

Aquatic Resources Delineation Report:

Survey Name: Humboldt County APN 216-271-013-000

APPS 11682



Survey Dates: August September 17, 2018 & April 21, 2021

KALIFORNIA GREEN
AKRES, LLC

Prepared for

Kalifornia Green Akres, LC.

Humboldt County APN 216-271-013-000

NCRWQCB WDID# 1B16571CHUM

CMMLUO APPS #11682

Prepared by

Claire Brown

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Natural Resources Management Corporation

1434 Third Street, Eureka, CA 95501

(707) 442-1735



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Summary

On behalf of landowner Kalifornia Green Akres, Claire Brown of Natural Resources Management Corporation conducted an investigation of aquatic resources and wetland delineation on Humboldt County parcel APN 216-271-013-000 on September 17, 2018, and April 21, 2021. The surveys were conducted in accordance with the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement: Western Mountains, Valleys and Coast Region (Version 2.0)*" (USACE, 1987 and 2010).

The purpose of these surveys were to identify and describe aquatic resources in relation to existing and proposed cannabis development. We delineated approximately 0.367 acres of three-parameter wetlands during the surveys, including approximately 0.172 acres of perennial palustrine emergent wetland, 0.045 acres of seasonal palustrine emergent wetland, 0.11 acres of artificial perennial pond, 0.012 acres of seasonal "problem" palustrine emergent wetland, and 0.037 acres of palustrine emergent wetland of unknown seasonal duration. Note that the wetlands delineated and mapped outside of the Study Area (Figures 4-7) were only assessed visually from a distance, and their true extent is unknown. (see Figures 4-7). The Study Area was established in relation to existing and proposed cannabis development and findings only reflect features within the boundaries of the Study Area, and do not reflect any presence or absence of potential Waters outside of the Study Area. See Table 1 for a summary of findings.

Some portions of the pre-existing (pre- January 1, 2016) outdoor cultivation sites located on the parcel are within the 50-foot wetland protection setbacks outlined by the 2015 North Coast Regional Water Quality Control Board's (NCRWQCB) Order No. 2015-0023 (Figure 7). These areas are referred to as "Areas to be Relocated" in Figure 7. These areas are proposed to be removed from their current location and relocated to environmentally superior relocation receiver sites.

Table 1. Summary of Findings

Map ID (Figure 7)	Aquatic Resource Type	Size (Acres)
1	Perennially Saturated Persistent Emergent Palustrine Wetland	0.109
7	Perennially Saturated Persistent Emergent Palustrine Wetland	0.063
4	Perennial Artificial Pond	0.101
2	Seasonally Saturated Persistent Emergent Palustrine Wetland	0.026
5	Seasonally Saturated Persistent Emergent Palustrine Wetland	0.008
3	Seasonally Saturated Persistent Emergent Palustrine Wetland	0.011
8	Seasonally Saturated Persistent Emergent Palustrine Wetland (Problem)	0.012
6	Wetland (Unknown Duration)	0.037

Introduction

The Study Area on Humboldt County APN 216-271-013-000 covers an approximately 3.5-acre area encompassing portions of the project parcel currently being used to grow cannabis. The purpose of this report is to identify and describe aquatic resources in relation to existing and proposed cannabis development.

Location

The Study Area area is located in Humboldt County, California, near the community of Alderpoint. The legal description of the site is T3S, R5E, SEC 27, HB&M; USGS Alderpoint quadrangle. See Figure 1.

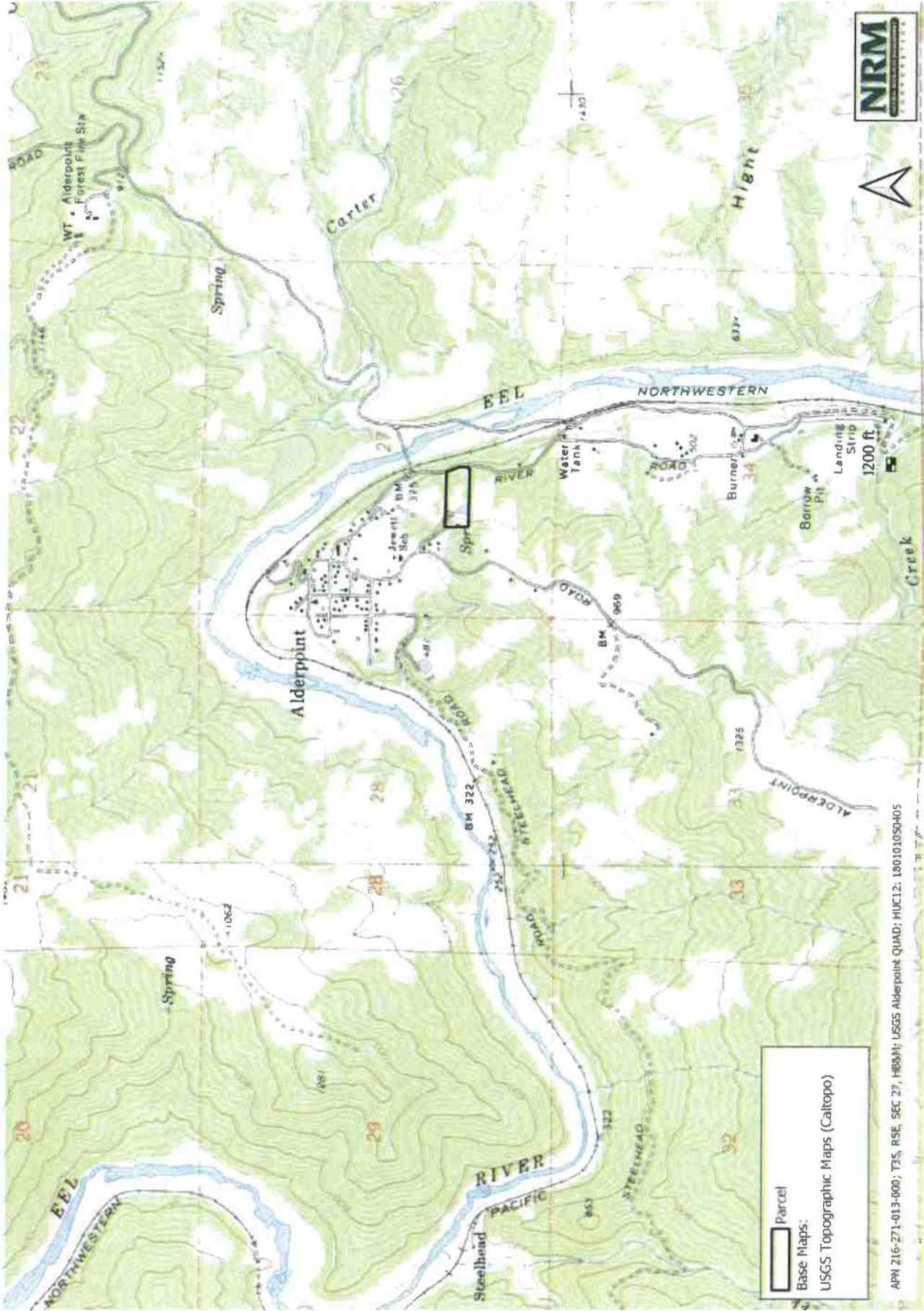


Figure 1. Parcel Location Map.



