



## Biological Resources Assessment

Northridge Road - APN: 303-270-028

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## LIST OF ABBEVIATIONS

Army Corps	U.S Army Corps of Engineers
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ESA	Endangered Species Act
FP	Fully Protected
G	Global Rarity Rank
MBTA	Migratory Bird Treaty Act
S	State Rarity Rank
SMA	Streamside Management Area
SMAWO	Humboldt County Streamside Management Areas and Wetlands Ordinance
SSC	Species of Special Concern
USDA, NRCS	United States Department of Agriculture, Natural Resource Conservation Service
Water Board	State Water Resources Control Board
WL	Watch List

## SUMMARY

This report was prepared for APN: 303-270-028 on Northridge Drive to provide information on biological resources needed to complete the environmental review of the project.

The parcel is predominantly a mowed and maintained field with non-native vegetation surrounded on three sides by redwood forest.

The redwood forest is potential habitat for Northern spotted owl (NSO). A variety of other birds listed by the California Department of Fish and Wildlife (CDFW) or that are protected by the Migratory Bird Treaty Act (MBTA) could potentially nest in trees or other vegetation. Bats could also roost in trees on the parcel. The forest is also habitat for fisher (*Pekania pennanti*), Humboldt mountain beaver (*Aplodontia rufa humboldtiana*), Sonoma tree vole (*Arborimus pomo*), and North American porcupine (*Erethizon dorsatum*). Western bumble bee (*Bombus occidentalis*) or obscure bumble bee (*Bombus caliginosus*) could nest in old rodent burrows or similar areas.

There is an approximately 4,425 square-foot wetland at the base of the slope in the eastern portion of the property.

The proposed lots include enough building area to avoid the wetland setback and habitat for special status wildlife except for nesting birds. Provided impacts to nesting birds are avoided by either conducting nesting birds surveys prior to any tree removal or conducting any tree removal outside the nesting season, the project has a less than significant potential to impact sensitive biological resources.

## 1. INTRODUCTION

This biological assessment was conducted on APN: 303-270-028 to collect information on biological resources required to complete environmental review of the project. This report addresses special status plants, sensitive natural communities, special status wildlife, and aquatic resources.

The project includes a Minor Subdivision the 1.67-acre parcel into four smaller parcels planned for single family residential development.

## 2. DEFINITIONS

### 2.1. Special Status Plants

Special status plants include those listed as rare, threatened, or endangered under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and those with considered to meet the criteria of rare or endangered under California Environmental Quality Act (CEQA) Guideline §15380 (d). In practice, plants with CRPRs of 1A, 1B, 2A, and 2B are

considered to meet the criteria. Plants with CRPRs of 3 and 4 are generally not considered to meet the criteria or warrant special consideration unless there are special attributes of the population.

## 2.2. Special Status Natural Communities

Special status natural communities are communities with limited distribution that may be vulnerable to environmental impacts. Updated information on California natural communities, including rarity rankings, is provided in *A Manual of California Vegetation Online Edition* (CNPS 2023a). Natural communities with G or S ranks of 3 or lower are considered sensitive by CDFW.

## 2.3. Special Status Wildlife

Special status wildlife includes those listed or proposed for listing under the ESA and/or the CESA. CDFW Species of Special Concern (SSC), Fully Protected (FP), Watch List (WL), birds protected by the MBTA, Western Bat Working Group Priority Species, and other species with local or biological significance are also given special consideration under CEQA.

## 2.4. Aquatic Resources

### 2.4.1. Waters of the United States

Waters of the United States are regulated by the U.S Army Corps of Engineers (Army Corps) under the Clean Water Act. Waters of the United States include, but are not limited to, territorial seas, waters used for interstate or foreign commerce and their tributaries, and adjacent waters, including wetlands.

