

# **Initial Wetlands and Waters Delineation**

**Pickett Road 2023**

Prepared by  
J. Regan Consulting  
Eureka, CA.  
December 2023

For  
**MAD RIVER PROPERTIES, INC.**  
**MCKINLEYVILLE, CA.**

## Contents

Summary of Findings.....	3
Recommendations .....	4
Introduction.....	5
Setting .....	5
Methods.....	5
Vegetation .....	6
Soils.....	8
Hydrology .....	9
Results/Recommendations .....	9
Wetlands and Waters Delineation.....	9
Recommendations .....	11
Conditions and Limitations.....	11
References .....	13

Attachment A: General Location Map, Humboldt County Resource Map, Soils Report, USFWS Wetland Map,  
Wetland Plot Map  
Attachment B: ACOE Plot Forms

## Summary of Findings

The approximately 2.5-acre study area contains no discernable jurisdictional (local, state, or federal) wetlands or waters at this time.

Any areas with any positive indicators of wetland setting (soils, hydrology, or vegetation) are considered wetlands under the local McKinleyville Community Plan. Areas with two positive parameters are often considered jurisdictional by the state of California (waters of the state) and areas with three positive parameters are often considered federally jurisdictional waters (waters of the U.S.).

Field work was completed in December of 2023 which is prior to the documented growing season for the region (although herbaceous plants were growing and developing, an indicator of an active growing period) and early in the wet season for the region which can last well into the spring and even summer months. This study was focused on the soils on site and utilized a seasonally appropriate botanical survey (completed in 2023) for further evaluation of the vegetation communities and individual species found within the study area.

As indicated in the botanical survey report and noted during this investigation, there are several individual species present that are positive indicators of hydric vegetation (wetland indicator status of FAC, FACW, or OBL), however, these species were not dominant in the vegetation community present and did not create any significant hydric vegetation communities within the study area. In addition, many of the species encountered were non-native, with many ornamental and some invasive species.

Soils within the study area did not show positive indicators of a wetland setting and were generally soils common to upland pasture and grazeland in the region. There is a layer of brighter colored sandy soil that underlies the site and is common to the McKinleyville plateau. This soil profile is composed of dark loam on the surface and below that a dense, compact layer of bright colored coarse sandy clay loam. This subtending layer was a mix of yellow and brightly orange colored material that may represent a native soil layer derived from similar sources as the coastal bluff or marine up-thrust soils exposed along the coastline. The soil profile was interesting and contains some hard, relict concretions but did not meet any of the criteria for indicators of contemporary wetland soils, this could potentially be a relic of past hydrogeomorphic processes.

No positive primary indicators of wetland hydrology were encountered within the study site. Using the United States Department of Agriculture (USDA) Agricultural Applied Climate Information System (AgCIS) and the Woodley Island weather station data, the average accumulation of rainfall for this area during the beginning of the wet season (October 15 to December 31) is 14.99 inches, 2023 totals for October 15-December 31 were 12.67 inches, slightly below average. No areas of the study site were inundated or saturated within 12 inches of the soil surface at the time of survey.

Any wetlands or watercourses located within the surveyed area may be considered jurisdictional by either California Department of Fish and Wildlife (CDFW), The United States Army Corps of Engineers (ACOE), the Community of McKinleyville or all three.

Any and all identified features are included on the included Wetlands and Waters Plot Map, if present.

2023 is a year with slightly below average rainfall.

## Recommendations

**This initial study did not reveal any areas with positive indicators of wetland vegetation, soils, or hydrology. However, due to the early timing of the field visit the site should be re-surveyed at the established plots later in the hydrologic season when rainfall accumulation would likely have been sufficient to either fill the site from above with input from precipitation or when potential ground water sources are filled and active. McKinleyville wetland regulations indicate that a site will be considered a wetland with only seven consecutive days of inundation. I recommend re-survey in March-April immediately after a period of significant rainfall. The site should be visited just after the cessation of rain and if water levels reach the first 12 inches of the soil profile the site should be monitored until water levels recede. Areas that hold water in the upper portions of the soil profile for seven days after the cessation of rain may be considered one parameter wetlands by the McKinleyville Community Plan. If wetlands are detected, they will be mapped and reported to the appropriate agencies. I recommend avoiding impacts to all wetlands found on site (if any) by adhering to all Federal, State, County, and local ordinances for permitted developments. In general development projects should remain outside of setbacks for waters. Setback measurements should be done according to current guidelines enforced by the lead agency in any permitting situation.**

## Introduction

The study area was assessed and surveyed for the presence of jurisdictional waters of both the State of California and of the United States of America as required by the federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act, methodologies used are described in full below. In addition, the site was evaluated for the presence of single parameter wetlands as required by the McKinleyville Community Plan.

This report is the result of an in-field survey, reviews of relevant scientific literature, and professional knowledge. This survey report is intended to satisfy any project needs for the identification, classification, and delineation of wetlands or waters for avoidance or mitigation during any development activities.

## Setting

The approximately 2.5-acre study area is located in the community of McKinleyville, Humboldt County, California on the Arcata North USGS 7.5' quadrangle. The subject parcel is located east of Central Avenue and the city center (see General Location Map in Attachment A). Elevation on site ranges from 168-175 feet above mean sea level. Parcels included within the study area are listed below.

APN# 510-381-021

The subject parcels and all potential development occur outside of the California coastal zone.

The study area is composed of a relatively flat open area of managed grassland with a single house and several outbuildings. The site is almost surrounded by developed subdivisions. The parcel is bounded by Pickett Road on the north and Gwin Road to the south. Vegetation on site is composed of low-lying grasses and forbs common to disturbed and managed sites in the region. The site is likely mown and has recently held several cattle. Ornamental plantings surround the house and grow on the parcel edges shared by neighbors.

There were no wetlands previously mapped by either the County of Humboldt or the United States Fish and Wildlife Service (USFWS). See wetland and county resource maps, included in Attachment A, within the study area.

Project area base maps courtesy of Google Earth, Humboldt County Web GIS, USFWS Wetland Mapper, and USDA Web Soil Survey are included as attachments at the end of this report.

## Methods

An assessment of potential impacts to adjacent watercourses or wetlands within 500 feet of the subject parcel was conducted by interpretation of aerial photography and resource maps courtesy of Google Earth, the United States Geologic Survey (USGS) 7.5' Arcata North quadrangle map, Humboldt County Web GIS, and USFWS National Wetland Inventory. This assessment was supplemented by an in-field survey of the subject areas. In field survey was conducted on 9

December 2023 by Mr. James Regan. Mr. Regan has a bachelor's degree in Botany and training and experience in wetland delineations and botanical survey and has conducted wetland surveys and delineations in Humboldt, Mendocino, and Trinity counties since 2008.

Any mapped watercourses were identified using the U.S. Army Corps of Engineers (ACOE) "Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States" (Merzel, Licvar 2014).