Figure 2. Study Area Overview Map: Orthographic

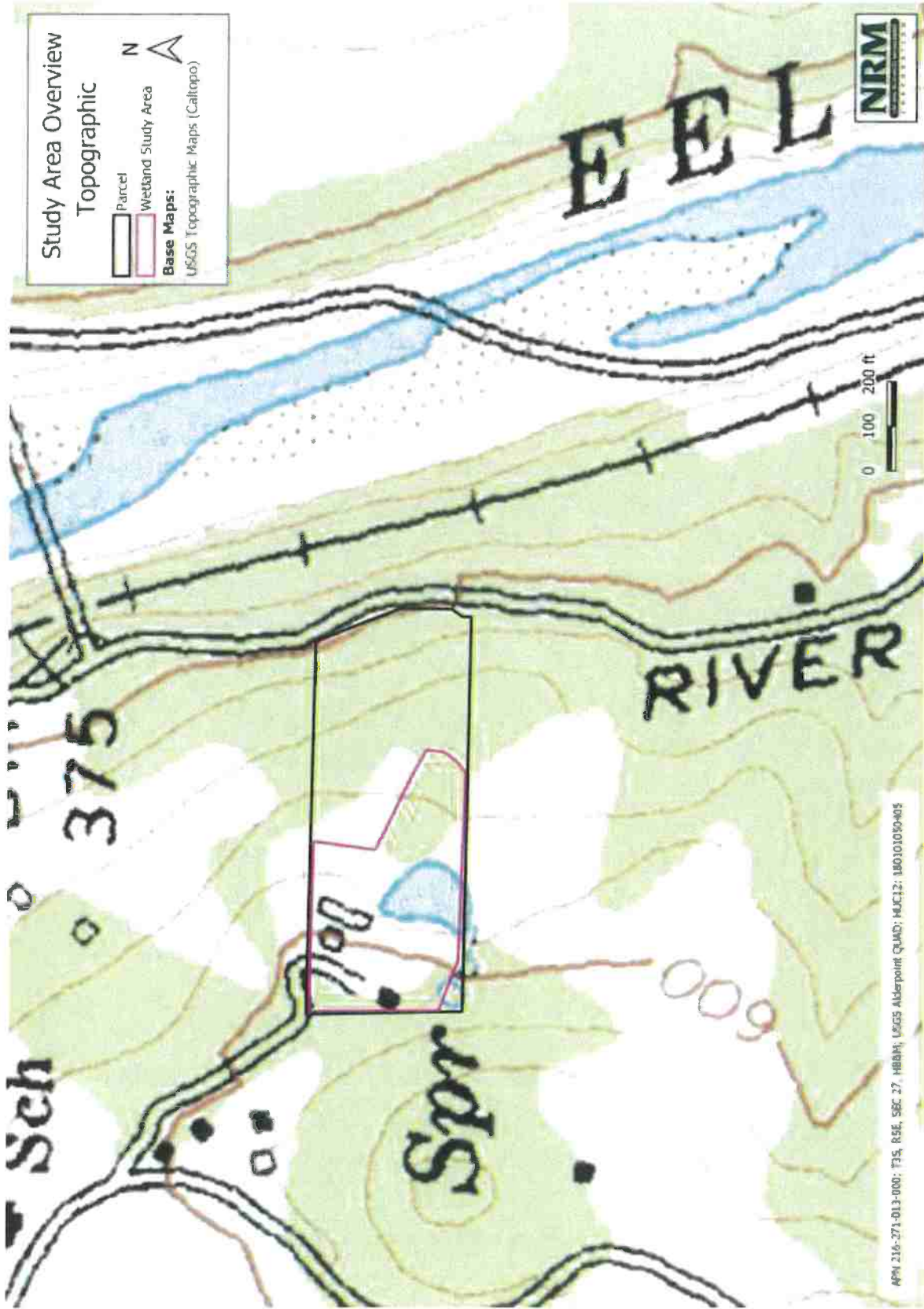


Figure 3. Study Area Overview Map: Topographic

Methods

NRM botanist and wetland scientist Claire Brown conducted field surveys on September 17, 2018, and April 21, 2021. These surveys were conducted in accordance with the three-parameter method of the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the 2010 Regional Supplement: Western Mountains, Valleys and Coast Region (Version 2.0) (USACE, 1987 and 2010). However, the first survey took place well within the dry season when hydrological indicators may not be present or may be difficult to interpret. The second survey took place in what should be the wet season on a typical year, but during drought conditions (accumulated rainfall in preceding months below normal).

A total of 10 wetland investigation plots were subjectively established within the Study Area. Plot placement was intended to identify the extent of wetland features present under current conditions. See Figures 4-5 (Wetland Delineation Maps) for location details. At each sampling plot, vegetation, hydrology, and soils were examined according to USACE delineation protocols.

The three-parameter method identifies a jurisdictional wetland (Waters of the United States) based on the presence of three wetland indicators: hydrophytes (plants adapted to anaerobic conditions resulting from a prolonged inundation with water), hydric soils (reduced soils resulting from a prolonged inundation with water), and wetland hydrology. Per Section 404 of the federal Clean Water Act, USACE is charged with regulating project activities that propose to dredge or fill a wetland resource. Standard USACE data forms for routine wetland determinations were completed for each sampling point and are attached in Appendix C.

Vegetation analysis

Dominant plant species were recorded at each sampling point and each species was assigned an indicator status using The National Wetlands Plant List – Western Mountains, Valleys & Coast (Lichvar et al., 2016). The indicator status assigned to a species designates the probability of that species occurring in a wetland, and are defined as follows:

- OBL= Obligate, almost always is a hydrophyte, rarely in uplands.
- FACW= Facultative Wetland, usually is a hydrophyte but occasionally found in uplands.
- FAC=Facultative, commonly occurs as either a hydrophyte or non-hydrophyte.
- FACU= Facultative Upland, occasionally is a hydrophyte, but usually occurs in uplands.
- UPL=Upland, rarely is a hydrophyte, almost always in uplands.

Species with a wetland indicator of OBL, FACW, and FAC are considered to be typically adapted for life in a wetland. Thus, species with these indicators were used in this wetland determination to decide whether a prevalence of hydrophytic vegetation existed at each sampling point.

Hydrology Analysis

Presence of wetland hydrological primary and/or secondary indicators, as listed in the USACE 1987 Wetland Delineation Manual and the 2010 Regional Supplement for Western Mountains, Valleys and Coast Region (Version 2.0), was noted at each sampling point (USACE, 1987; 2010). Factors influencing wetland hydrology include the frequency, duration, and seasonality of inundation and/or saturation. Primary field indicators of wetland hydrology include visual observation of inundation, saturation within the upper 12 inches of soil, observation of water marks, drift lines, or sediment deposits, and observation of oxidized root-hair channels with living roots still present in the upper 12 inches of soil. Secondary indicators of wetland hydrology include factors such as geomorphic position and the FAC-neutral test (i.e., dropping species rated as FAC from the vegetation analysis). One primary indicator or two secondary indicators must be present at a sampling point for the hydrology to be considered wetland (USACE, 2010).

Soils Analysis

A soil pit was dug at each sampling point to a minimum depth of 12 inches. In each pit, distinct soil layers were noted and measured, and soil texture and color were analyzed. Soil matrix colors and mottle colors were compared to the Munsell soil color chart (2017 edition) for color appearance (hue), strength (chroma), and lightness (value). Soils were considered hydric if they displayed any of the applicable primary indicators listed in the 2018 Natural Resources Conservation Service (NRCS) Field Indicators of Hydric Soils in the United States Version 8.2 (NRCS 2018). USACE data forms are included in Appendix C.

Mapping

The data collection during the plot investigations were extrapolated over the portion of the Survey Area of which they were representative. Plot locations and boundaries were documented in the field by measuring distance and azimuth from reference locations visible in aerial imagery and were marked using a Garmin eTrex 30 GPS unit. These points and measurements were used to generate a map in GIS software.

Existing Conditions:

Historic Land Use

The project area (and Study Area) has been used historically as a cannabis cultivation site, and the entire project footprint has been significantly disturbed and altered. The upper, western portion of the parcel was apparently the site of a historic hotel and brothel, in use since the late-1800's. There is an existing, perennial, artificially retained pond on the parcel,

Hydrology and Topography

The 20-acre project parcel occupies an east-facing slope above the mainstem Eel River. The parcel is between 400 feet and 600 feet in elevation. The mainstem Eel River lies approximately 300 feet downslope to the east.

The site of a pond (described above and in Findings) is depicted as a perennial spring and pond on the USGS topographic quadrangle map (Figure 3). This pond has no apparent stream inlet or outlet and therefore appears to be fed by a spring and possibly by an inlet culvert within a wetland. No other watercourses are mapped on the parcel. The pond is artificially bermed and ringed by a dirt fill access road. The pond drains through a culvert towards the neighboring parcel to the south.