Army Corps jurisdiction in waters such as creeks and rivers includes the area below the ordinary high water mark, which is the line on the bank established by fluctuations of water that leave physical characteristics such as a distinct line on the bank, shelving, destruction of terrestrial vegetation, and presence of debris.

The Army Corps defines wetlands as:

“... areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

This definition requires that an area has indicators of all three wetlands parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) to be considered wetland.

### 2.4.2. Waters of the State

Waters of the state are regulated by the State Water Resources Control Board (Water Board) under the Porter-Cologne Water Quality Control Act. Waters of the state are defined as:

"... any surface water or groundwater, including saline waters, within the boundaries of the state."

The Water Board's definition of a wetland is:

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

This definition also requires that an area have all three parameters to be considered wetland.

#### 2.4.3. Streamside Management Areas

The Humboldt County Streamside Management Areas and Wetlands Ordinance (SMAWO) recognizes Streamside Management Areas (SMAs) along all streams and wetlands.

The SMAs for streams are defined as:

"One hundred (100) feet, measured as the horizontal distance from the top of bank or edge of riparian drip-line whichever is greater on either side of perennial streams."

"Fifty (50) feet, measured as the horizontal distance from the top of bank or edge of riparian drip-line whichever is greater on either side of intermittent streams."

The setbacks for wetlands are defined as:

Seasonal wetlands = fifty (50) feet

Perennial wetlands = one hundred fifty (150) feet

### **3. ENVIRONMENTAL SETTING**

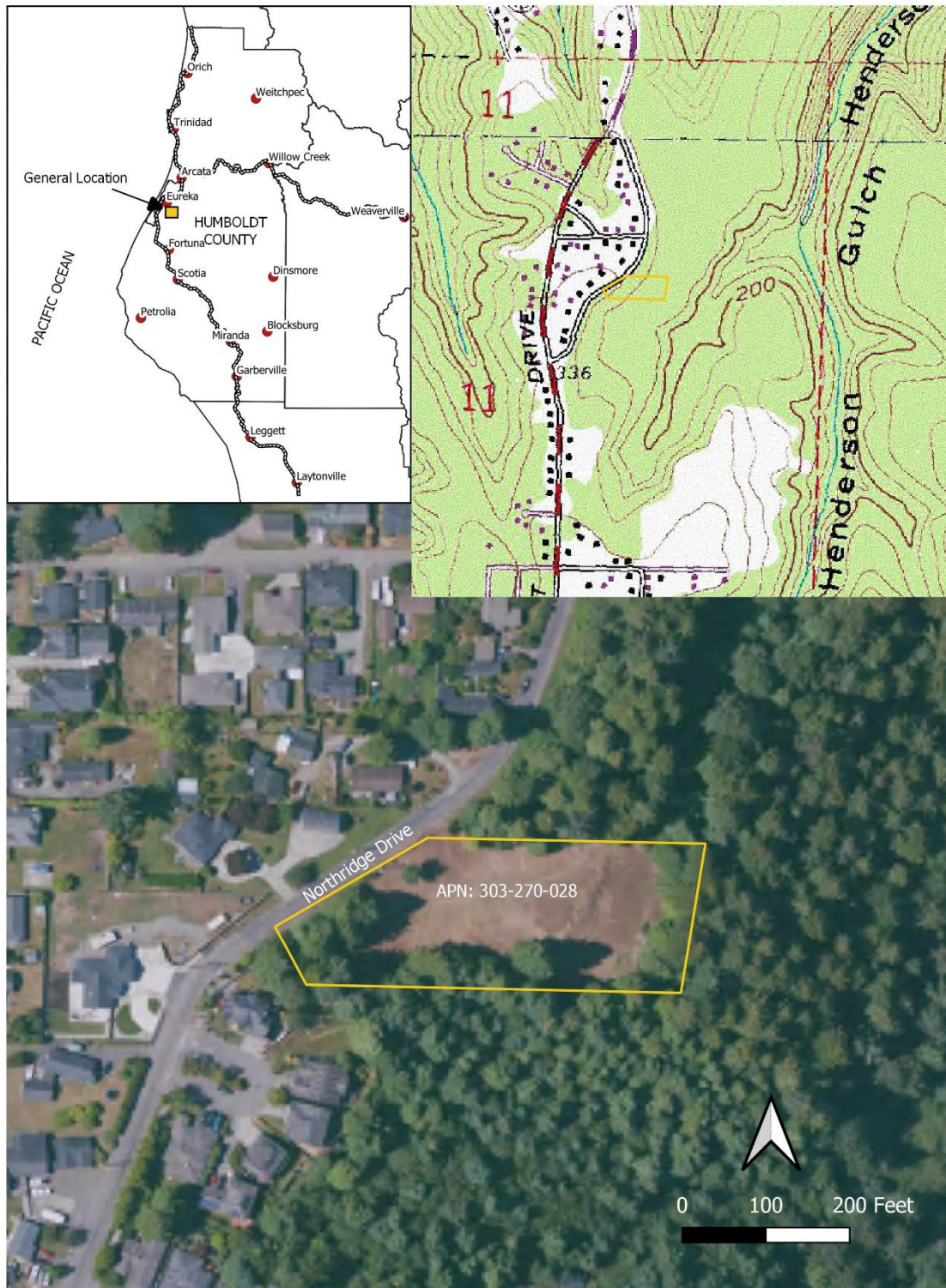
#### **3.1. Project Location**

The parcel is located on Northridge Drive on the Fields Landing USGS quadrangle (Section 11, T4N, R1W) in Humboldt County (Figure 1).

#### **3.2. Soil, Topography, and Hydrology**

The soil type mapped in the project area is Salmoncreek-Tepona-Rootcreek complex (USDA, NRCS 2023). The soil is derived from siltstone and marine deposits from sedimentary rock. Most of the parcel is a relatively flat terrace that drops sharply along the southern and eastern parts of the property. The elevation is approximately 290-330 feet above sea level. The parcel is above Henderson Gulch in the Ryan Creek Watershed. Ryan Creek is a tributary of Humboldt Bay.

Figure 1. Location Map.



### 3.3. Vegetation

Most of the parcel is a mowed and maintained open field with mostly non-native vegetation. Common plants include sweet vernal grass (*Anthoxanthum odoratum*), tall fescue (*Festuca arundinacea*), soft chess (*Bromus hordeaceus*), California blackberry (*Rubus ursinus*), Himalayan blackberry (*Rubus armeniacus*), and pampas grass (*Cortaderia jubata*). The maintained field is bordered by redwood (*Sequoia sempervirens*) forest. There is also a Sitka spruce (*Picea sitchensis*) component. Common understory plants include huckleberry (*Vaccinium ovatum*), sword fern (*Polystichum munitum*), and lady fern (*Athyrium filix-femina*). There is a small wetland at the base of the slope in the eastern part of the parcel with reed canary grass (*Phalaris arundinacea*), giant horsetail (*Equisetum telmateia*), small flowered bullrush (*Scirpus microcarpus*), and common rush (*Juncus effusus*).

## 4. METHODS

### 4.1. Scoping

Lists of special status plants (Appendix A) and wildlife (Appendix B) that could potentially occur in or near the project area were generated by consulting (Fields Landing 9 quadrangle search) the *California Natural Diversity Database* (CDFW 2023a, 2023b, 2023c) and the *CNPS Inventory of Rare and Endangered Plants* (CNPS 2023b). A list of special status natural communities that occur in Northern California queried from *A Manual of California Vegetation Online Edition* (CNPS 2023a) is provided in Appendix C.

### 4.2. Site Visits/Botanical Survey

The parcel was visited on April 15 and June 15, 2023, to conduct the botanical survey, assess the habitat for special status wildlife, and identify aquatic resources. Mr. Wear has an M.A. in Biology and over 25 years of experience conducting botanical surveys, wetland delineations, and biological assessments in northern California.