Potential wetlands and wetland boundaries were assessed using guidelines outlined in the ACOE Wetland Delineation Manual Technical Report Y-87-1 (referred to as the 1987 manual) and the Draft Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region. The 1987 manual provides technical guidelines for identifying wetlands, distinguishing them from non-wetlands, and provides methods for applying the technical guidelines. Three key provisions of the ACOE wetland definition include:

- i. Inundated or saturated soil conditions resulting from permanent or periodic inundation by ground or surface water.
- ii. A prevalence of vegetation typically adapted for life in saturated soil conditions (hydrophytic vegetation)
- iii. The presence of "normal circumstances"

Explicit in the ACOE definition is the consideration of three environmental parameters: Hydrology, Vegetation, and Soils. Positive wetland indicators of all three parameters are normally present in wetlands. The ACOE methodology requires one positive indicator from each parameter in order to make a positive wetland determination, while CDFW often requires only two positive parameters, and the McKinleyville Community Plan requires only a single positive parameter.

This wetland and waters evaluation also utilized techniques from the technical manual A Hydrogeomorphic Classification of Wetlands (Brinson 1993) wherein wetlands are classified by land position and hydrologic regime.

Areas which were obvious wetlands and areas sampled with any positive indicators of wetland setting will be identified as wetlands (one, two, or three parameter) and will be included on the Wetland and Waters Plot Map in Attachment A. Watercourses and wetlands were classified as either Seasonal (Intermittent and Ephemeral) or Perennial. ACOE wetland delineation forms were completed for each samples plot. These forms are included as Attachment B.

## Vegetation

The ACOE Manual (1987) directs that presence of a single individual of hydrophytic species does not mean that hydrophytic vegetation is present. However, hydrophytic vegetation is considered to be present if 50% of the dominant species have indicator status of OBL, FACW or FAC.

- Obligate (OBL)—usually occurs within a wetland (estimated probability 99%)
- Facultative-wet (FACW)—usually occurs in wetlands (estimated probability 67-99%)
- Facultative (FAC)—equally likely to occur in wetlands or non-wetlands (estimated probability 33-67%)
- Facultative-upland (FACU)—usually occurs in non-wetlands (estimated probability 1-33%)
- Upland (UPL)—occurs almost always in non-wetlands (estimated probability 99%)
- Non-Indicator (NI)—scored as an upland plant and calculated as such on wetland determination forms

Dominant species are determined by estimating those having the greatest percentage of cover using the “50/20” rule. The “50/20” rule entails that for each sample point and associated plant community, dominant species are the most abundant species, when ranked in descending order of abundance and cumulatively totaled, that immediately exceed 50% of the total dominance measure for the stratum, plus any additional species comprising 20% or more of the total dominance measure for each stratum. Absolute cover contribution was estimated for each sample plot, due to layering of species and strata percent cover values may exceed 100%. For marginal sites the FAC neutral test and the Prevalence Index were also utilized. These calculations (shown on attached forms) further analyze vegetation community using all species in the plot not just the dominant species.

Plants on site were largely non-native. Grass species were often mown/grazed and did not have seed heads or inflorescences generally necessary for identification. A list of species present from the recent botanical survey was used for further guidance. Table 1 contains the grass species present and their respective wetland indicator status, in vegetation plots the grasses were treated as a group (unless otherwise noted) and given a FACU rating based on the number of species with upland characteristics verses the species with hydric ratings. No dominant vegetation on site had a status of FACW or OBL, and few FAC species were dominant in plots, these were outweighed by the other dominant plants with upland or non-indicator status at each sample point.

*Table 1. Grass Species Present*

Graminoid Species	Common Name	Wetland Indicator Status	Notes
<i>Agrostis capillaris</i>	colonial bentgrass	FAC	Non-native
<i>Anthoxanthum odoratum</i>	sweet vernal grass	FACU	Cal-IPC*: Limited
<i>Avena barbata</i>	slender oat	NI**	Cal-IPC: Moderate
<i>Avena sativa</i>	cultivated oat	UPL	Non-native
<i>Bromus catharticus</i>	rescue grass	NI	Non-native
<i>Cynodon dactylon</i>	Bermuda grass	FACU	Cal IPC: Moderate
<i>Dactylis glomerata</i>	orchard grass	FACU	Cal IPC: Limited
<i>Festuca arundinacea</i>	tall fescue	NI	Cal IPC: Moderate
<i>Festuca myuros</i>	rattail sixweeks grass	NI	Cal-IPC: Moderate



Graminoid Species	Common Name	Wetland Indicator Status	Notes
<i>Holcus lanatus</i>	velvet grass	FAC	Cal-IPC: Moderate
<i>Poa annua</i>	annual bluegrass	FAC	Non-native
<i>Poa pratensis</i>	Kentucky blue grass	FAC	Cal-IPC: Limited

\* California Invasive Plant Council ranking (an invasive species)

\*\*NI - Non Indicator treated as an upland (UPL) species

## Soils

Current USDA soils maps were obtained from the USDA Web Soil Survey and are included in Attachment A. The project area falls into a soil map unit labeled as: **Arcata and Candymountain Soils 0-2% Slopes**. 10 soil pits were excavated during this investigation and are included on the attached Wetland Plot Map. Soils did not show significant indication of hydric conditions and were comparable to upland soil conditions in the region. The soil pits often had a deeper layer of brightly colored, sandy soils. This subtending layer was a mix of yellow and brightly orange colored material that may represent a native soil layer derived from coastal bluff or marine up-thrust. The soil profile was interesting and contains some hard, relict concretions but did not meet any of the criteria for indicators of contemporary wetland soils, this could potentially be a relic of past hydrogeomorphic processes. A representative image of the soils found in the Pickett Road study area is presented below along with an image of a hydric soil from a wetland site in Fortuna, CA (south of McKinleyville), note the greyed out “reduced” condition of the matrix of the known wetland soil and the redoxomorphic concentrations included there compared to the warm brown and bright colors of the Pickett Road sample.

*Image 1. Pickett Road Soil*



*Image 2. Fortuna Wetland Soil*





## Hydrology

Each observation point for determination and delineation of watercourse and wetland boundaries was examined for indicators of wetland hydrology.

Indicators of wetland hydrology include surface water, drainage patterns, drift lines, sediment deposits, watermarks, and visual observations of saturated soils and/or inundation. Drainage patterns were determined by observing any signs of surface flow into or through the subject parcel. Aerial imagery was used courtesy of Google Earth and Humboldt County Web GIS.

This initial study was conducted in December of 2023, a period with slightly below average annual rainfall.

No obvious areas of surface water, saturation or inundation were noted. No primary indicators of wetland hydrology were noted.

## Results/Recommendations

### Wetlands and Waters Delineation

The approximately 2.5-acre study area contains no discernable jurisdictional (local, state, or federal) wetlands or waters at this time.

Any areas with any positive indicators of wetland setting (soils, hydrology, or vegetation) are considered wetlands under the local McKinleyville Community Plan. Areas with two positive parameters are often considered jurisdictional by the state of California (waters of the state) and areas with three positive parameters are often considered federally jurisdictional waters (waters of the U.S.).

