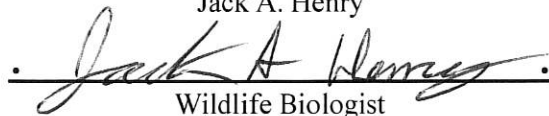


# Aquatic Resource Delineation Report

01/26/2023

*Prepared for:*  
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APN 208-241-017-000

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## 1.0 Introduction

This document provides the results of an aquatic resource delineation conducted on APN 208-241-017-000 in Humboldt County, California. The purpose of this report is to delineate the boundaries of a suspected wetland so that regulatory setbacks can be accurately determined and observed by the project. The assessment occurred during the dry season and thus hydrologic determinations are tentative, but are based on rational within the method. No jurisdictional wetland was identified as a result of this report.

### Location

The study area is located near the confluence of County Line Creek and the Mad River approximately 2.5 aerial miles northeast of Dinsmore, California 95526. The study area occurs in the NW ¼ of Section 36, T2N, R5E, Humboldt County in the Dinsmore, CA 7.5' USGS Quad.

## 2.0 Definitions

### Waters of the United States

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

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

## 3.0 Methods

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

Initial field work and delineation data collection was conducted on August 05, 2019. Additional vegetation data was collected on September 05, 2019. Five sample points were assessed for the three wetland parameters: hydrology, hydrophytic vegetation, and hydric soils. Sample Points #1 and #2 were conducted along the southern property boundary where the most prominent wetland indicators are present. Sample Points #3, #4, and #5 were conducted in a single hole spot check method within areas of potential wetland vegetation throughout the grassland habitat. Once wetland parameters are met, hydrophytic vegetative community is used to delineate the boundary between the wetland and upland habitat.

## 4.0 Results and Discussion

### Topography

The property containing the study area is located midslope along Eightmile Ridge on the eastern slopes of the Mad River. The elevation of the study area is approximately 3,000 feet about mean sea level. Slopes on the property vary but are generally steep (>30%) with acute areas displaying gradual slopes (<10%). Slopes at the study area were generally gradual, approximately 5%.

## Vegetation

The study area consists of a small meadow opening within mixed conifer hardwood timberlands. At the time of the site visit, recent ground disturbance had resulted in the acute area becoming colonized by invasive yellow star thistle (*Centaurea solstitialis*). Prior to ground disturbance, aerial imagery shows the area displaying a grassland plant community. Reference sites within the parcel reveal the study area was likely dominated by nonnatives such as Yorkshire fog (*Holcus lanatus*), sweet vernal grass (*Anthoxanthum odoratum*), Harding grass (*Phalaris aquatica*), Klamath weed (*Hypericum perforatum*), and wild oats (*Avena sp.*). Within the meadow is a small community (approx. 500 s.f.) of spreading rush (*Juncus patens*) situated between two boulders. The spreading rush community appeared to be monotypic with nonnative species encroaching. Although vegetation nearby had been disturbed, the spreading rush plant community appears the same size as historic photographs and is considered undisturbed.

## Soils

The project parcel contains three soil types; however sample points occurred within only one of these. (U.S. Department of Agriculture, Natural Resources Conservation, 2016):

- 4426 – Pasturerock-Coyoterock-Maneze complex, 15 to 50 percent slopes, dry. This soil type generally consists of 40% Pasturerock dry, 25% Coyoterock dry, 15%Maneze dry, and 20% other soil components. These soils are sourced from colluvium derived from sandstone and mudstone. Generally, these soils are dominated by clay and loam textures with variable amounts of gravel. These soils are well drained with hydric soils ratings that range from C-D.

Although soil disturbance had occurred within close proximity to the spreading rush community, there was no evidence of it having impacted the size of the community. Soils are considered normal and undisturbed for this report.