The botanical survey was floristic and followed methods outlined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Plant taxonomy generally follows *The Jepson Manual Vascular Plants of California, Second Edition* (Baldwin et. al. 2012), however the plant list may include more recent name changes. Plant communities were classified according to *A Manual of California Vegetation Online Edition* (CNPS 2023b).

### 4.3. Wetland Delineation

Wetland delineation methods follow the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Western Mountains, Valleys, and Coast Region (Version 2.0)* (Army Corps 2010). Two representative sample points were evaluated for hydrophytic vegetation, hydric soil, and wetland hydrology (Appendix D).



#### 4.3.1. Hydrophytic Vegetation

The vegetation is hydrophytic when the plant community is dominated by species that require or can tolerate long periods of inundation or soil saturation. The procedure for determining if the vegetation is hydrophytic includes determining the wetland indicator status of each plant in the *Western Mountains Valleys and Coast 2020 Regional Wetland Plant List* (Army Corps 2020). The indicator status categories are:

Obligate Wetland Plants (OBL)	Almost always occur in wetlands	>99% frequency
Facultative Wetland Plants (FACW)	Usually occur in wetlands	67%-99%
Facultative Plants (FAC)	Equally occur wetlands and non-wetlands	33%-67%
Facultative Upland Plants (FACU)	Sometimes occur in wetlands	1%-33%
Obligate Upland Plants (UPL)	Rarely occur in wetlands	<1%

If more than 50% of the dominant plants across all vegetation strata (i.e. trees, shrubs, herbs) are OBL, FACW, or FAC, the vegetation is considered to be hydrophytic. Dominance of plants within the plots is determined using the “50/20” rule. This method involves estimating the absolute cover of each plant in each vegetation stratum. Dominant plants include the plants with the highest cover that collectively or individually account for 50% of the total vegetation cover. Additional plants are considered dominant if their cover is at least 20%.

#### 4.3.2. Hydric Soil

Hydric soils are formed under saturated and anaerobic conditions. Reduction and concentration of iron is a commonly observed indication of anaerobic conditions. In the absence of oxygen, microbes reduce iron from its ferric to soluble ferrous form. This results in the soil developing redox depletions which are grayish areas where iron has been depleted and when the soil dries, the dissolved iron oxidizes, and forms rust colored redox concentrations. Sulfur is also reduced in anaerobic conditions. This can result in a “rotten egg” smell. Anaerobic conditions can also slow the ability of microbes to decompose organic material leading to development of thick organic surface layers.

Soil colors were determined with standard Munsell color charts (GretagMacbeth 2000).

#### 4.3.3. Wetland Hydrology

Indicators of wetland hydrology include direct observations of surface water, ground water, and soil saturation. However, these indicators may only be present during a portion of the year and may be absent during the dry season or in drought conditions. These indicators may also be present in non-wetlands during periods of unusually high precipitation. There are a variety of indicators that show evidence of recent inundation or saturation. The water may leave sediment deposits, drainage patterns, and water-stained leaves, surface soil cracks, and other evidence of wetland hydrology. There are also secondary indicators that are less reliable but may be indicative of wetland hydrology. Areas of concave topography, at the toe of a slope, and low elevations around bays and other waterbodies are areas where ground water would be

expected during wet periods. The dominance of OBL and FACW plants that are adapted to saturated conditions also suggests the presence of wetland hydrology.

## 5. RESULTS AND DISCUSSION

### 5.1. Special Status Plants

No special status plants were observed in the project area. A list of all plants recorded on the surveys is provided in Appendix E.

### 5.2. Special Status Natural Communities

The forest on and adjacent to the parcel is Redwood forest and woodland (*Sequoia sempervirens* Forest & Woodland Alliance), which has a rarity ranking of G3 S3.2 and is considered a special status natural community by CDFW.