Field work was completed in December of 2023 which is prior to the documented growing season for the region (although herbaceous plants were growing and developing, an indicator of an active growing period) and early in the wet season for the region which can last well into the spring and even summer months. This study was focused on the soils on site and utilized a seasonally appropriate botanical survey (completed in 2023) for further evaluation of the vegetation communities and individual species found within the study area.

As indicated in the botanical survey report and noted during this investigation, there are several individual species present that are positive indicators of hydric vegetation (wetland indicator status of FAC, FACW, or OBL), however, these species were not dominant in the vegetation community present and did not create any significant hydric vegetation communities within the study area. In addition, many of the species encountered were non-native, with many ornamental and some invasive species.

Soils within the study area did not show positive indicators of a wetland setting and were generally soils common to upland pasture and grazeland in the region. There is a layer of brighter colored sandy soil that underlies the site, and is common to the McKinleyville plateau,

this soil profile is composed of dark loam on the surface and below that a dense, compact layer of very light colored coarse sandy clay loam. This subtending layer was a mix of yellow and brightly orange colored material that may represent a native soil layer derived from similar sources as the coastal bluff or marine up-thrust soils exposed along the coastline. The soil profile was interesting and contains some hard, relict concretions but did not meet any of the criteria for indicators of contemporary wetland soils, this could potentially be a relic of past hydrogeomorphic processes.

No positive primary indicators of wetland hydrology were encountered within the study site. Using the United States Department of Agriculture (USDA) Agricultural Applied Climate Information System (AgCIS) and the Woodley Island weather station data, the average accumulation of rainfall for this area during the beginning of the wet season (October 15 to December 31) is 14.99 inches, 2023 totals for October 15-December 31 were 12.67 inches, slightly below average. No areas of the study site were inundated or saturated within 12 inches of the soil surface at the time of survey.

The table below contains a summary of the plot results from the December survey.

*Table 2. Wetland Plot Summary*

Plot Number	Vegetation	Hydrology	Soils	Notes
1	Negative	Negative	Negative	
2	Negative	Negative	Negative	
3	Negative	Negative	Negative	Possible burn pile site, deeper soils with relict features
4	Negative	Negative	Negative	Plot in swale from cow and travel between ends of parcel
5	Negative	Negative	Negative	
6	Negative	Negative	Negative	
7	Negative	Negative	Negative	Deeper soils with relict features
8	Negative	Negative	Negative	Deeper soils with relict features
9	Negative	Negative	Negative	Lowest point on parcel, likely cattle bedded here
10	Negative	Negative	Negative	

Any wetlands or watercourses located within the surveyed area may be considered jurisdictional by either California Department of Fish and Wildlife (CDFW), The United States Army Corps of Engineers (ACOE), the Community of McKinleyville or all three.

Any and all identified features, if present, are included on the included Wetlands and Waters Plot Map.

2023 is a year with slightly below average rainfall.

## Recommendations

**This initial study did not reveal any areas with positive indicators of wetland vegetation, soils, or hydrology. However, due to the early timing of the field visit the site should be re-surveyed at the established plots later in the hydrologic season when rainfall accumulation would likely have been sufficient to either fill the site from above with input from precipitation or when potential ground water sources are filled and active. McKinleyville wetland regulations indicate that a site will be considered a wetland with only seven consecutive days of inundation. I recommend re-survey in March-April immediately after a period of significant rainfall. The site should be visited just after the cessation of rain and if water levels reach the first 12 inches of the soil profile the site should be monitored until water levels recede. Areas that hold water in the upper portions of the soil profile for seven days after the cessation of rain may be considered one parameter wetlands by the McKinleyville Community Plan. If wetlands are detected, they will be mapped and reported to the appropriate agencies. I recommend avoiding impacts to all wetlands found on site (if any) by adhering to all Federal, State, County, and local ordinances for permitted developments. In general development projects should remain outside of setbacks for waters. Setback measurements should be done according to current guidelines enforced by the lead agency in any permitting situation.**

## Conditions and Limitations

This report is based on conditions observed and recorded during field visits in December of 2023. This report has not been reviewed nor has concurrence with the conclusions been obtained. Verification by agencies may be necessary in the future. Land use practices and regulations can change, thereby affecting conditions and delineation results described herein.

This report and accompanying maps and data should be transmitted to the appropriate agents for review and included in any application for permits necessary for the completion of any proposed development projects on the subject property.

The location and extent of mapped features is approximate. Maps are not to scale. In field survey and monumentation of pertinent features for buffering or mitigation planning may be required prior to the initiation of permitted activities.

The significance of wetlands and the necessity for mitigation during development is decided by regional agents of the appropriate federal, state, and local agencies if and when the site is reviewed for permitting purposes.

This report was prepared for exclusive use; consultants are not liable for any actions arising out of the reliance of any third party on the information contained in this report.

Please feel free to call with any questions.

James Regan

A handwritten signature in blue ink, appearing to read 'J. Regan', with a long horizontal flourish extending to the right.

Botanist/Wetland Delineator  
707-845-0821

## References

- Allen, G. and J. Antos. 1988. Morphological And Ecological Variation Across A Hybrid Zone Between *Erythronium oregonum* and *E. revolutum* (Liliaceae). Madroño, Vol. 35, No. 1, pp. 32-38.
- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley.
- Brinson, M.M. 1993. A Hydrogeomorphic Classification for Wetlands. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS, USA. [Technical Report WRP-DE-4](#), U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- [CDFG] California Department of Fish and Game. 2018. "Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" State of California.
- California Department of Fish and Wildlife, Natural Diversity Database. April 2018. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. 73 pp.
- CNPS (California Native Plants Society). 2018. *Inventory of Rare and Endangered Plants*. (on-line edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed March 2018.
- CNPS. [2021]. A Manual of California Vegetation, Online Edition. <http://www.cnps.org/cnps/vegetation/>; searched on [9, August, 2021]. California Native Plant Society, Sacramento, CA.
- Cal-IPC. 2006. California Invasive Plant Inventory. Cal-IPC Publication 2006-02 California Invasive Plant Council: Berkeley, CA. Available: [www.cal-ipc.org](http://www.cal-ipc.org).
- Circuit Rider Productions, Inc. (CRP). October 2003. *CALIFORNIA SALMONID STREAM HABITAT RESTORATION MANUAL, PART XI RIPARIAN HABITAT RESTORATION*, under a grant agreement with the California Department of Fish and Game.
- Coleman, Ronald A. 1995. The Wild Orchids of California. Comstock Publishing Associates a division of Cornell University Press. Ithaca, New York
- Hitchcock, C.L. and A. Cronquist. 1973. *Flora of the Pacific Northwest: An Illustrated Manual*. Seattle, Wash.: University of Washington Press. xix + 730 pp.
- Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, CA

Humboldt County General Plan, Streamside and Wetland Management Area Ordinance §314-61

Humboldt County General Plan, Community Plan Areas, McKinleyville Community Plan.  
December 2002 (Amended October 2017).