## Hydrology

The Project Parcel contains multiple watercourses and at least one man-made pond. However, the study area is located outside existing aquatic habitats and does not receive water from or drain water to any watercourse or water body. Hydrology at the study area is chiefly influenced by storm water infiltration and potentially emergent ground water. Direct rainfall and an acute drainage area upslope are the main sources for soil saturation at the study area. There is a potential, given the unlined man-made pond upslope and the topography of the site for the emergence of subsurface groundwater to also factor into soil saturation. The lack of drainage from the study area indicates, if occurring, this emergence results in temporal soil saturation and does not generate overland flows. Rainfall for the 21-22 water year was below average, but given the time of year the site visit occurred, hydrologic observations were considered normal.

## Aquatic Resources

Two sample points were placed within the spreading rush plant community to test for wetland parameters. The first sample point [SP01] is located in the eastern portion of the spreading rush community near the center of the plant community. The second sample point [SP02] was located on the western edge of the plant community, to assess conditions at the edge of the feature. Parameters at both sample points were similar with little variation documented.

Sample points revealed the site contains hydrophytic plant communities but lacks hydric soils or wetland hydrology, a common occurrence related to heavy annual rainfall in Humboldt County. SP01 and SP02 met the Rapid Test indicator for Hydrophytic Vegetation. Both sites displayed dominant spreading rush communities with small percentages of encroaching upland nonnative plants. Soils at both sites can be characterized by their dark colored matrixes with no observable redoximorphic features. Both sample points encountered fragments of cobble size rocks at a depth of 18-24 inches which prevented further excavation. These soils are characteristic of grasslands with high production of biomass and do not meet any hydric soil indicator. Although the site visit occurred outside of the normal growing season or hydrologic period for wetlands, enough evidence was present to make a hydrology determination. The

combination of lack of redoximorphic features in the soil, lack of one primary indicator, and lack of two secondary indicators lead to the conclusion that the site does not meet wetland hydrology. The lack of secondary indicators and hydric soils are the most significant factors for ruling out wetland hydrology within the study area. The presence of the spreading rush community is likely a result of episodic soil saturation that does not persist to result in wetland parameters. The study area contains a hydrophytic plant community but no 3 parameter wetland features.

