation	\vee
Bare Ground in Herb Stratum 50*	2 = Total Cover	Present?	Yes No 🔼 🛛 🛛
		10 Jan 10	
Bare Ground in Herb Stratum marks: Litter town from Statubia			

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

SOIL

Sampling Point: D Consulting Engineers

			oth needed to docum				the absence	of indicators.
Depth	Matrix			x Features			14-0-001211-0-00	
(inches)	Color (moist)	t att	Color (moist)	_%	Type'		Texture	Remarks
	DTR		2 South	20	D KB	27/2	SEL	Drange Have prover
0-3	104R2/1	100		-	-			forest dutt + mineral
2-244	7.5TR 3/2	94	2.548418	6	CP	Lam	SL	Brokenglass presen
5-21	1.71N 12		2.214.10	6	<u> </u>		2	brokenguiss presen
	properties D=Den	letion RM	Reduced Matrix, CS	S=Covered	or Coated S	Sand Gr	ains ² l c	cation: PL=Pore Lining, M=Matrix.
and the second se			LRRs, unless other					ors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S		,			m Muck (A10)
	pipedon (A2)		Stripped Matrix					d Parent Material (TF2)
Black His			Loamy Mucky N		(excent M			y Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed I		(except mi			ner (Explain in Remarks)
	Below Dark Surface	ο (Δ11)	Depleted Matrix				0	
<u> </u>	ark Surface (A12)		X Redox Dark Su				³ Indicat	ors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark \$	• •	n			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	-	/			ss disturbed or problematic.
	_ayer (if present):						T	
	Layer (il present).							× /
Туре:								
Depth (inc	ches):						Hydric So	l Present? Yes 📈 No
Remarks:	1 4-1,		(11)					
Trasit	ninal soils	ano	wfrom hilsi	de, 5	SP.			
Cil				1	A	11.	e	
- til (00000000	VIdenc	ed by bso	ska 9	less +	abbs	12	
	A CONTRACTOR NO	-101-						
HYDROLO	GY			\sim				
Wotland Hyp								
www.uanu nyu	drology Indicators:	<u>(</u>						
-			ed: check all that appl	v)			Sec	ondary Indicators (2 or more required)
Primary Indic	cators (minimum of o		ed; check all that appl			opt		ondary Indicators (2 or more required)
Primary Indic	cators (minimum of o Water (A1)		Water-Sta	ined Leave	s (B9) (exce	ept		Water-Stained Leaves (B9) (MLRA 1,
Primary Indic	cators (minimum of o Water (A1) Iter Table (A2)		Water-Stai MLRA	ined Leave 1, 2, 4A, a		ept		Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Primary Indic Surface V High Wa Saturatio	cators (minimum of o Water (A1) Iter Table (A2) on (A3)		Water-Stai MLRA Salt Crust	ined Leave 1, 2, 4A, a (B11)	nd 4B)	ept	_	Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10)
Primary Indic Surface V High Wa Saturatio Water M	cators (minimum of o Water (A1) hter Table (A2) on (A3) larks (B1)		Water-Stai MLRA Salt Crust Aquatic Im	ined Leave 1, 2, 4A, a (B11) vertebrates	nd 4B) (B13)	ept	_	Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indic Surface V High Wa Saturatio Water M	cators (minimum of o Water (A1) Iter Table (A2) on (A3)		Water-Stai MLRA Salt Crust Aquatic In Hydrogen	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od	nd 4B) (B13) or (C1)	~		Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Primary Indic Surface V High Wa Saturatio Water M Sedimen	cators (minimum of o Water (A1) hter Table (A2) on (A3) larks (B1)		Water-Stai MLRA Salt Crust Aquatic In Hydrogen	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od	nd 4B) (B13) or (C1)	~		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep	cators (minimum of o Water (A1) hter Table (A2) on (A3) larks (B1) ht Deposits (B2)		Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od	nd 4B) (B13) or (C1) es along Liv	~		Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	cators (minimum of o Water (A1) Iter Table (A2) on (A3) Iarks (B1) Int Deposits (B2) posits (B3)		Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced	nd 4B) (B13) or (C1) es along Liv	ing Roc		Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	cators (minimum of o Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio	nd 4B) (B13) or (C1) es along Liv f Iron (C4) n in Tilled S	ving Roc Soils (Cf		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indice Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S	cators (minimum of o Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	ne require	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or	ned Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio Stressed I	(B13) (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1)	ving Roc Soils (Cf		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio	cators (minimum of o Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I	me require	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp	ned Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio Stressed I	(B13) (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1)	ving Roc Soils (Cf		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely	cators (minimum of o Water (A1) Iter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave	me require	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp	ned Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio Stressed I	(B13) (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1)	ving Roc Soils (Cf		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Surface Vate Water Table Saturation Pr (includes cap	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp (B8) No Depth (in Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio Stressed I blain in Rer ches): N ches): N ches): N	(B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1) in narks)	ving Roo Soils (C6 (LRR A		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Surface Vate Water Table Saturation Pr (includes cap	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp (B8) No Depth (in No Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio Stressed I blain in Rer ches): N ches): N ches): N	(B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1) in narks)	ving Roo Soils (C6 (LRR A		Water-Stained Leaves (B9) (MLRA 1 , 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Field Observ Surface Water Vater Table Saturation Pr (includes cap Describe Rec	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es gauge, m	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37)Other (Exp (B8) NoDepth (in NoDepth (in Depth (in Depth (in Depth (in Depth (in Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio · Stressed I blain in Rer ches):	(B13) or (C1) es along Liv f Iron (C4) n in Tilled S Plants (D1) marks)	Ving Roc Soils (C6 (LRR A Wetl ctions),	and Hydrolo	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Surface Vate Water Table Saturation Pr (includes cap	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es gauge, m	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37)Other (Exp (B8) NoDepth (in NoDepth (in Depth (in Depth (in Depth (in Depth (in Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio · Stressed I blain in Rer ches):	(B13) or (C1) es along Liv f Iron (C4) n in Tilled S Plants (D1) marks)	Ving Roc Soils (C6 (LRR A Wetl ctions),	and Hydrolo	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Surface V Surface Vate Water Table Saturation Pr (includes cap Describe Rec	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es gauge, m	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37)Other (Exp (B8) NoDepth (in NoDepth (in Depth (in Depth (in Depth (in Depth (in Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio · Stressed I blain in Rer ches):	(B13) or (C1) es along Liv f Iron (C4) n in Tilled S Plants (D1) marks)	Ving Roc Soils (C6 (LRR A Wetl ctions),	and Hydrolo	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indic Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface V Surface Vate Water Table Saturation Pr (includes cap Describe Rec	cators (minimum of o Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y resent? Y pillary fringe)	magery (E e Surface es es gauge, m	Water-Stai MLRA Salt Crust Aquatic Im Hydrogen Oxidized F Presence Recent Iro Stunted or 37)Other (Exp (B8) NoDepth (in NoDepth (in Depth (in Depth (in Depth (in Depth (in Depth (in	ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced n Reductio · Stressed I blain in Rer ches):	(B13) or (C1) es along Liv f Iron (C4) n in Tilled S Plants (D1) marks)	Ving Roc Soils (C6 (LRR A Wetl ctions),	and Hydrolo	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