Humboldt County Weed Management Area. 2010. *Invasive Weeds of Humboldt County: A Guide for Concerned Citizens* (2nd Edition). Arcata, California.

Jepson Flora Project (eds.) 2020. Jepson eFlora, <https://ucjeps.berkeley.edu/eflora/> [accessed in 2021].

List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.

Mercel, M.K. and R.W. Lichvar. 2014. *Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States*. US Army Corps of Engineers (ACOE), August 2014.

Munz, P. A. and D. D. Keck. 1970. *A California Flora*. University of California Press. Berkeley, CA.

Sawyer, J.O. ,T.Keeler-Wolf, and, J.M. Evens. 2009. *A Manual of California Vegetation*, 2<sup>nd</sup> edition. California Native Plant Society, Sacramento,CA.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed [8/2021].

US Army Corps of Engineers (ACOE). 1987. Corps of Engineers Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1.

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)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3.Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5 <http://wetland-plants.usace.army.mil/> U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH

United States Dept. of Agriculture 2016. Agricultural Applied Climate Information System (AgCIS). Accessed December 2023.

U. S. Fish and Wildlife Service. February 2019. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.  
<http://www.fws.gov/wetlands/>

U.S.D.I – F.W.S. (United States Department of the Interior, Fish and Wildlife Service). 1996. *National List of Vascular Plant Species that Occur in Wetlands: 1996 National Summary*. Ecology Section, National Wetlands Inventory, FWS, report dated March 3, 1997. 209 pp.



## **Attachment A**

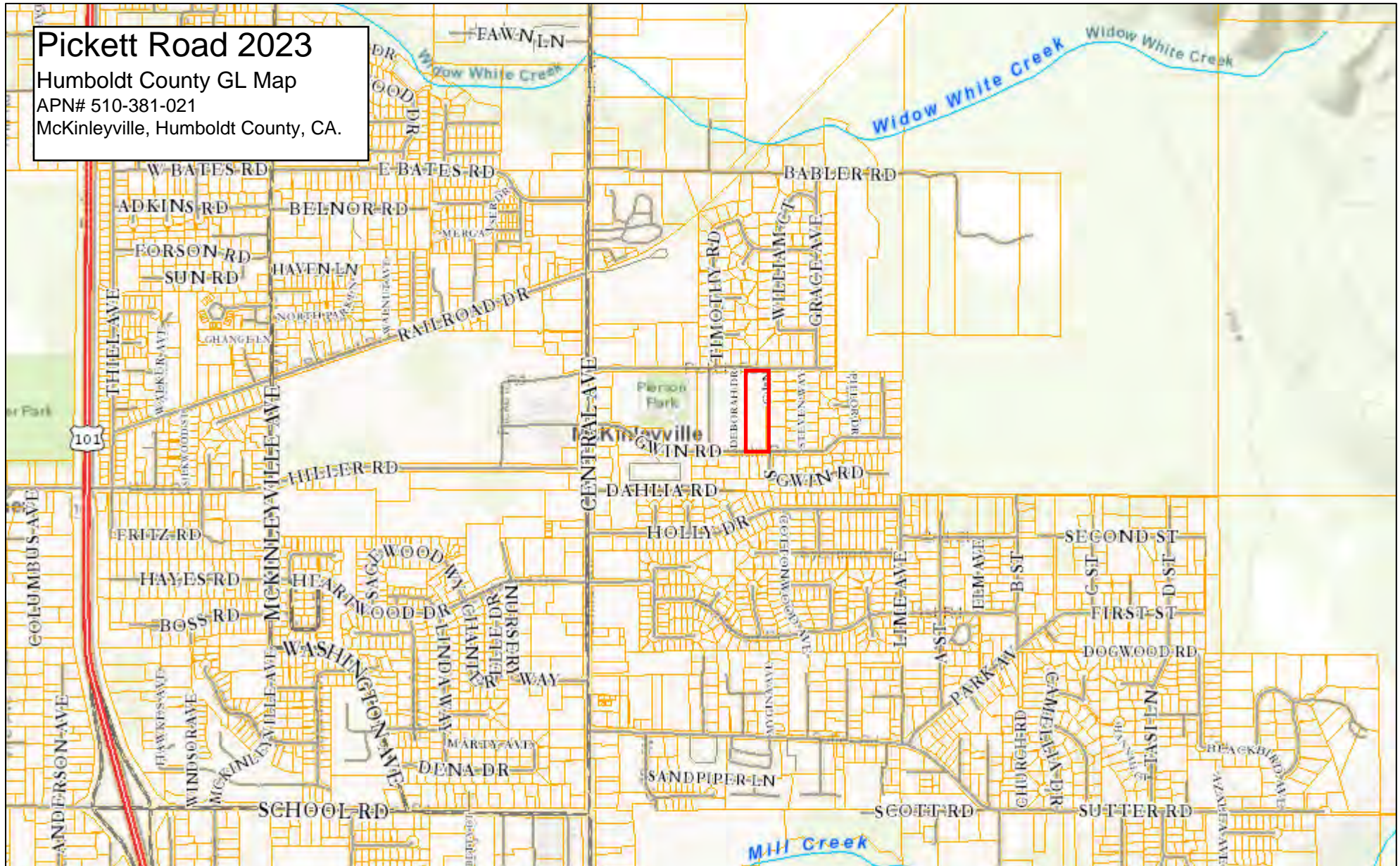
### **General Location Map, Humboldt County Resource Map, USFWS Wetland Map, USGS Soil Report, Wetland Plot Map**

# Pickett Road 2023

Humboldt County GL Map

APN# 510-381-021

McKinleyville, Humboldt County, CA.



## General Location

Humboldt County Planning and Building Department

1/1/2024, 4:31:43 PM

Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:  
While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Pickett Road 2023 - Interim Wetland Report

### Highways and Roads

- Principal Arterials
- Minor Arterials
- Major Collectors
- Minor Collectors
- Local Roads

### Blue Line Streams

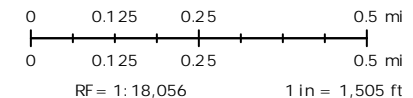
- Perennial 1-3
- Perennial >4

- Private or Unclassified
- Major River or Stream
- Intermittent
- Subsurface

### City Boundary

- City Boundary
- City Boundary (750K)
- Counties
- Parcels (no APN labels)

### Study Area



Sources: Humboldt County GIS  
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