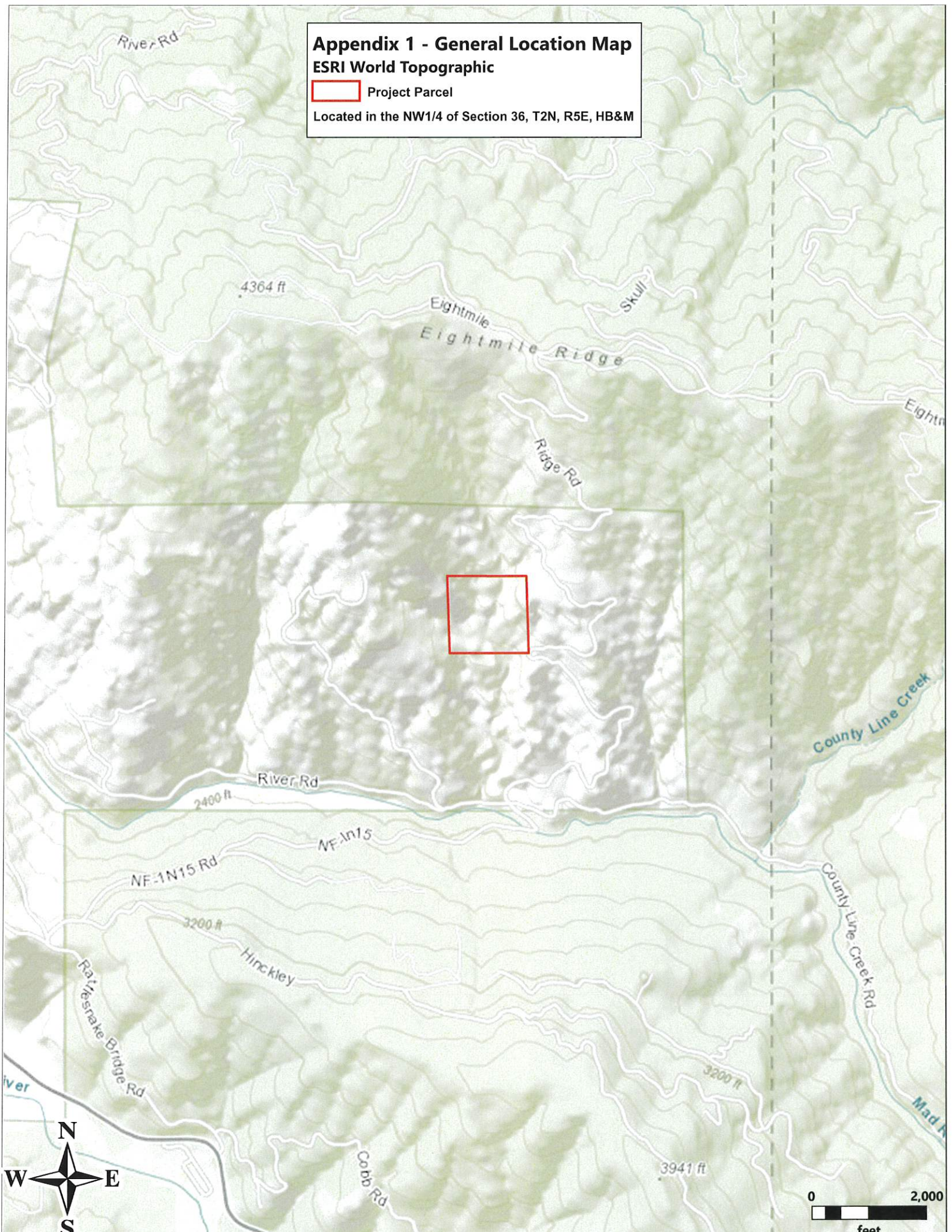
## References

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), eds. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers. 2016. Western Mountains, Valleys, and Coast Region 2016 Regional Plant List. [http://wetland\\_plants.usace.army.mil/](http://wetland_plants.usace.army.mil/)
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2016. Web Soil Survey <http://websoilsurvey.sc.egov.usda>
- Winter et al. 1998. Ground water and surface water a single resource. U.S.G.S. Branch of Information Services, Box 25286, Denver, CO.