oject/Site: JJ Rentals	City/	County: Humboldt		Sampling Date:
oplicant/Owner: Paye		5.	State: CA	Sampling Point: TP 0
vestigator(s): Joseph Saler, Cindy Wilcox	Sect	ion, Township, Rang	ge:	
andform (hillslope, terrace, etc.): <u>Guich MIS</u>	OPP Log	al relief (concave, co	onvex, none):0	Slope (%):60
ubregion (LRR): <u>A; MLRA 4B</u>	Lat: 40,7	91461	Long: -124.13	5338 Datum: W6
bil Map Unit Name:	into complex	c 2-150/0 5	NWI clas	sification: none
e climatic / hydrologic conditions on the site typica				
e Vegetation, Soil, or Hydrology _	significantly distu	rbed? Are "N	lormal Circumstance	s" present? Yes X No
e Vegetation, Soil, or Hydrology	naturally problem	natic? (If nee	ded, explain any an	swers in Remarks.)
UMMARY OF FINDINGS – Attach site	map showing sa	mpling point lo	cations, transe	cts, important features, e
Hydrophytic Vegetation Present? Yes			2	*
Hydric Soil Present? Yes 🗙	No	Is the Sampled A		X .
Vetland Hydrology Present? Yes	No	within a Wetland	1? Yes	
TP excalated at edge of	hilblope see), ★	Vecterian O	omposition does not
Ir acada a cop of	morps 201	i r	pleitsmall	localized seep.
EGETATION – Use scientific names o	f plants.		CHECIDINA,	nucline co so p
- 6	·	minant Indicator	Dominance Test w	orksheet:
Free Stratum (Plot size: 30		ecies? Status	Number of Dominar	0
Sequoia Stupervires	<u> </u>	- NL	That Are OBL, FAC	W, or FAC: (A)
Alous rubra		N	Total Number of Do	
Altho I Mora		V The	Species Across All	Strata: (B)
	П5 =т	otal Cover 575	Percent of Dominar That Are OBL, FAC	
Sapling/Shrub Stratum (Plot size:)	23	Prevalence Index	
		· · ·	Total % Cover	of: Multiply by:
2			OBL species	x1=
ku:			FACW species	x2=
			FAC species	$x^{3} = \frac{1}{60}$
5A	= T	otal Cover I	FACU species	$x_{5} = \frac{50}{450}$
Herb Stratum (Plot size: 377) Vol.	CE MARIN		Column Totals:	(A) (B)
Strathioptor's spicent	1	FAC		470
Stranger Shirt		- sipe	Prevalence In Hydrophytic Veget	
ky				or Hydrophytic Vegetation
i			2 - Dominance	
			3 - Prevalence	Index is ≤3.0 ¹
·			4 - Morphologic	al Adaptations ¹ (Provide support
			5 - Wetland No	arks or on a separate sheet)
•				drophytic Vegetation ¹ (Explain)
1.				soil and wetland hydrology must
	<u>33</u> = To			listurbed or problematic.
Vopdy Vine Stratum (Plot size: 5ft)	15	FAUL		
. Hedara helix			Hydrophytic Vegetation	× 2
-0:14	15 - 17	otal Cover	Present?	Yes No 🗶
6 Bare Ground in Herb Stratum 70 / F				