As of April 21st, 2021, the accumulated to-date precipitation of the 2020-2021 water year at the Scotia NWS station was 26.51 inches (NOAA 2021). The “normal” accumulation for that period is 43.69 inches. The to-date accumulated precipitation was therefore approximately 60% of ‘normal.’ Total precipitation for the months of March and April were exceptionally low. March totals were just barely within one standard deviation of the 30-year mean, but the total rainfall in April was outside of (lower than) three standard deviations of the 30-year mean NOAA 2021).

Vegetation

The Study Area lies within a grassland portion of a regional mosaic of cismontane oak woodland, mixed evergreen forest, and foothill and valley grassland (Holland 1986). However, much of the Study Area is disturbed by both historic and recent agricultural activity. Most of the herbaceous vegetation on-site consists of ruderal, weedy species, with most areas dominated by fennel (*Foeniculum vulgare*, NL) and/or weedy pasture grasses such as tall fescue (*Festuca arundinacea*, FAC), harding grass (*Phalaris aquatica*, FACU) wild oat (*Avena barbata*, UPL), ripgut brome (*Bromus diandrus*, NL) and colonial bentgrass (*Agrostis capillaris*, FAC). The invasive shrub Himalayan blackberry (*Rubus armeniacus*, FAC) also dominates large areas.

However, the historic pond (described in Findings) and a good portion of the hillslope above the pond is dominated by thick stands of field horsetail *Equisetum arvense*, FACW), with patches of pennyroyal (*Mentha pulegium*, OBL), cattail (*Typha latifolia*, OBL) watercress (*Nasturtium officinale*, OBL) and nutsedge (*Cyperus eragrostis*, FACW). Himalayan blackberry is also dominant in some areas.

Soils

Soils within the Study Area are mapped by the Natural Resources Conservation Service (NRCS) as Map Unit 673—Coolyork-Yorknorth complex, 30 to 50 percent slopes (NRCS 2021) See NRCS soil map in Appendix C. The NRCS describes these soil series as follows:

- “The Coolyork series consists of very deep, moderately well drained soils formed in residuum and colluvium derived from chloritic schist, mudstone and sandstone. Coolyork soils are on mountains and slopes range from 5 to 75 percent. The mean annual precipitation is about 1500 mm and the mean annual air temperature is about 13 degrees C” (NRCS 2020).
- “The Yorknorth series consists of very deep, moderately well drained soils that formed in material weathered from chloritic schist and other sedimentary and metamorphic rocks. Yorknorth soils are on hills and mountains and have slopes of 2 to 50 percent. The mean

annual precipitation is about 1650 millimeters and the mean annual temperature is about 14 degrees C" (NRCS 2021).

Results

As stated above, the purpose of this investigation was to identify the extent of wetland and watercourse features in relation to existing and proposed cannabis cultivation infrastructure and activities. This wetland delineation took place both during the dry season (September 2018) and on during exceptionally dry springtime conditions (April 2021). Therefore, the hydrologic conditions at the site must be considered problematic.

We delineated approximately 0.37 acres of three-parameter wetlands during the surveys, including approximately 0.172 acres of perennial palustrine emergent wetland, 0.045 acres of seasonal palustrine emergent wetland, 0.11 acres of artificial perennial pond, 0.012 acres of seasonal "problem" palustrine emergent wetland, and 0.037 acres of palustrine emergent wetland of unknown seasonal duration. *Note that the wetlands delineated and mapped outside of the Study Area (Figures 4-7) were only assessed visually from a distance, and their true extent is unknown.*

The delineated wetlands are part of what appears to be a mosaic/complex of seep/spring-fed wetlands occurring along the southern parcel boundary and on the neighboring parcel to the south. These hillside seep/springs appear to occur where subsurface perched water tables/subsurface flow is directed (by breaks in slope or change in soil textures) to surface or near surface level at various points on the hillslope, saturating the upper soil profile and promoting the growth of hydrophytic vegetation. Some areas are perennially saturated, while others dry out seasonally.

See Figures 4-6 for wetland delineation map and wetland map identification (map ID).

Wetlands 1, 2 and 3 (Figure 6) all drain towards the berm ringing the artificial pond (map ID 4). This pond appears to have been built to capture and retain water from one or more of these seep/springs, and is the focal point for a concave portion of the hillslope. A 12" diameter culvert is positioned to inlet water from wetland 1 into the pond at high flows, and a second 12" diameter culvert is positioned to drain high-water pond overflow south onto the neighboring parcel. Wetland 1 is perennially saturated, with a high-water table and saturation within the upper 12 inches even in the dry season, meeting Hydrology Indicators A2 and A3, Geomorphic Position (D2) and Presence of Reduced Iron (C4). Soils within wetland 1 meet Hydric Soil Indicator Redox Dark Surface (F6) and Depleted Matrix (F3). Wetland map ID's 2 and 3 appear to dry out seasonally, at least in some years, and meet Hydric Soil Indicator Redox Dark Surface (F6). Wetland map ID's 1,2, and 3 are each dominated by field horsetail (*Equisetum arvense*, FAC) and Himalayan blackberry (FAC). This vegetation type is visually distinct from upland portions of the Study Area. Wetland 1 is also characterized by the presence of some wetland obligate plants at lower total cover, such as cattail (*Typha latifolia*, OBL) and watercress (*Nasturtium officinale*, OBL). The northern extent of wetland 2 is bounded by an existing dirt-surfaced road. The landform naturally shifts at that point, and it seems

the road is positioned at the natural wetland boundary. Plot 7 defines the upland condition on the other (north)side of the road.

The artificial pond (map ID 4) is characterized by open, standing water throughout the year. During the September 2018 visit, the pond edge was vegetated by a thick ring of cattails (*Typha latifolia*, OBL), but this vegetation had been removed by the time of the April 2021 visit. We assume that a sub-surface seep/spring feeds the pond, maintaining water levels through the dry season.

Wetland map ID 5 appears to be where water originating from hillside seeps/springs in wetlands 1 and 2 continues to drain south of the pond to join another portion of the wetland mosaic on the neighboring parcel to the south, represented by wetland 6. The true extent and seasonality of wetland 6 is unknown due to lack of access. Wetland 6 was identified and characterized by visual observation of surface water and wetland indicator vegetation, such as grey rush and pacific rush (*Juncus patens*, FACW and *Juncus effusus ssp. pacificus*, FACW). The mosaic represented by wetland 6 also appears to be fed by additional seep/springs upslope on the neighboring parcel and (seasonally) the overflow culvert outlet draining the south side of the artificial pond. This mosaic drains east toward Wetland 7 and a second artificial pond which exists on the neighboring parcel to the south.

Wetland 7 is a perennially saturated wetland along the north and west side of the neighbor's pond. Only the very northernmost part of the perennial wetland could be accurately mapped, where it crossed the parcel boundary and fence line. This wetland was characterized by a high water table (Hydrology Indicator A2), soil saturation to surface (Hydrology Indicator A3), presence of Hydric Soil Indicator Redox Dark Surface (F6) and dominance by hydrophytic vegetation, Himalayan blackberry (FAC) and pennyroyal (OBL). Across the fence to the south, the vegetation rapidly transitioned to dominance by a robust sedge (*Carex* sp.) and a willow thicket (*Salix* spp.), with visible surface water, along the edge of the pond.

Wetland 8 (Figure 7) represents a seasonal wetland associated with the boundary of the perennial wetland 7. This wetland is problematic because the presence of a large pile of discarded potting soil made it difficult to investigate, and a compacted roadbed made it difficult to delineate the northern extent. We had to rely on a landform and vegetation transition to define the northern boundary. However, we feel reasonably confident the wetland does not extend further to the north than depicted. This area was characterized by the presence of Hydric Soil Indicator Redox Dark Surface (F6), dominance by pennyroyal (OBL), fiddle dock (*Rumex pulcher*, FAC) and Himalayan blackberry (FAC) and the hydrology indicators Geomorphic Position (D2) and the Fac Neutral Test (D5). Additionally, there was soil saturation in a layer from 6 to 12 inches above a clay layer, indicating the presence of a seasonal perched water table. The depth of this layer would have been 0-6 were it not for the presence of 6 inches of deposited potting soil material on the surface.

See Figures 4-7.