**Appendix 1 - General Location Map**  
**ESRI World Topographic**

 Project Parcel  
Located in the NW1/4 of Section 36, T2N, R5E, HB&M






# Appendix 2 - Detailed Map

ESRI World Topographic


 Project Parcel


 Permanent Road

 Seasonal Road

 Watercourse Crossing

 Pond

 Intermittent Watercourse

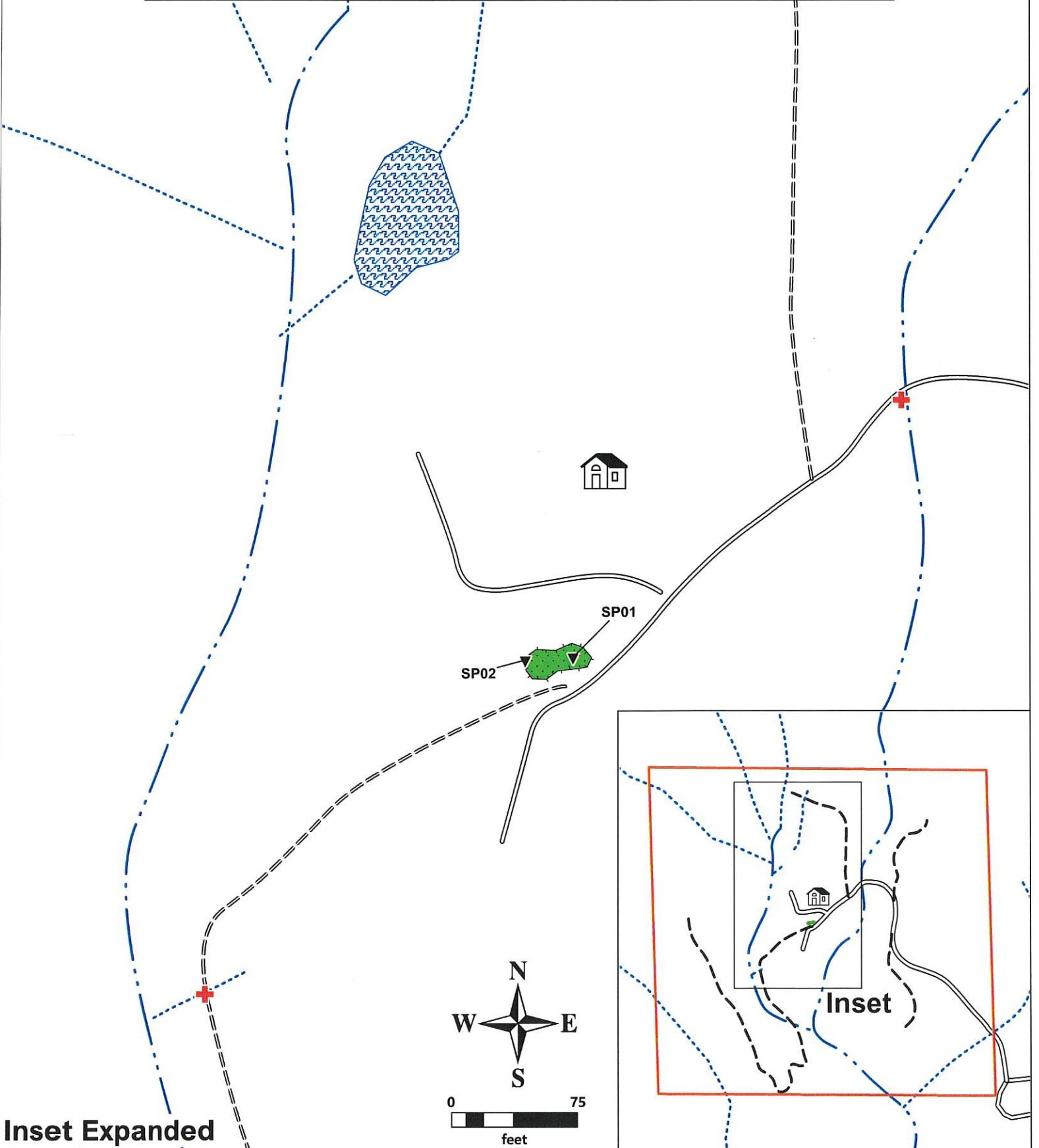