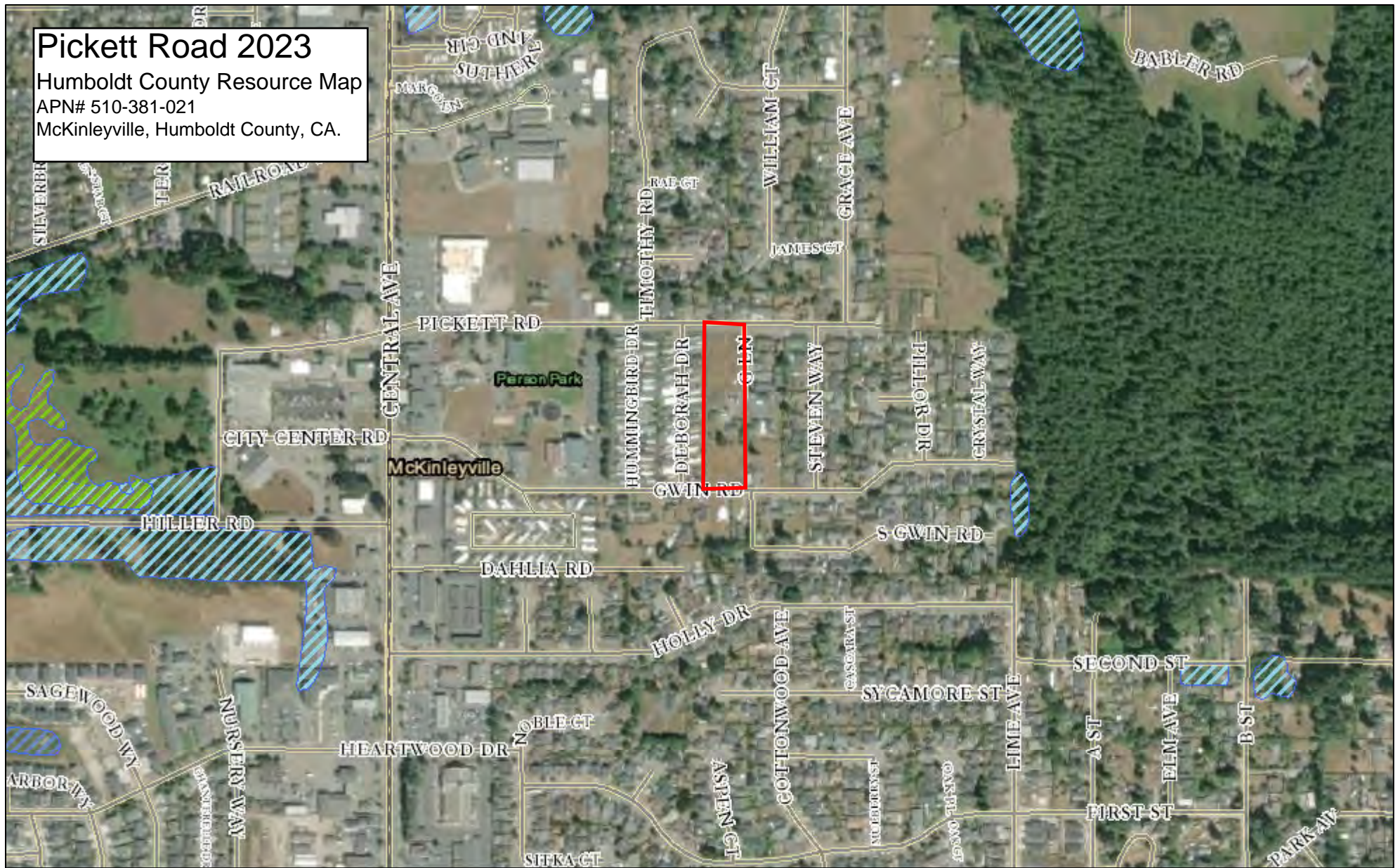


# Pickett Road 2023

Humboldt County Resource Map

APN# 510-381-021

McKinleyville, Humboldt County, CA.



## County Resource Map

Humboldt County Planning and Building Department

1/1/2024, 4:52:20 PM

Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:  
While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Pickett Road 2023 - Interim Wetland Report

### Highways and Roads

- Principal Arterials
- Minor Arterials
- Major Collectors
- Minor Collectors
- Local Roads

### Blue Line Streams

- Perennial 1-3
- Perennial >4

### Highways and Roads

- Private or Unclassified
- Major River or Stream
- Intermittent
- Subsurface

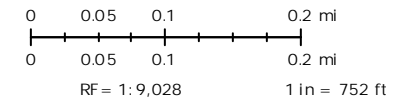
### City Boundary

- Counties

<default layer do not remove>

- Streamside Management Areas

### Study Area



Sources: NRCS  
Humboldt County GIS  
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community  
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community





U.S. Fish and Wildlife Service

# National Wetlands Inventory

## Pickett Road 2023

APN# 510-381-021

McKinleyville, Humboldt County, CA.



U.S. Fish and Wildlife Service, National Standards and Support Team,  
wetlands\_team@fws.gov