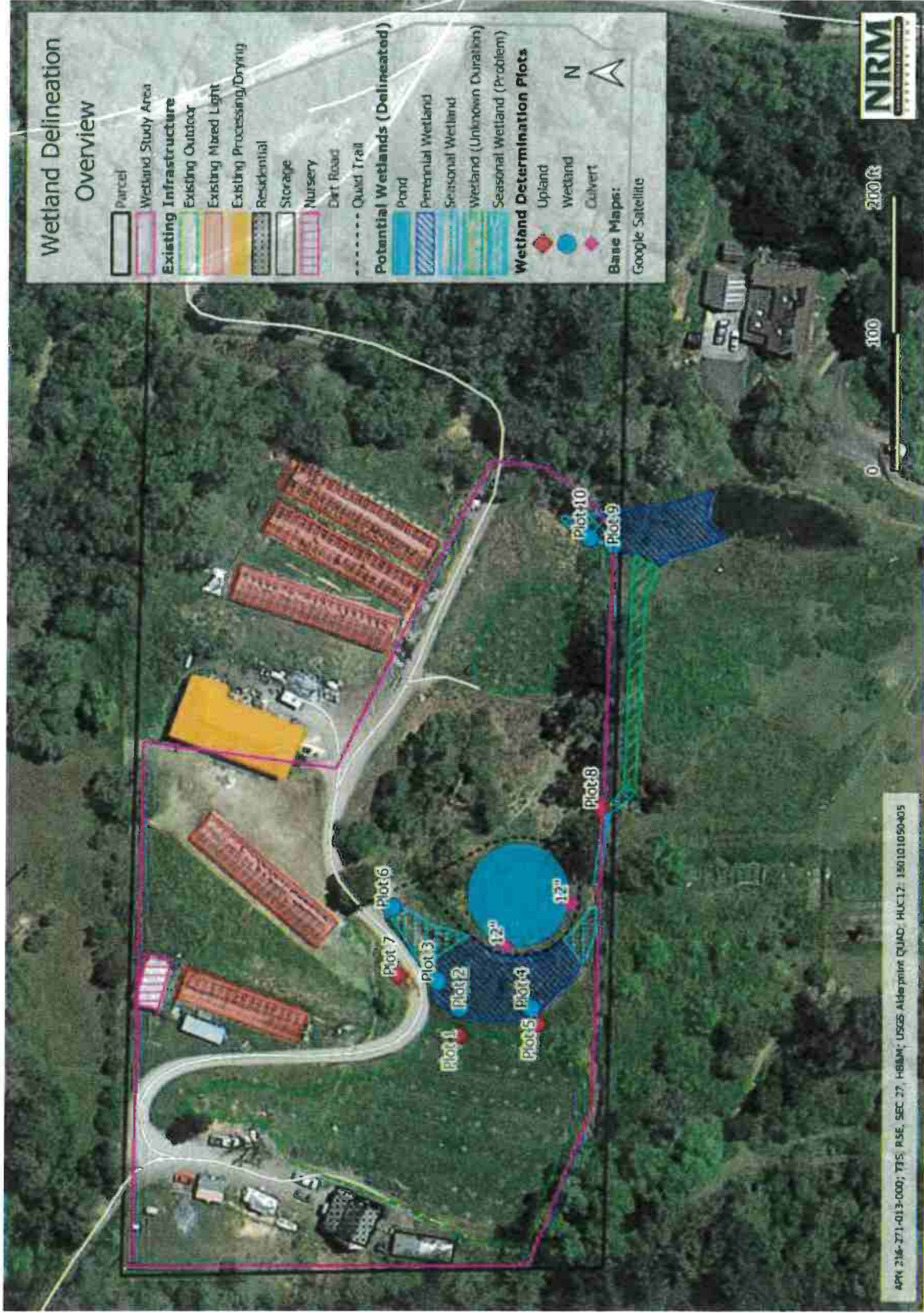


Figure 4. Wetland Delineation Overview



Figure 5. Wetland Delineation Map Zoom View.



Figure 6. Wetland identification (MapID) Reference Map.

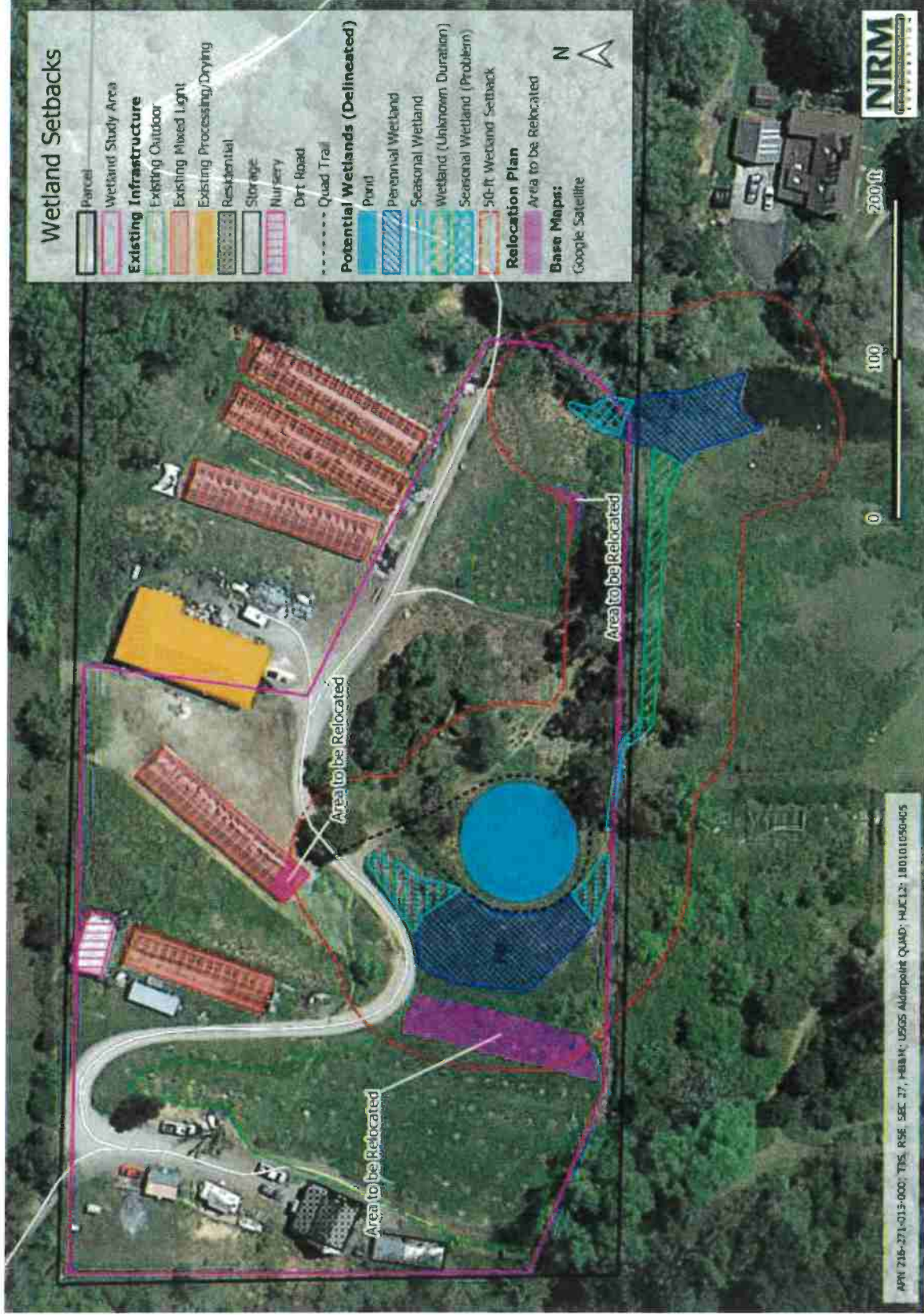


Figure 7. Wetland Protection Setbacks.

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Appendix A: Photos



Photo 1. Looking east towards pond. September 2018.