 Ephemeral Watercourse

 Existing Structure

 Spreading Rush Community

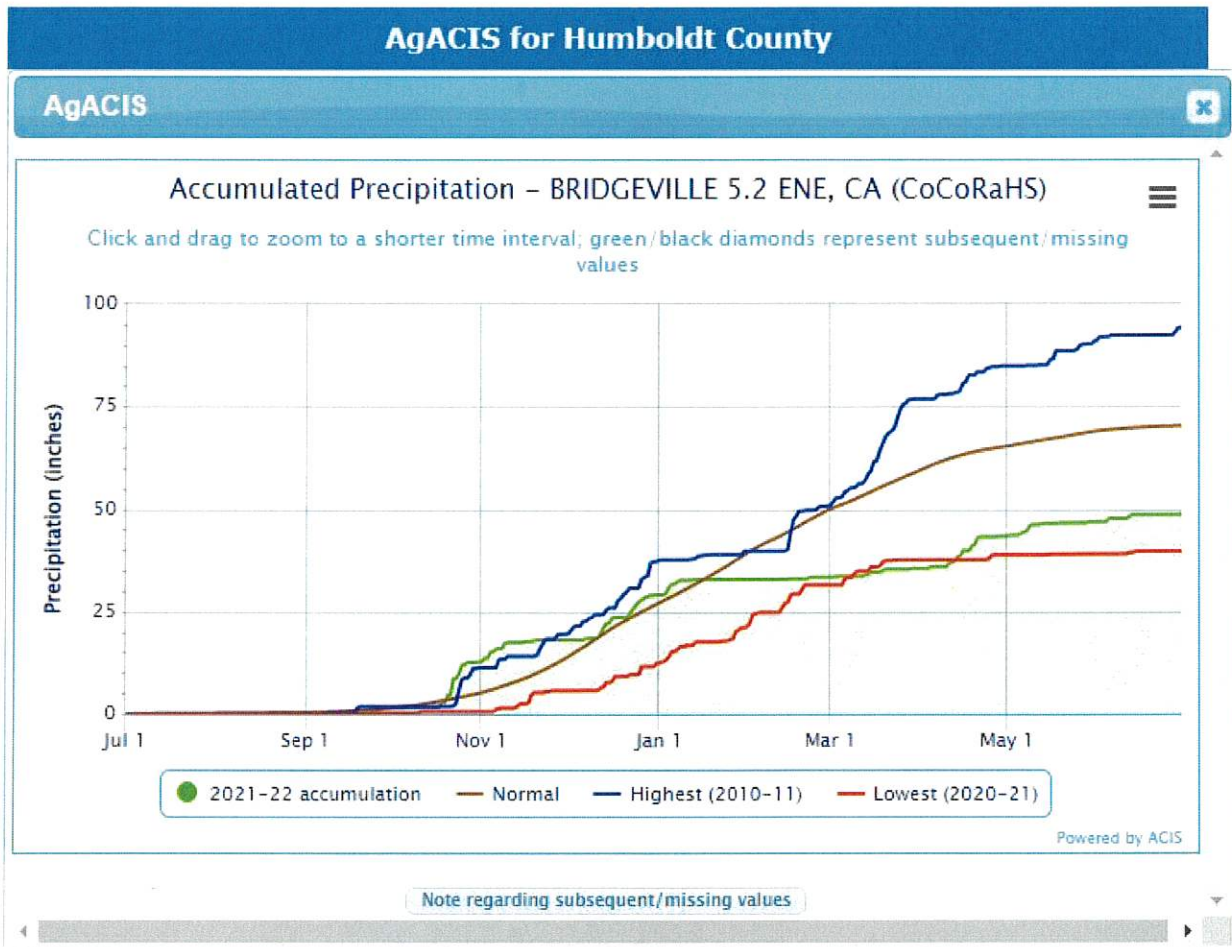
 Sample Point [SP]

Located in the NW1/4 of Section 36, T2N, R5E, HB&M



**Inset Expanded**

### Appendix 3 – Rainfall Data



Rainfall accumulation for the Bridgeville rain meter from July 01, 2021 to June 30, 2022.