### 5.3. Special Status Wildlife

The redwood forest is potential habitat for Northern spotted owl (NSO). There is a NSO activity center approximately 0.5 miles southeast of the parcel in Henderson Gulch (HUM0063). A variety of other birds listed by CDFW or that are protected by the MBTA could potentially nest in trees or other vegetation. Bats could also roost in the trees. The forest is also habitat for fisher (*Pekania pennanti*), Humboldt mountain beaver (*Aplodontia rufa humboldtiana*), Sonoma tree vole (*Arborimus pomo*), and North American porcupine (*Erethizon dorsatum*). Western bumble bee (*Bombus occidentalis*) or obscure bumble bee (*Bombus caliginosus*) could nest in old rodent burrows or similar areas, but no evidence of nesting bumble bees was observed on the site visits.

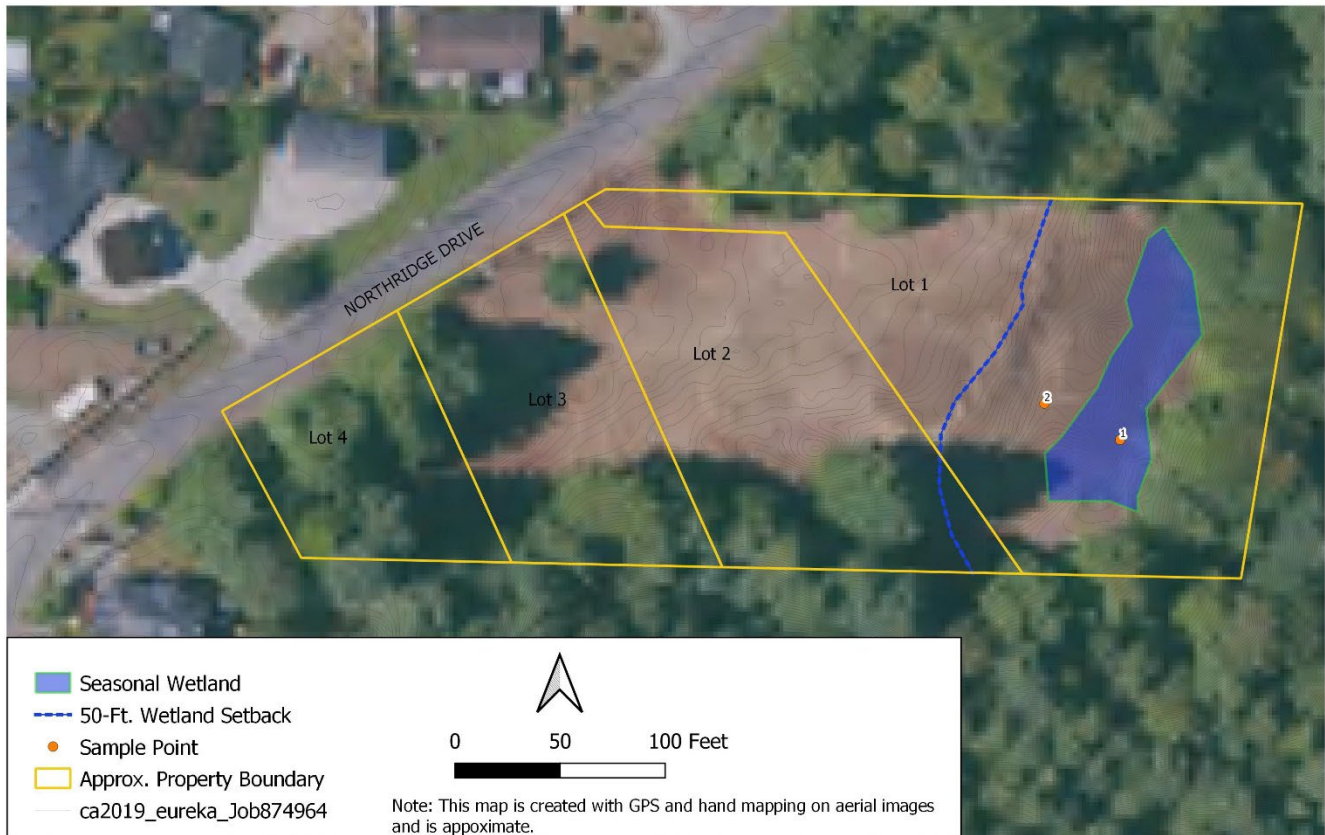
### 5.4. Wetland Delineation

An approximately 4,425 square-foot seasonal emergent wetland was delineated along the base of the slope in the eastern portion of Lot 1 (Figure 2). The hydrophytic vegetation includes reed canary grass (*Phalaris arundinacea* [FACW]), giant horsetail (*Equisetum telmateia*) [FACW]), common rush (*Juncus effusus* [FACW]), and small flowered bullrush (*Scirpus microcarpus*) [OBL]. The soil meets hydric soil indicator F3 (Depleted Matrix). There was no surface water or soil saturation on the June 15 site visit, but there was ponded water along the social trail and soil saturation in the area on the April 15, 2023, site visit. The wetland is also along the base of a slope where ground water could be expected to discharge in the wet season; this is consistent with secondary indicator D2 (Geomorphic Position). The vegetation also meets secondary hydrology indicator D5 (FAC Neutral Test).

## 6. IMPACT ASSESSMENT AND RECOMMENDATIONS

Although there is potential for sensitive wildlife in the redwood forest on and adjacent to the property, the flat potential development areas are devoid of natural vegetation or have trees, but an already cleared understory that is not habitat for NSO, fisher, or other special status wildlife except for birds that could nest in the trees. It is subject to an existing level of

Figure 2. Wetland Map.



disturbance from mowing and maintenance, traffic on Northridge Drive, and other noise associated with neighboring properties. There will be a large enough building envelope on Lot 1 to avoid the wetland setback.

Removal of any trees or other woody vegetation for new development should be conducted outside the nesting bird season which is from February through August, or nesting bird surveys should be conducted prior to tree removal. Otherwise, there is a less than significant risk of impacts to sensitive biological resources from the proposed project.

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## **APPENDIX A** Special Status Plant Scoping List