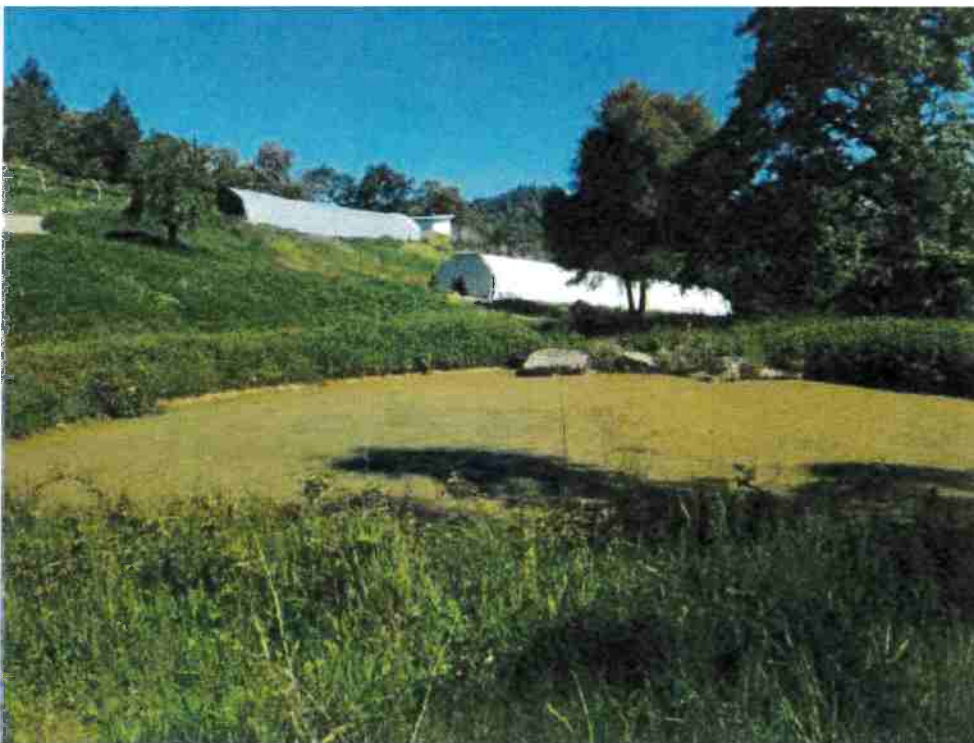


Photo 2. Looking northwest across pond. April 2021



Photo 3. Looking south across pond inlet culvert. April 2021



Photo 4. Looking east across pond outlet culvert. April 2021



Photo 5. Looking east at Plot 1. September 2018

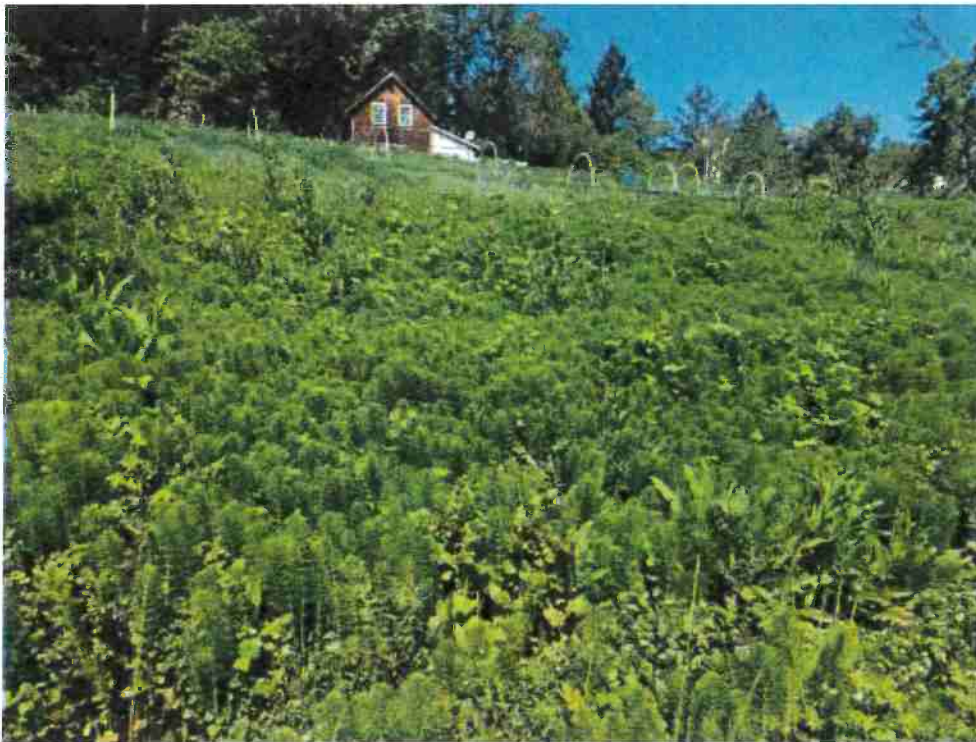


Photo 6. Looking west across wetlands 1, 2, 3. April 2021

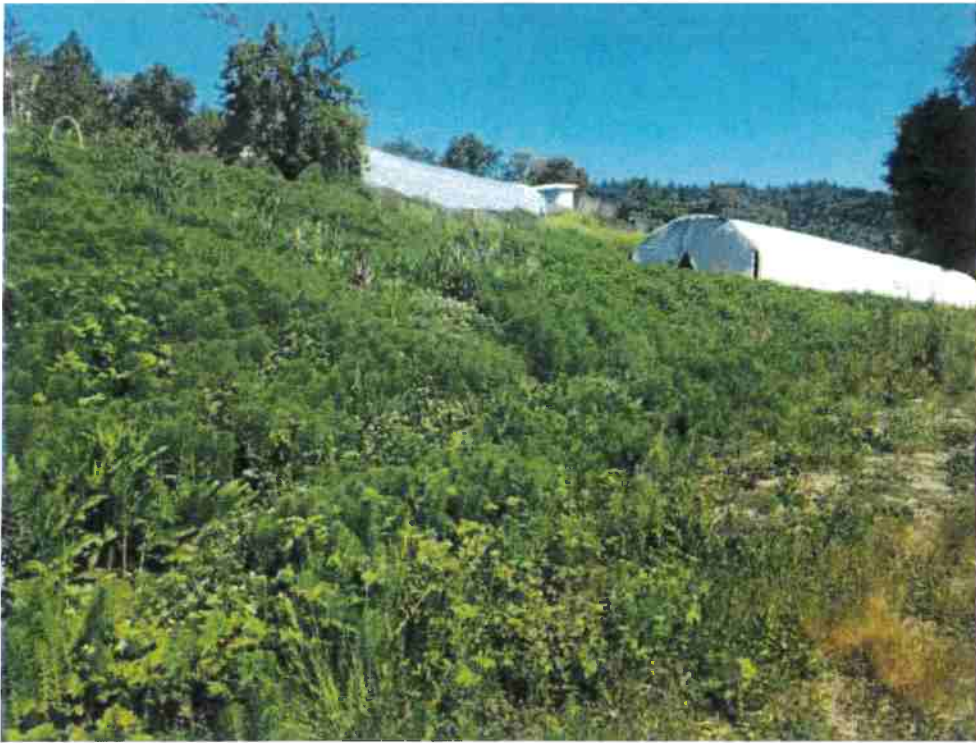


Photo 7. Looking north across Wetland 1 from pond berm. April 2021



Photo 8. Looking south towards wetlands 3 and 5. April 2021



Photo 9. Looking West towards Plot 6. April 2021



Photo 10. Looking west towards Plot 7, which is about 15 feet behind shovel. April 2021



Photo 11. Looking east at road between wetland 2 and cultivation area. April 2021