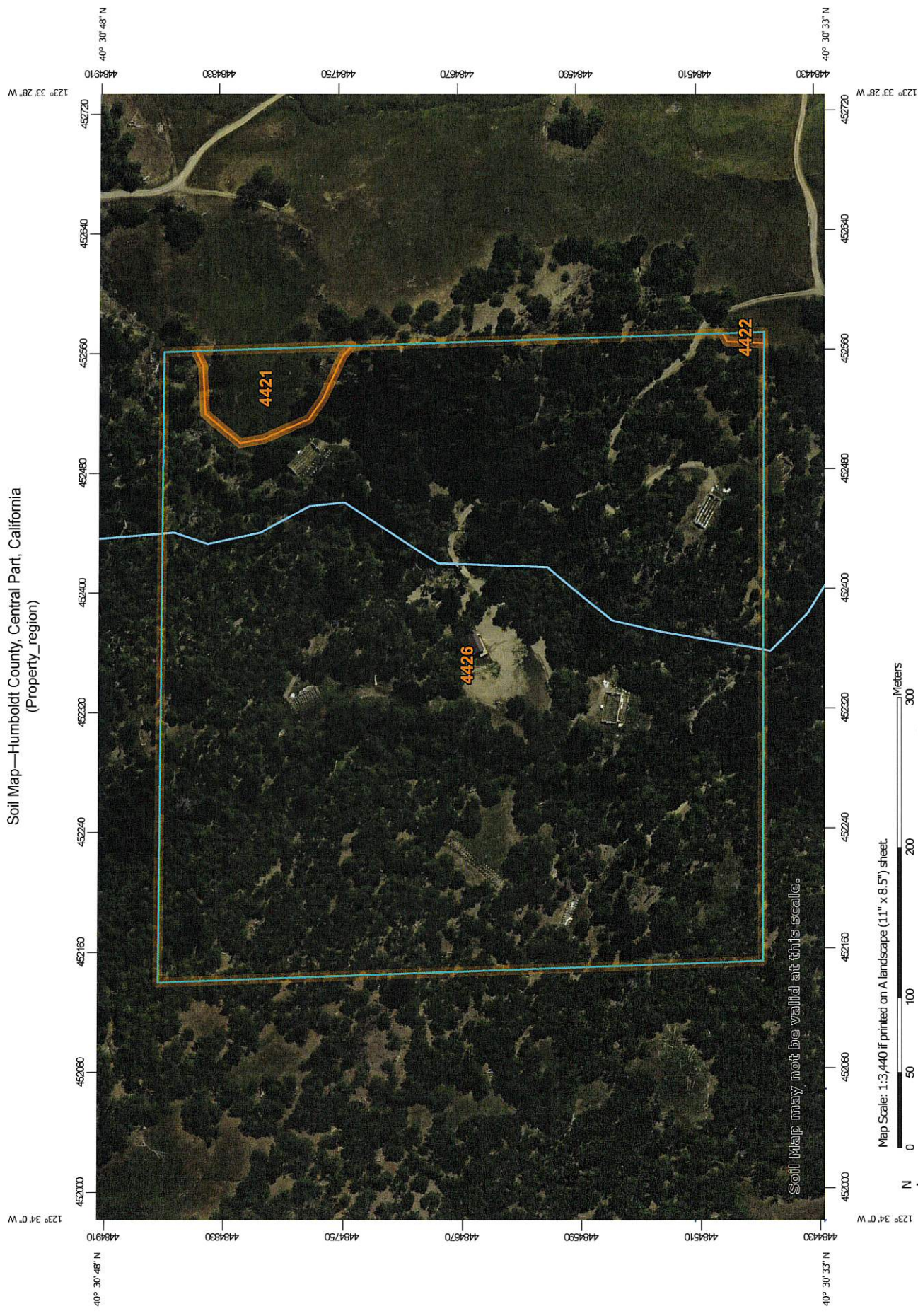
Sourced: Applied Climate Information Center (ACIS) – NOAA Regional Climate Center. <http://www.rcc-acis.org/>

Date Sourced: 01/26/2023



## **Appendix 4 – NRCS Web Soil Survey**

Soil Map—Humboldt County, Central Part, California  
(Property\_region)



Soil Map may not be valid at this scale.

Map Scale: 1:3,440 if printed on A landscape (11" x 8.5") sheet.

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



## MAP LEGEND

- Area of Interest (AOI)
- Area of Interest (AOI)
- Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points
- Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- 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
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features
- Water Features**
- Streams and Canals
- Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads
- Background**
- Aerial Photography

## MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Humboldt County, 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.