January 2, 2024

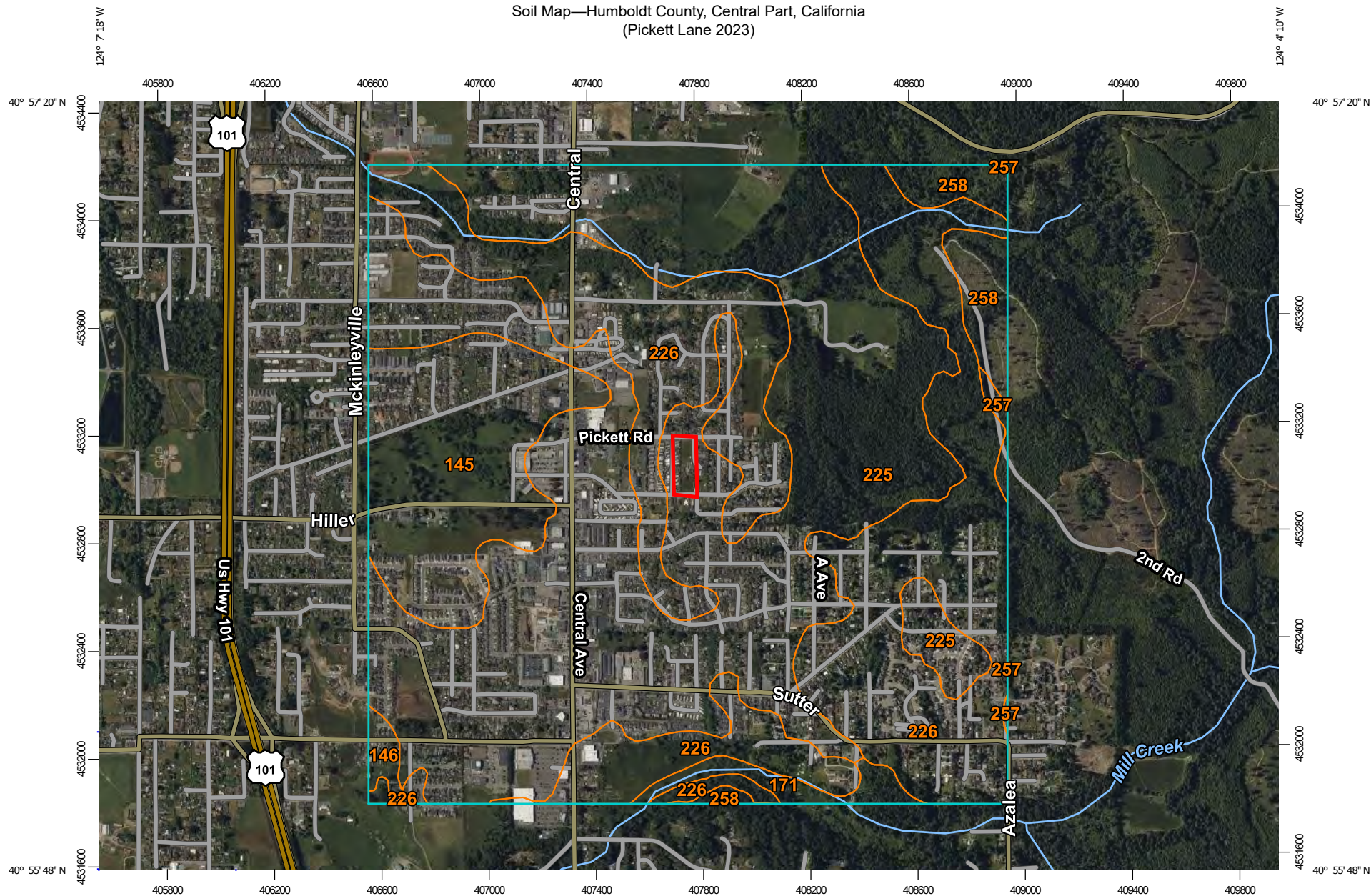
### Wetlands

- |                                |                                   |            |
|--------------------------------|-----------------------------------|------------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland       | Lake       |
| Estuarine and Marine Wetland   | Freshwater Forested/Shrub Wetland | Other      |
|                                | Freshwater Pond                   | Riverine   |
|                                |                                   | Study Area |

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.



# Soil Map—Humboldt County, Central Part, California (Pickett Lane 2023)



Map Scale: 1:20,100 if printed on A landscape (11" x 8.5") sheet.

0 250 500 1000 1500 Meters

0 500 1000 2000 3000 Feet

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



Study Area

Soil Map—Humboldt County, Central Part, California  
(Pickett Lane 2023)


## 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.

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 10, Aug 28, 2023

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
145	Halfbluff-Tepona-Urban Land, 0 to 2 percent slopes	155.7	11.1%
146	Halfbluff-Tepona-Urban Land, 2 to 9 percent slopes	7.4	0.5%
171	Worswick-Arlynda complex 0 to 2 percent slopes	18.7	1.3%
225	Arcata and Candymountain soils, 0 to 2 percent slopes	708.3	50.5%
226	Arcata and Candymountain soils, 2 to 9 percent slopes	466.8	33.3%
257	Lepoil-Candymountain complex, 2 to 15 percent slopes	4.8	0.3%
258	Lepoil-Espa-Candymountain complex, 15 to 50 percent slopes	42.0	3.0%
<b>Totals for Area of Interest</b>		<b>1,403.8</b>	<b>100.0%</b>

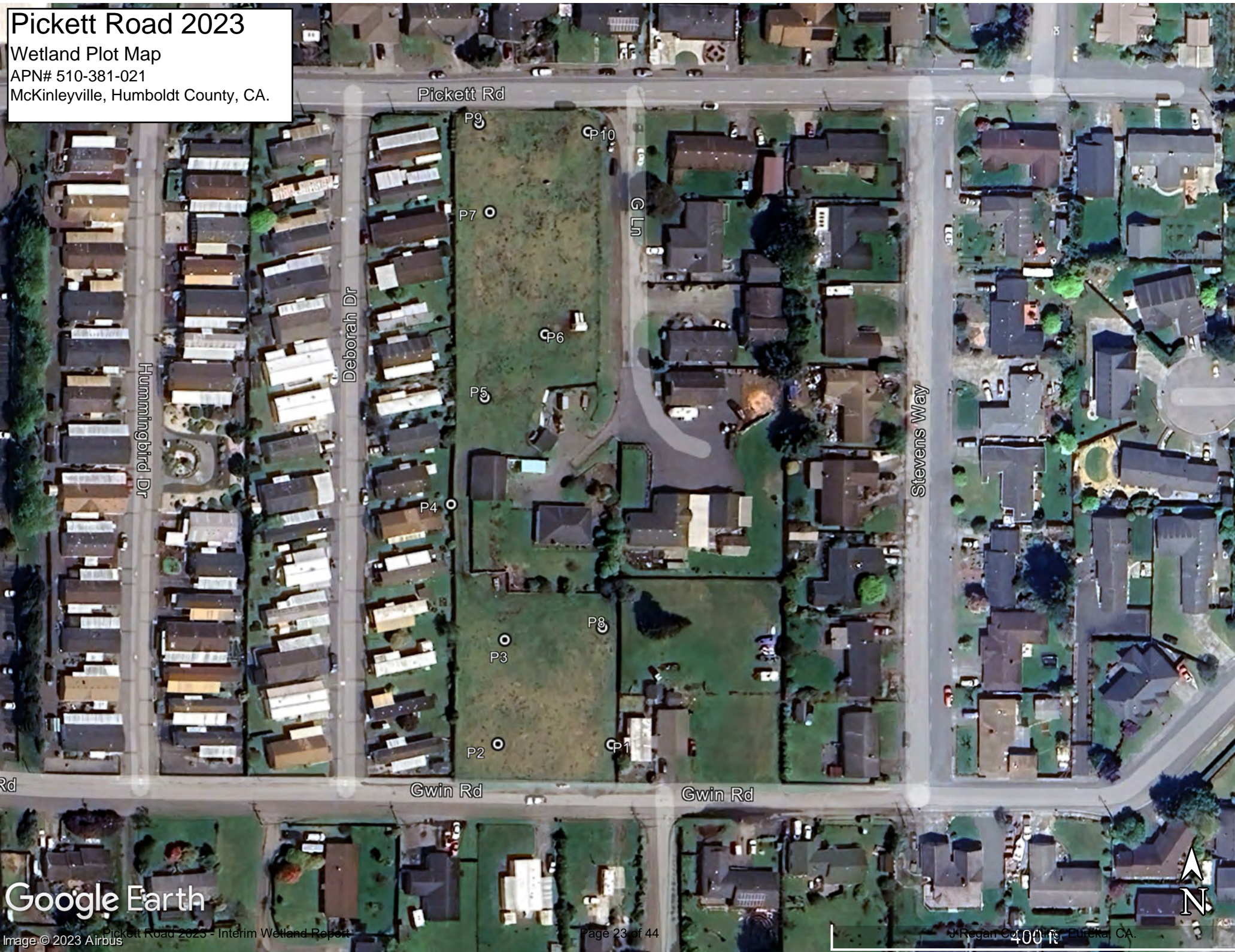


# Pickett Road 2023

Wetland Plot Map

APN# 510-381-021

McKinleyville, Humboldt County, CA.