Photo 12. Looking west at Wetland 5-6 transition. September 2018



Photo 13. Looking west towards Plot 8, which is in trench. April 2021



Photo 14. Looking east at Plot 8 in trench, at shovel. April 2021



Photo 15. Looking south at Wetland 6 on neighboring parcel. September 2018



Photo 16. Looking south at Wetland 6 on neighboring parcel. September 2018



Photo 17. Looking south at Wetland 7. April 2021



Photo 18. Looking at Plot 9. April 2021



Photo 19. Looking north across Wetland 8. April 2021

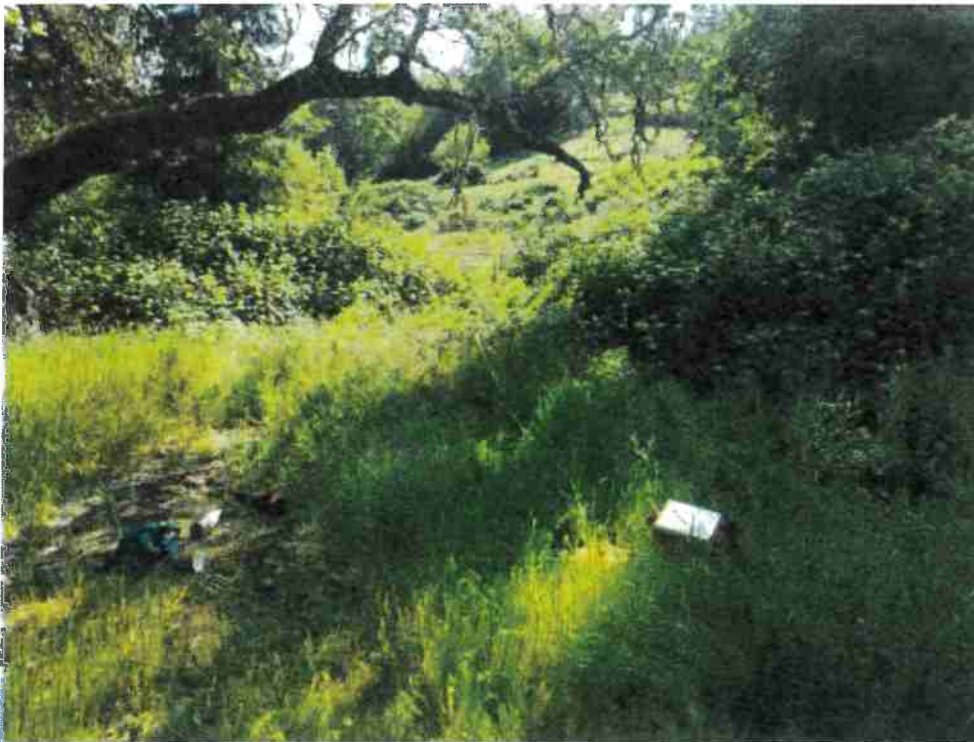
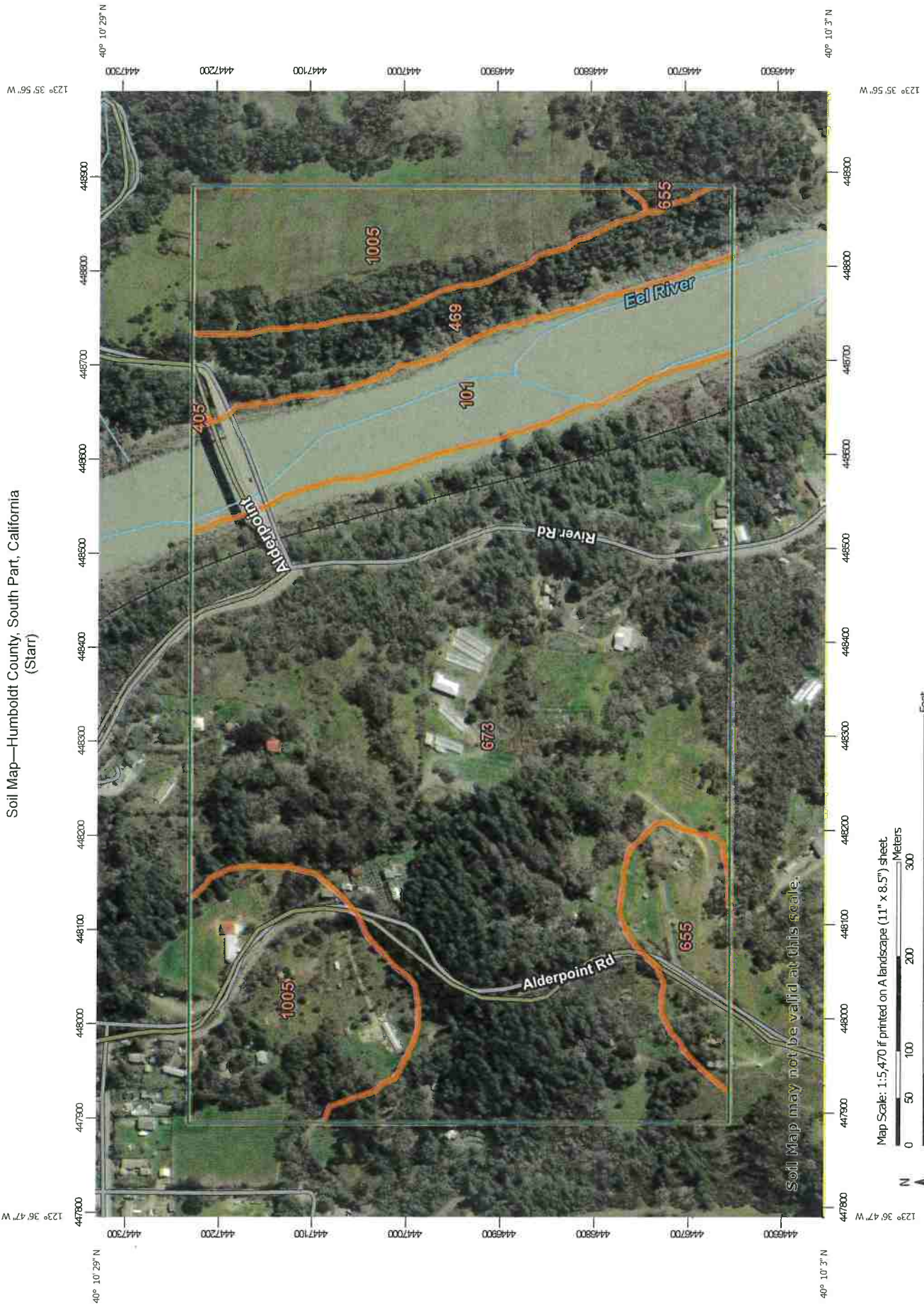


Photo 20. Looking south across Wetland 8 toward Wetland 7. April 2021

Appendix B: Natural Resources Conservation Service (NRCS) Web Soil Survey

Soil Map—Humboldt County, South Part, California
(Starr)



Map Scale: 1:5,470 if printed on A landscape (11" x 8.5") sheet.

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

Soil Map may not be valid at this scale.

MAP LEGEND

- 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
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Background**
 - Aerial Photography
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Humboldt County, South Part, California
 Survey Area Data: Version 9, Jun 1, 2020

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

Date(s) aerial images were photographed: Jul 30, 2014—Nov 6, 2017

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
101	Typic Udifluvents-Fluvents complex, 0 to 2 percent slopes	15.2	10.7%
405	Tannin-Wohly-Rockyglen complex, 30 to 50 percent slopes	0.1	0.1%
469	Tannin-Burgsblock-Rockyglen complex, 50 to 75 percent slopes	10.2	7.2%
655	Yorknorth-Witherell complex, 15 to 30 percent slopes	5.9	4.1%
673	Coolyork-Yorknorth complex, 30 to 50 percent slopes	84.2	59.1%
1005	Parkland, dry-Garberville, dry complex, 2 to 9 percent slopes	26.8	18.8%
Totals for Area of Interest		142.5	100.0%

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

Project/Site: APN 216-271-013-00 City/County: Humboldt Sampling Date: 9-17-18
 Applicant/Owner: Kalifornia Green Acres State: CA Sampling Point: 1-1622
 Investigator(s): Claire Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10
 Subregion (LRR): A Lat: 40.17094056 Long: -123.60728102 Datum: NAD83
 Soil Map Unit Name: 673 coolyork-jorknorth NWI classification: R5upF
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>point at very bottom of cultivation area upslope of "wetland" at pond</u> <u>* Dry season Delineation</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. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				OBL species <u>0</u> x 1 = _____
1. _____	_____	_____	_____	FACW species _____ x 2 = _____
2. _____	_____	_____	_____	FAC species _____ x 3 = _____
3. _____	_____	_____	_____	FACU species _____ x 4 = _____
4. _____	_____	_____	_____	UPL species _____ x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Equisetum arvense</u>	<u>98</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Juncus latifolia</u>	<u>10</u>	<u>N</u>	<u>NL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: <u>1m²</u>)				
1. <u>Rubus ursinus</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>Vegetation sampled immediately adjacent to pit, because up to a fence had been mowed recently.</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			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-10	7.5YR 4/4	97	7.5YR 5/8	1	C	PL	sm ² clay loam	
			"	2	C	M		
11-22	7.5YR 3/4	97	7.5YR 5/8	3	C	M	clay loam	