Date(s) aerial images were photographed: Jun 1, 2022—Jun 19, 2022

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
4421	Highyork-Elkcamp-Airstrip complex, 9 to 30 percent slopes	1.1	2.7%
4422	Highyork-Elkcamp-Airstrip complex, 30 to 50 percent slopes	0.0	0.1%
4426	Pasturerock-Coyoterock-Maneze complex, 15 to 50 percent slopes, dry	41.0	97.2%
<b>Totals for Area of Interest</b>		<b>42.2</b>	<b>100.0%</b>



## Appendix 5 – National Wetland Inventory



APN 208-241-017-000



January 26, 2023

**Wetlands**

- |                                |                                   |          |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland       | Lake     |
| Estuarine and Marine Wetland   | Freshwater Forested/Shrub Wetland | Other    |
|                                | Freshwater Pond                   | 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.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

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

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

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

Project/Site: APN 208-241-017 City/County: Humboldt Sampling Date: 9/16/22  
 Applicant/Owner: Marko Teovski State: CA Sampling Point: 01  
 Investigator(s): J. Henry Section, Township, Range: NW 1/4 Sec. 36, T2N, R5E, HBM  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD83  
 Soil Map Unit Name: 4426 - Pasturerock - Coyaterock - Manese NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> (1)	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Sample point is located in a patch of Juncus patens situated between 2 small boulders.</u>	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<del>1. _____</del>				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
<del>2. _____</del>				
<del>3. _____</del>				
<del>4. _____</del>				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> <del>1. _____</del> <del>2. _____</del> <del>3. _____</del> <del>4. _____</del> <del>5. _____</del>				
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>r = 3'</u>)</b> 1. <u>Juncus patens</u> 100 D FACW 2. <u>Verbena lasiostachys</u> 5 - 3. <u>Hypericum perforatum</u> 5 - 4. <u>Centaurea solstitialis</u> 5 - 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
115 = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> <del>1. _____</del> <del>2. _____</del>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>&lt; 5%</u> _____ = Total Cover				
Remarks: <u>Approx 500 SF patch of Juncus patens, surrounding area is C. solstitialis and nonnative grasses.</u>				

SOIL

Sampling Point: 01

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0-24"	10YR <sup>2/1</sup>	100					Loam		
18"	Began finding 1"-4" rocks								
24"	Fragmented rocks prevented going deeper								

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks: Dark matrix but no redox features. Given plant community the area is likely wet over and pot. into spring but not saturated long enough to form redox. Frag. rock may result

HYDROLOGY in drainage/percolation.

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No ?

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

Remarks: Sample point does not display any primary indicators. The plant community is hydrophytic and thus passes the FAC Neutral. No other secondary indicators present. Soils are not hydric so hydrology is unlikely.



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

Project/Site: APN 208-241-017 City/County: Humboldt Sampling Date: 02  
 Applicant/Owner: Marko Teovski State: CA Sampling Point: 9/16/22  
 Investigator(s): J. Henry Section, Township, Range: NW 1/4 Sec 36, T2N, R5E, HBM  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD83  
 Soil Map Unit Name: 4426 NWI classification: N/A

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> (2)	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>SP on edge of Juncus patch</u>	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>r=3'</u> )				
1. <u>Juncus patens</u>	<u>70</u>	<u>D</u>	<u>FACW</u>	
2. <u>Hypericum perforatum</u>	<u>10</u>	<u>-</u>		
3. <u>Centaurea solstitialis</u>	<u>10</u>	<u>-</u>		
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>10%</u>				
Remarks: <u>Sampled on western edge of Juncus patch</u>				

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

**Prevalence Index worksheet:**

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

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

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

**SOIL**

Sampling Point: 02

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18"	10YR 7/1	100	<del>_____</del>				loam	
18"	began encountering rocks							

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks: Dark matrix with no redox

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>		<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks: No primary indicators and only one secondary indicator. Although plant community is hydrophytic the soils indicate no wetland hydrology. Sampling did occur in dry season.