Google Earth



**Attachment B**  
**ACOE Wetland Plot Forms**

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

Project/Site: PICKETT LANE City/County: McKinnerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO APN: 510-381-021 State: CA Sampling Point: 1  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 0%-1%  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + BROWN / GRASS</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1/3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = 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</b> (Plot size: <u>10m<sup>2</sup></u> )				
1. <u>Cotoneaster sp. (Seedlings)</u>	<u>12</u>	<u>Yes</u>	<u>NI</u>	
2. _____				
3. _____				
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>1m<sup>2</sup></u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
1. <u>Rumex acetosella</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Hypochaeris radicata</u>	<u>10</u>		<u>FACU</u>	
3. <u>Trifolium repens</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Eragrostis chilensis</u>	<u>8</u>		<u>FACU</u>	
5. <u>Grasses</u>	<u>50</u>	<u>Yes</u>	<u>*FACU</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>2%</u>				
Remarks: <u>* See graminoid list in report body 4/12 species are Sac, remainder are upland species. Consider SACU here</u>				

## SOIL

Sampling Point: 1

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>		
0-19"	10YR 3/3	100%				loam	
20"+	10YR 3/2	80%				loam	
	10YR 5/6	19%				Sandy clay loam	Bright soils, not reduced
	10YR 6/6	1%				"	

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

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

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

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

Remarks: Bright colored soil layer underlies site, similar to other McKinleyville sites. Not reduced but sometimes with hard contrasting concretions

## HYDROLOGY

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 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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

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

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

Remarks: same as soil

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

Project/Site: PICKETT LANE City/County: McKinnerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AAN: 510-381-021 State: CA Sampling Point: 2  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 02-12  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MOWN/GRAZED</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
= Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>101</u> (A) <u>385</u> (B) Prevalence Index = B/A = <u>3.8</u>
= Total Cover				
= Total Cover				
= Total Cover				
= Total Cover				
<b>Herb Stratum (Plot size: <u>1m<sup>2</sup></u>)</b>				
1. <u>Pumex acetosella</u>	<u>15</u>		<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
2. <u>Hypericum adpressum</u>	<u>10</u>		<u>FACU</u>	
3. <u>Taraxacum officinale</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Taraxacum officinale</u>	<u>5</u>		<u>FACU</u>	
5. <u>Grasses *</u>	<u>50+</u>	<u>Yes</u>	<u>FACU</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
= Total Cover				
= Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. _____				
_____				
<b>% Bare Ground in Herb Stratum _____</b>				
Remarks: <u>* See Report + Plot 1: 1/2 Grasses are FAC, remainder are FACU → UPL</u>				

## SOIL

Sampling Point: 2

**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>		
0-20"	10YR 3/2	100					loam/clay	
20"+	10YR 3/2	80%					clay loam (some sandy pit)	
	10YR 5/6	15%					"	
	10YR 6/6	5%					"	

<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)	

<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: Bright colored soils underlie un-reduced soils,

## 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 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? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

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

Remarks: FAILS FAC Neutral test

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

Project/Site: PICKETT LANE City/County: McKinnerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AA#: 510-321-021 State: CA Sampling Point: 3  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 0%-1%  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: <u>WINTER VISIT, VEGETATION LOW + MORN / GAZES</u>	

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

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>25</u> x 3 = <u>75</u> FACU species <u>70</u> x 4 = <u>280</u> UPL species _____ x 5 = _____ Column Totals: <u>95</u> (A) <u>355</u> (B)
Herb Stratum (Plot size: <u>1m<sup>2</sup></u> )				Prevalence Index = B/A = <u>3.7</u>
1. <u>Hypochaeris radicata</u>	<u>10%</u>		<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
2. <u>Tribulus repens</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Gasses*</u>	<u>60%</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>95%</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Woody Vine Stratum (Plot size: _____)				
1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>*See notes in plot 1 + report. 4/12 Gasses species are FAC, remainder are FACU → UPL</u>				



## SOIL

Sampling Point: 3

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>		
0-16"	10YR 3/2	100					loam	
17-20"	10YR 2/1	100					fine loam	Ash?
21 +	10YR 2/1	40%	10YR 4/6	40%			coarse sandy loam	bright sandy soil
			10YR 5/8	20%				hard rediet nodules

<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 ☒

Remarks:

Potentially site of burn pile in past  
Deeper soils w/ rediet features NOT REDUCED

## HYDROLOGY

Wetland Hydrology Indicators:

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

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                              |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)                               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   |

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Remarks:

Soils fac neutral test

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

Project/Site: PICKETT LANE City/County: McKinkerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AAN: 510-381-021 State: CA Sampling Point: 4  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 02-12  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MOWN / GRAZED</u> Plot 4 is on packed gravel, route between yards, along fence line		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>380</u> (B) Prevalence Index = B/A = <u>3.8</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>1m<sup>2</sup></u>)</b>				
1. <u>Hypochaeris radicata</u>	<u>10%</u>		<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
2. <u>Trifolium repens</u>	<u>20%</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Ranunculus vulgaris</u>	<u>10%</u>		<u>FACU</u>	
4. <u>Fragaria chiloensis</u>	<u>10%</u>		<u>FACU</u>	
5. <u>Garcesia *</u>	<u>50%</u>	<u>Y</u>	<u>FACU *</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. _____				
_____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> _____				
Remarks: <u>* Grass sp mown &amp; low. All species in botany report are FAC, rest are FACU → UPL</u> <u>all are non-native</u>				

## SOIL

Sampling Point: 4

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>		
0-13	10YR 3/2	100					Clay loam
14-20 <sup>+</sup>	10YR 5/4	40?					Sandy clay
	10YR 5/6	20?					
	10YR 4/3	40?					

<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)	

<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: No reduced matrix, bright sandy soils below warm brown soils.

## HYDROLOGY

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 checked="" 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 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 ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

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

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

Remarks: Site is in a snake created by travel between yards.