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

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

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

Indicators for Problematic Hydric Soils³:

³Indicators 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:

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 Depth (inches): _____

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

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

Wetland Hydrology Present? Yes _____ No

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

Remarks:

soil not incredibly dry but not exactly moist either
waited 3 hrs + for water table

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

Project/Site: APN 216-271-013-00 City/County: Humboldt Sampling Date: 9-17-18
 Applicant/Owner: Kalifornia Green Acres State: CA Sampling Point: 2-1623
 Investigator(s): Claire Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 16
 Subregion (LRR): A Lat: 40.17094049 Long: -123.60721126 Datum: NAD83
 Soil Map Unit Name: 673 coolyork - yorknorth NWI classification: R5UBF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>point ~ 10 ft downslope of pt 1 towards pond 1</u> <u>* Dry-season delineation</u>	

VEGETATION - Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum	(Plot size: _____)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
1.					Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
2.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
3.					Prevalence Index worksheet:	
4.					Total % Cover of:	Multiply by:
				= Total Cover	OBL species _____ x 1 = _____	
Sapling/Shrub Stratum	(Plot size: _____)				FACW species _____ x 2 = _____	
1.					FAC species _____ x 3 = _____	
2.					FACU species _____ x 4 = _____	
3.					UPL species _____ x 5 = _____	
4.					Column Totals: _____ (A) _____ (B)	
5.					Prevalence Index = B/A = _____	
				= Total Cover	Hydrophytic Vegetation Indicators:	
Herb Stratum	(Plot size: <u>1m²</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test Is >50% <input type="checkbox"/> 3 - Prevalence Index is $\geq 3.0^1$ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
1.	<u>Equisetum arvense</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2.		<u>10</u>				
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
				= Total Cover		
Woody Vine Stratum	(Plot size: <u>1m²</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
1.	<u>Rubus armeniacus</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>		
2.						
				= Total Cover		
% Bare Ground in Herb Stratum	<u>5</u>					
Remarks:						

SOIL

Sampling Point: 2 1623

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 ¹	Loc ²		
0-8	7.5YR 3/1		7.5YR 7/6	5	C	PL	sandy	
				4	C	M	clay/loam	
9-17	7.5YR 3/1		7.5YR 4/6	3	C	A	↓	
				4	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 checked="" type="checkbox"/> Redox Dark Surface (F6)	³ 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

Remarks: Matrix changes color rapidly

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 checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" 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 checked="" 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 Depth (Inches): _____

Water Table Present? Yes No Depth (Inches): 13 inches

Saturation Present? Yes No Depth (Inches): 0 inch

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: waited 2 hrs + for water table

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

Project/Site: APN 216-271-013-00 City/County: Humboldt Sampling Date: 9-17-17
 Applicant/Owner: Kalifornia Green Acres State: CA Sampling Point: 3-1624
 Investigator(s): Claire Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 10
 Subregion (LRR): A Lat: 40.17098553 Long: -123.60714074 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: R5UBF

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Point along road, outside of road influence</u> <div style="text-align: center;">★</div>	

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>2</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>100</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
Herb Stratum (Plot size: <u>1m</u>)				
1. <u>Equisetum arvense</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: <u>1m</u>)				
1. <u>Rubus armeniacus</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>2</u>				
Remarks:				

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 ¹	Loc ²		
0-5	7.5YR 3/3	98	7.5YR 5/8	2	C	PL	Sandy clay	
5-18	7.5YR 4/1	85	7.5YR 5/8	5	C	PL	Clay loam	
				10	C	M		

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

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

Indicators for Problematic Hydric Soils³:

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

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

³Indicators 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: *matrix changes color rapidly*

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

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

- 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)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 13.5 in (d)
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 2

Wetland Hydrology Present? Yes No

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

Remarks:

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

Project/Site: APN 216-271-013-00 City/County: Humboldt Sampling Date: 9-17-18
 Applicant/Owner: Kalifornia Green Acres State: CA Sampling Point: 4-1625
 Investigator(s): Claire Brown Section, Township, Range: /
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONCAVE Slope (%): 10
 Subregion (LRR): A Lat: 40.17079586 Long: -123.60720997 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: R5UBF

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: <p align="center" style="font-size: 1.2em;">Dry season Delineation</p>		

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. _____				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = _____ FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>105</u> (A) <u>330</u> (B) Prevalence Index = B/A = <u>3.14</u>
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
= Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				
1. <u>Equisetum arvense</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Pteridium Aquilinum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
3. _____	<u>5</u>			
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: <u>1m²</u>)				
1. <u>Rubus ursinus</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____				
= Total Cover				
% Bare Ground In Herb Stratum _____				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks: The presence of Rubus ursinus is problematic because it is rooted outside plots
The soil and hydrologic indicators are strong enough to warrant using
Problematic vegetation

SOIL

Sampling Point: 4 1625

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 ¹	Loc ²		
0-6	7.5YR 7/2	99	7.5YR 5/8	1	C	PL	Sandy clay	
7-21	7.5YR 4/1	92	7.5YR 5/8	3	C	PL	↓	
				5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ 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

Remarks: matrix color changes rapidly

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 checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (Inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (Inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (Inches): <u>05</u>	

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

Remarks: waited 2 hrs for water table, clay too heavy for free water?

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

Project/Site: APN 216-271-013-00 City/County: Humboldt Sampling Date: 9-17-18
 Applicant/Owner: Kalifornia Green Acres State: CA Sampling Point: 5-1626
 Investigator(s): Claire Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 19
 Subregion (LRR): A Lat: 40.17078253 Long: -123.60725068 Datum: _____
 Soil Map Unit Name: 673 NWI classification: R5UBF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil N, or Hydrology Y 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: <p align="center"><u>Dry season Delineation</u></p>			

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<u>Tree Stratum</u>	<u>(Plot size: _____)</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
1. _____					Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
3. _____					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
4. _____					
= Total Cover					
<u>Sapling/Shrub Stratum</u>	<u>(Plot size: _____)</u>				
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
= Total Cover					
<u>Herb Stratum</u>	<u>(Plot size: <u>1m²</u>)</u>				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Backen fern</u>		<u>75</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Epipactis atrorubens</u>		<u>5</u>		<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
= Total Cover					
<u>Woody Vine Stratum</u>	<u>(Plot size: <u>1m²</u>)</u>				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. <u>Rubus ursinus</u>		<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____					
= Total Cover					
% Bare Ground In Herb Stratum _____					
Remarks:					

SOIL

Sampling Point: **51426**

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 ¹	Loc ²		
0-6	7.5YR 4/3		7.5YR 5/8	1	C	PL	Sandy clay	
7-13	7.5YR 3/2		7.5YR 5/8	1	C	PL		
14-20	7.5YR 3/2		7.5YR 5/8	2	C	PL		
				1	C	M		

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

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

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

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (Inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (Inches): _____
 Water Table Present? Yes _____ No **X** Depth (Inches): _____
 Saturation Present? Yes **X** No _____ Depth (Inches): **15**

Wetland Hydrology Present? Yes _____ No **X**

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

Remarks:

Soil moist, but not saturated till 15 inches

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

Project/Site: APN 216-271-013-00 City/County: _____ Sampling Date: 4-21-2021
 Applicant/Owner: K.G.A. State: CA Sampling Point: 6
 Investigator(s): Clare Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): CONCAVE Slope (%): 5
 Subregion (LRR): A Lat: 40.17107902 Long: -123.60674733 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: NONE