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SOIL

The second

Sampling Point: TP 10 & Geologists, Inc.

Profile Description: (Describe to the depth	needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	-
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
0-10.5 0YR3/2 100		SIL
10,5-24045/1 92 -	25486/8 8 C PL+M	6
	· · · · · · · · · · · · · · · · · · ·	
<u> </u>		
	Deduced Metric CS-Caused or Castad Sand Cra	ins. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L	Reduced Matrix, CS=Covered or Coated Sand Gra	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	K Loamy Gleyed Matrix (F2)	V Other (Explain in Remarks) 🕌
Z Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре:	-	
Depth (inches):	<u> </u>	Hydric Soil Present? Yes Y No
* al-a, d runchim @ 10.5	to12" clay layer	
HYDROLOGY		
Wetland Hydrology Indicators:		
		Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	 Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	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 Root	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	 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 Root Presence of Reduced Iron (C4) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
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vologists, Inc. oject/Site:JJ Rentals	City/C	County: Humboldt	t	Sampling Date:	
oplicant/Owner: Paye			State: CA	_ Sampling Point: TP	
vestigator(s): Joseph Saler, Cindy Wilcox	Secti	on, Township, Ra	nge:		
andform (hillslope, terrace, etc.): Gulch hills	Jope Loca	I relief (concave,	convex, none):	U Slope (%): 10	
ubregion (LRR): A; MLRA 4B	Lat: <u>40, 7</u>	91480	_ Long:4.13	5320 Datum: W6S	
bil Map Unit Name: <u>Lepoil-Candy m</u>	to complex	2-15% 51	NWI classi	fication: none	
e climatic / hydrologic conditions on the site typical t	for this time of year? Y	/es 📉 No _	(If no, explain in	Remarks.)	
e Vegetation, Soil, or Hydrology	significantly distur	rbed? Are	"Normal Circumstances	" present? Yes 🗶 No	
e Vegetation, Soil, or Hydrology	naturally problem	atic? (If ne	eeded, explain any ansv	vers in Remarks.)	
UMMARY OF FINDINGS – Attach site r	nap showing san	nolina point l	ocations. transec	ts, important features, e	
Hydrophytic Vegetation Present? Yes					
	No No Is the Sampled			\mathbf{X}	
Netland Hydrology Present? Yes		within a Wetlar	nd? Yes	No	
Remarks: TP 11 excavated approx	· Gin from	TP 10.	Representation	re of upland	
Slope Conditions.	Contraction	S. 1 - 1	indrig and in	and driver	
EGETATION – Use scientific names of	olante				
		ninant Indicator	Dominance Test wo	rkshoot:	
Tree Stratum (Plot size; 30 ft)	% Cover Spe		Number of Dominant	4	
HUMUS IAUrocerasus	- 50 -	NE	That Are OBL, FACW	/, or FAC: (A)	
2. sequicia semperviras		V NL	Total Number of Dom	inant 🗲	
3.			Species Across All St	rata: (B)	
Te		tal Cover	Percent of Dominant That Are OBL, FACW		
Sapling/Shrub Stratum (Plot size:)		22	Prevalence Index we		
				: Multiply by:	
			OBL species	x 1 =	
)	<u> </u>		FACW species	x 2 =	
				x 3 =	
Herb Stratum (Plot size: 54	= To	otal Cover		× 4 =	
Polystichima (Minitum)	72.	/ FAU		x 5 = (E	
Atkyoum filix - towna vicyclos	30 1	Z FAC			
in the this tour of the			Prevalence Inde	ex = B/A =	
· · · · · · · · · · · · · · · · · · ·				r Hydrophytic Vegetation	
			2 - Dominance T		
)			3 - Prevalence In		
·			4 - Morphologica	Adaptations ¹ (Provide support	
···· <u></u>				ks or on a separate sheet)	
0			5 - Wetland Non-	vascular Plants [*] ophytic Vegetation ¹ (Explain)	
0				oil and wetland hydrology must	
		tal Cover 265		sturbed or problematic.	
Voody Vine Stratum, (Plot size: 544)	110	/ Chem			
Hedera helix	- <u>40</u> - L	- they	Hydrophytic	1.1	
			Vegetation	X	
6 Bare Ground in Herb Stratum 47*	- uh -	al Cover	Present? Y	'es No	