Soils SAC Neutral test

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

Project/Site: PICKETT LANE City/County: McKinnerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AA#: 510-381-021 State: CA Sampling Point: 5  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 02-12  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MOWN / GRAZED</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
				<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 = _____
= Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>1m<sup>2</sup></u>)</b> 1. <u>Hyacinth radicata</u> <u>15%</u> <u>Y</u> <u>FACU</u> 2. <u>Trifolium repens</u> <u>15%</u> <u>Y</u> <u>FAC</u> 3. <u>Fragaria chiloensis</u> <u>15%</u> <u>Y</u> <u>FACU</u> 4. <u>Grasses *</u> <u>50%</u> <u>Y</u> <u>FACU</u> 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> _____				<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>				
Remarks: <u>* Grass sp mown = from botanical survey 4/12 grass species are FAC, rest are FACU - UPL</u>				



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

Project/Site: PICKETT LANE City/County: McKinnleyville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO Address: 510-381-021 State: CA Sampling Point: 6  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 0%-1%  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + NO W/ GAZON</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = 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 = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
Herb Stratum (Plot size: <u>1m<sup>2</sup></u> )				
1. <u>Rhynchos sativus</u>	<u>15%</u>	<u>Y</u>	<u>NI</u>	
2. <u>Trifolium repens</u>	<u>15%</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Geranium dissectum</u>	<u>5%</u>		<u>NI</u>	
4. <u>Rumex acetosella</u>	<u>10%</u>		<u>FACU</u>	
5. <u>Hypericis radicata</u>	<u>10%</u>		<u>FACU</u>	
6. <u>Grasses *</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>105%</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>*Grasses mown, 4/12 identified species are FAC, rest are FACU - UPL, all non-native</u>				

Sampling Point: 6

## HYDROLOGY

Primary Indicators (minimum of one required; 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 Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

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

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

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

Remarks:

Fails the neutral test



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

Project/Site: PICKETT LANE City/County: McKinnerville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO Address: 510-381-021 State: CA Sampling Point: 7  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 02-12  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MORN/GAZES</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = 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 = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
Herb Stratum (Plot size: <u>1m<sup>2</sup></u> )				
1. <u>Leontodon saxatilis</u>	<u>5</u>		<u>FACU</u>	
2. <u>Hypochaeris radicata</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Taraxacum repens</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Rumex acetosella</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Geranium dissectum</u>	<u>5</u>		<u>NI</u>	
6. <u>Grasses *</u>	<u>50%</u>	<u>Y</u>	<u>FACU</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>*Grasses mown, from botanical report 4/12 grass sp are FAC, rest are FACU - Upl</u>				

Sampling Point: 7

## HYDROLOGY

Western Mountains, Valleys, and Coast – Version 2.0  
J Regan Consulting, Eureka, CA.

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

Project/Site: PICKETT LANE City/County: McKinnleyville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AA#: 510-381-021 State: CA Sampling Point: 8  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 0%-1%  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time-of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MORN/GAZED</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>75</u> x 4 = <u>300</u> UPL species _____ x 5 = <u>360</u> Column Totals: <u>95</u> (A) <u>360</u> (B) Prevalence Index = B/A = <u>3.78</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>1m<sup>2</sup></u>)</b>				
1. <u>Hypochaeris radicata</u>	<u>10%</u>		<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
2. <u>Taraxacum officinale</u>	<u>20%</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Rumex acetosella</u>	<u>15%</u>		<u>FACU</u>	
4. <u>Gnaphalium</u>	<u>50%</u>	<u>Y</u>	<u>FACU</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. _____				
_____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> _____				
Remarks: <u>* Grass mown: from botany report the grass sp. are FAC, rest are FACU-UPL all are non-native</u>				

## SOIL

Sampling Point: 8

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>		
0-19"	10YR 3/2	100%				loam	
20"	10YR 3/2	10%					
	10YR 4/6	80%	10YR 6/8	10%			Sandy clay loam w/ hard relict concretions
	10YR 6/8	10%					

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

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

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

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

Remarks: Hard relict concretions in bright sandy soils deeper in pit, not reduced NOT INDICATIVE OF Contemporary wetland setting.

## HYDROLOGY

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 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? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

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

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

Remarks: Focus Fac Neutral test

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

Project/Site: PICKETT LANE City/County: McKinnleyville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO AAS: 510-381-021 State: CA Sampling Point: 9  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 02-12  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2' slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MORN/GAZED * Lowest point on parcel *</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= 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: <u>10md</u>)</b>				
1. <u>Cotoneaster sp.</u>	<u>30%</u>	<u>Y</u>	<u>NI</u>	
2. <u>Vaccinium ovatum</u>	<u>15%</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Lonicera involucrata</u>	<u>5%</u>	_____	<u>FAC</u>	
= Total Cover				
<b>Herb Stratum (Plot size: <u>1m<sup>2</sup></u>)</b>				<b>Hydrophytic Vegetation Indicators:</b> ___ 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.
1. <u>Poa annua</u>	<u>3%</u>	_____	<u>FAC</u>	
2. <u>Hypochaeris radicata</u>	<u>10%</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Rumex acetosilla</u>	<u>10%</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Gersonia distachya</u>	<u>5%</u>	_____	<u>NI</u>	
5. <u>Gastrophysalis pinnatifida</u>	<u>50%</u>	<u>Y</u>	<u>FACU</u>	
= Total Cover				
<b>Woody Vine Stratum (Plot size: <u>10md</u>)</b>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Rubus ursinus</u>	<u>22</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
= Total Cover				
<b>% Bare Ground in Herb Stratum <u>15%</u></b>				
Remarks: _____				

## SOIL

Sampling Point: 9

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>		
0-8"	10YR 3/2	100				loam	
9-18"	10YR 3/2	60%	10YR 4/6	40%			
	10YR 4/6	40%					NOT A Redox Feature, Mixed Matrix

<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)	

<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: no depleted or reduced soils, brighter colors do not appear to be re-dox.

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

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

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

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

Remarks: Shallowly concave site, likely spot where cans rested  
Soils are Neutral test

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

Project/Site: PICKETT LANE City/County: McKinnleyville/Humboldt Sampling Date: 12/9/23  
 Applicant/Owner: VALADAO Address: 510-381-021 State: CA Sampling Point: 10  
 Investigator(s): J. REGAN Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): NONE Slope (%): 0%-1%  
 Subregion (LRR): A Lat: 40.9435 Long: -124.0958 Datum: WGS 84  
 Soil Map Unit Name: ARCATA and CANDY MOUNTAIN 0-2" slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>WINTER VISIT, VEGETATION LOW + MOWN/GAZED</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>85</u> x 4 = <u>340</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>385</u> (B) Prevalence Index = B/A = <u>3.85</u> <b>Hydrophytic Vegetation Indicators:</b> ___ 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.	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
_____ = Total Cover					
<b>Sapling/Shrub Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
<b>Herb Stratum</b> (Plot size: <u>1m<sup>2</sup></u> )					
1. <u>Hyperbaeis radicata</u>	<u>10%</u>		<u>FACU</u>		
2. <u>Leontodon saxatilis</u>	<u>8%</u>		<u>FACU</u>		
3. <u>Prunella vulgaris</u>	<u>5%</u>		<u>FACU</u>		
4. <u>Rumex acetosella</u>	<u>12%</u>	<u>Y</u>	<u>FACU</u>		
5. <u>Trifolium repens</u>	<u>15%</u>	<u>Y</u>	<u>FAC</u>		
6. <u>Grasses *</u>	<u>50%</u>	<u>Y</u>	<u>FACU</u>		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>100%</u> = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					
Remarks: <u>* Grass is mown, Grass species from botanical Survey are 4/12 species) no FAC, rest are FACU-UPL and all are non-native</u>					

Sampling Point: 10

## HYDROLOGY

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

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

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Remarks:

False Pos. Neutral test