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>Plot in 'Ditch' created by band berm access Rd prism</u> <u>* excessively dry year - drought condition</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100</u> (A/B)
1. _____				
2. _____				
3. _____				
= Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10 m²</u>)				
1. <u>Rubus armeniacus</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	
2. _____				
3. _____				
= Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Equisetum arvense?</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Rumex c.f. asper</u>	<u>1</u>	<u>N</u>		
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point 6

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 ¹	Loc ²		
0-4	7.5YR3/2		5YR4/6	2	C	M	clay loam	moist
4-6	7.5YR3/2		5YR4/6	5	C	PL	clay loam	
6-8	7.5YR3/2		7.5YR4/1	2	D	PL	sandy clay loam	
			5YR4/6	10	C	PL/M		
8-20	10YR4/8	60	7.5YR4/1	5	D	PL/M	clay	
			10YR5/2	40				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 checked="" type="checkbox"/> Redox Dark Surface (F6)	³ 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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<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 checked="" 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): 58

Wetland Hydrology Present? Yes No

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

Remarks: upper 8 inches moist, above saturation level
Hydrology problematic due to drought

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

Project/Site: APN 216-271-013 City/County: _____ Sampling Date: 4-21-2021
 Applicant/Owner: K.G.A. State: CA Sampling Point: 7
 Investigator(s): Clare Brown Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 8
 Subregion (LRR): A Lat: 40.17106812 Long: -123.60712869 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation Y, Soil N, or Hydrology Y 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 <u>X</u> No _____ 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>*FAC dominant - area may have been partially grass in past</u> <u>Drought conditions</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>2</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>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				
1. <u>Phalaris aquatica</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Poa palustris</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Festuca arundinacea</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Geranium dissectum</u>	<u>1</u>		<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>96</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: 7

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 ¹	Loc ²		
0-4	7.5YR 3/3	100					loam	← profile contains inclusions of rock - sandstone sub soil (B)
4-12	7.5YR 4/6	100					sandy clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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)	

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Soil too hard to dig deeper - area appears to have been manipulated (terraced?) in part, B horizon close to surface

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<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 _____ Depth (inches): _____

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

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks: should be considered dry season due to drought conditions in months prior

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

Project/Site: APN 216271-013 City/County: _____ Sampling Date: 4-21-2021
 Applicant/Owner: K.G.A. State: CA Sampling Point: 8
 Investigator(s): Claire Braun Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): CONCAVE Slope (%): 10
 Subregion (LRR): A Lat: 40.17066208 Long: -123.60668746 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X A
 Are Vegetation N, Soil N, or Hydrology Y naturally problematic? A (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>Drought conditions A</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. _____				Prevalence Index worksheet:	
= Total Cover				Total % Cover of:	Multiply by:
OBL species _____ x 1 = _____					
FACW species _____ x 2 = _____					
FAC species _____ x 3 = _____					
FACU species _____ x 4 = _____					
UPL species _____ x 5 = _____					
Column Totals: _____ (A) _____ (B)				Prevalence Index = B/A = _____	
Hydrophytic Vegetation indicators:					
___ 1 - Rapid Test for Hydrophytic Vegetation					
___ 2 - Dominance Test Is >50%					
___ 3 - Prevalence Index is ≤3.0 ¹					
___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)					
___ 5 - Wetland Non-Vascular Plants ¹					
___ Problematic Hydrophytic Vegetation ¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>					
Remarks:					

Sapling/Shrub Stratum (Plot size: <u>10m²</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Prunus sp (plum)</u>	<u>41</u>	<u>N</u>			
2. <u>Rubus arvensis</u>	<u>41</u>				
3. _____					
4. _____					
5. _____					
<u>41</u> = Total Cover					
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Anthoxanthum odoratum</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>		
2. <u>Festuca arundinacea</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>		
3. <u>Vilcainoa setosa</u>	<u>1</u>	<u>N</u>	<u>UPL</u>		
4. <u>Phalaris aquatica</u>	<u>10</u>	<u>N</u>	<u>FACU</u>		
5. <u>Lathyrus latifolius</u>	<u>5</u>	<u>N</u>			
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>66</u> = Total Cover					
Woody/Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____					
2. _____					
= Total Cover					
% Bare Ground in Herb Stratum _____					

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 ¹	Loc ²		
0-4	7.5YR3/1	100					Clay loam	
4-10	7.5YR3/1							
10-12	7.5YR2.5/1		5YR4/1	1	C	PL		Buried A horizon?
12-15	7.5YR2.5/1		5YR4/6	5	C	PL		
15-20	7.5YR2.5/1		5YR4/6	5	C	PL		* layer of large river sand
20-23	10YR5/2	40					clay	angular rock
	10YR4/6	60						B Horizon

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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)	³ 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

Remarks: *redox concentrations too deep in profile to be hydric soil*

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<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 Depth (Inches): _____

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

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

Wetland Hydrology Present? Yes _____ No

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

Remarks: *fit in long trench dug for center line - entire length ~ 23-24" deep - dry along entire length. However, hydrology is problematic due to drought*

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

Project/Site: APN 216 271 013 City/County: _____ Sampling Date: 4-21-2021
 Applicant/Owner: K.G.A State: CA Sampling Point: 9
 Investigator(s): Claire Brown Section, Township, Range: CONNER
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): CONCAVE Slope (%): NAD83
 Subregion (LRR): A Lat: 40.1706411 Long: -123.60600191 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes _____ 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>plot directly adjacent to fence line - on other side of fence ~ 3 feet south, there is surface water under a patch of tall grass. Drought + Conditions</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>2</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>100</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>1m²</u>)				Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. _____				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____				
4. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____				
<u>75</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Herb Stratum (Plot size: _____)				
1. <u>Mercurialis perennis</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
2. <u>Epilobium ciliatum</u>	<u>5</u>	<input checked="" type="checkbox"/>		
3. <u>Cardamine hirsuta</u>	<u>1</u>	<input checked="" type="checkbox"/>		
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>31</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
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 ¹	Loc ²		
0-4	10YR ² /1	100					loam	
4-12	N ^{2.5} /1	95	10YR ³ /6	5	C	PL	clay	15-20% sandstone inclusions - color 5YR ⁴ /6

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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: *Soil is wet at loose to get good profile deeper*

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

Field Observations:

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

Water Table Present? Yes No Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0

Wetland Hydrology Present? Yes No

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

Remarks: *soil oxidizing to brown*
watch 30m for water table

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

Project/Site: APN 216 271 013 City/County: _____ Sampling Date: 4-21-2011
 Applicant/Owner: K.G.A. State: CA Sampling Point: 10
 Investigator(s): Clare Ben Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): ~5
 Subregion (LRR): A Lat: 40.17069064 Long: -123.60598459 Datum: NAD83
 Soil Map Unit Name: 673 NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation N, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation N, Soil Y, or Hydrology Y 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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes _____ No _____	
Remarks: <u>~15 ft from plot 9 Drought conditions thick layer of discarded potting soil over site - also, area compacted as road in past</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>100</u> (A/B)
1. _____				
2. _____				
3. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10m²</u>)				
1. <u>Rubus</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. _____				
3. _____				
<u>40</u> = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is $\leq 3.0^1$ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Geranium dissectum</u>	<u>2</u>			
2. <u>Mercurialis perennis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Rumex pulcherrimus</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Galium aparine</u>	<u>1</u>			
5. <u>Carduus arvensis</u>	<u>2</u>			
6. <u>Poa pratensis</u>	<u>2</u>			
7. _____				
8. _____				
9. _____				
10. _____				
<u>42</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____ = Total Cover				
Remarks: _____				

SOIL

Sampling Point: 10

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 ¹	Loc ²		
0-6								Layer of potting soil/perlite
6-10	10YR 3/1		10YR 3/6	2	C	PL	loam	
10-12	10YR 3/1		7.5YR 4/4	2	C	M	clay loam	
			10YR 4/1	1	D	M		
12-18	N 2.5/1		10YR 3/6	5	C	PL/M	clay	15-20% sandstone inclusions

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

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

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	
	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *very difficult to dig below 18"*

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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

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

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

Saturation Present? Yes No Depth (inches): 6-12

(Includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: *hydrology problematic due to drought* *layers 6-10 and 10-12 are saturated*
12-18 moist