OIL Profile Description: (Describe to the de	all second at the second	n ant tha i	diastar	or confirm	the shears	Sampling Point: TPI & Geolo		
				or comm	I the absent	e of mulcators.		
Depth Matrix (inches) Color (moist) %	Color (moist)	x Features %	4	_Loc ²	Texture	Remarks		
)-12.5 2.54 4/3 60		<u></u>			51	Till		
		•		1 <u>11</u>	SL	Fill mix		
10YR 4/2 30						a window with the second se		
2.54 6 2 10					SL_	Fill mix, roots		
15-23.5 2.54 612 80	7.542 5/8	20	C	M	LS	many roots		
New Content								
				-				
		·				-		
				·				
Type: C=Concentration, D=Depletion, R			t or Coat	ad Sand G	raine ² L	ocation: PL=Pore Lining, M=Matrix.		
				d Sand O		tors for Problematic Hydric Solls ³ :		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						2 cm Muck (A10)		
_ Histosol (A1)						Red Parent Material (TF2)		
_ Histic Epipedon (A2)	Loamy Mucky			+ MI RA 1)		ery Shallow Dark Surface (TF12)		
Black Histic (A3)	Loamy Gleyed					ther (Explain in Remarks)		
Hydrogen Sulfide (A4)	Depleted Matri)		0			
_ Depleted Below Dark Surface (A11)					³ Indica	tors of hydrophytic vegetation and		
Thick Dark Surface (A12) Redox Dark Surface (F6)					wetland hydrology must be present,			
_ Sandy Mucky Mineral (S1)					unless disturbed or problematic.			
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)	_		unie	ess disturbed of problematic.		
Restrictive Layer (if present):						-		
Туре:						N		
Depth (inches):					Hydric So	oil Present? Yes No		
Remarks:	1971	_						
Edge of wetland. T	ansitioning	to wa	land.					
cuge of overland.		in ob						
U	U							
YDROLOGY								
Wetland Hydrology Indicators:	· · ·							

Primary Indicators (minimum of one required; check all that apply)	Secondary indicators (2 or more required)							
Surface Water (A1) Water-Stained Leaves (B9) (except								
High Water Table (A2) MLRA 1, 2, 4A, and 4B)	4A, and 4B)							
Saturation (A3) Salt Crust (B11)	Drainage Patterns (B10)							
Water Marks (B1) Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)							
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)							
Drift Deposits (B3) Oxidized Rhizospheres along Livir	ng Roots (C3) Geomorphic Position (D2)							
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Shallow Aquitard (D3)							
Iron Deposits (B5) Recent Iron Reduction in Tilled So	ils (C6) FAC-Neutral Test (D5) 불							
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (I	RR A) Raised Ant Mounds (D6) (LRR A)							
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)							
Sparsely Vegetated Concave Surface (B8)								
Field Observations:								
Surface Water Present? Yes No X Depth (inches):								
Water Table Present? Yes No Depth (inches):	~1							
Saturation Present? Yes No Y Depth (inches): N A	Wetland Hydrology Present? Yes No							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: Well drained, steep slope								

Eureka, CA Arcata, CA Redding, CA Willits, CA Fort Bragg, CA Coos Bay, OR Klamath Falls, OR