<b>Scientific Name Common Name</b>	<b>Listing Status</b>	<b>Blooming Period</b>	<b>Habitat</b>	<b>Potential to Occur in Project Area</b>
<i>Abronia umbellata</i> var. <i>breviflora</i> pink sand-verbena	1B.1	Jun-Oct	Coastal dunes	None-no habitat
<i>Angelica lucida</i> sea-watch	4.2	Apr-Sep	Coastal bluff scrub, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt)	None-no habitat
<i>Anomobryum julaceum</i> slender silver moss	4.2		Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest- damp rock and soil on outcrops, usually on roadcuts- Roadsides (usually)	None-no habitat
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	1B.2	(Apr)Jun- Oct	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt, streamsides)	None-no habitat
<i>Cardamine angulata</i> seaside bittercress	2B.2	(Jan)Mar- Jul	Lower montane coniferous forest, North Coast coniferous forest- wet areas- Streambanks	Unlikely-occur in riparian habitat
<i>Carex arcta</i> northern clustered sedge	2B.2	Jun-Sep	Bogs and fens, North Coast coniferous forest (mesic)	Moderate-wetland
<i>Carex leptalea</i> bristle-stalked sedge	2B.2	Mar-Jul	Bogs and fens, Marshes and swamps, Meadows and seeps (mesic)	Moderate-wetland
<i>Carex lyngbyei</i> Lyngbye's sedge	2B.2	Apr-Aug	Marshes and swamps (brackish, freshwater)	Moderate-wetland
<i>Carex praticola</i> northern meadow sedge	2B.2	May-Jul	Meadows and seeps (mesic)	Moderate-wetland
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i> Humboldt Bay owl's-clover	1B.2	Apr-Aug	Marshes and swamps (coastal salt)	None-no habitat
<i>Castilleja litoralis</i> Oregon coast paintbrush	2B.2	Jun	Coastal bluff scrub, Coastal dunes, Coastal scrub-Sandy	None-no habitat
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	1B.2	Jun-Oct	Marshes and swamps (coastal salt)	None-no habitat
<i>Chrysosplenium glechomifolium</i> Pacific golden saxifrage	4.3	Feb-Jun	North Coast coniferous forest, Riparian forest- Roadsides (sometimes), Seeps (sometimes), Streambanks	Unlikely-occurs in riparian habitat
<i>Clarkia amoena</i> ssp. <i>whitneyi</i> Whitney's farewell-to-spring	1B.1	Jun-Aug	Coastal bluff scrub, Coastal scrub	None-no habitat
<i>Collinsia corymbosa</i> round-headed collinsia	1B.2	Apr-Jun	Coastal dunes	None-no habitat
<i>Collomia tracyi</i> Tracy's collomia	4.3	Jun-Jul	Broadleafed upland forest, Lower montane coniferous forest- Rocky, Serpentine (sometimes)	None-no habitat
<i>Downingia willamettensis</i> Cascade downingia	2B.2	Jun- Jul(Sep)	Cismontane woodland (lake margins), Valley and foothill	Unlikely-maybe in wetland

<b>Scientific Name Common Name</b>	<b>Listing Status</b>	<b>Blooming Period</b>	<b>Habitat</b>	<b>Potential to Occur in Project Area</b>
			grassland (lake margins), Vernal pools	
<i>Eleocharis parvula</i> small spikerush	4.3	(Apr)Jun-Aug(Sep)	Marshes and swamps	Unlikely-maybe in wetland
<i>Erysimum menziesii</i> Menzies' wallflower	1B.1, CE, FE	Mar-Sep	Coastal dunes	None-no habitat
<i>Erythronium revolutum</i> coast fawn lily	2B.2	Mar-Jul(Aug)	Bogs and fens, Broadleafed upland forest, North Coast coniferous forest-Mesic, Streambanks	Unlikely-usually in mesic habitat along streams
<i>Fissidens pauperculus</i> minute pocket moss	1B.2		North Coast coniferous forest (damp coastal soil)	Unlikely-usually in mesic habitat along streams
<i>Gilia capitata ssp. pacifica</i> Pacific gilia	1B.2	Apr-Aug	Chaparral (openings), Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	Unlikely-usually in more natural open habitat
<i>Gilia millefoliata</i> dark-eyed gilia	1B.2	Apr-Jul	Coastal dunes	None-no habitat
<i>Glehnia littoralis ssp. leiocarpa</i> American glehnia	4.2	May-Aug	Coastal dunes	None-no habitat
<i>Hemizonia congesta ssp. tracyi</i> Tracy's tarplant	4.3	(Mar-Apr)May-Oct	Coastal prairie, Lower montane coniferous forest, North Coast coniferous forest-Openings, Serpentinite (sometimes)	None-no habitat
<i>Hesperevax sparsiflora var. brevifolia</i> short-leaved evax	1B.2	Mar-Jun	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie	None-no habitat
<i>Hosackia gracilis</i> harlequin lotus	4.2	Mar-Jul	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland-Wetlands-Roadsides	High-in open area, wetland, along road
<i>Lasthenia californica ssp. macrantha</i> perennial goldfields	1B.2	Jan-Nov	Coastal bluff scrub, Coastal dunes, Coastal scrub	None-no habitat
<i>Lathyrus glandulosus</i> sticky pea	4.3	Apr-Jun	Cismontane woodland	Unlikely-not typical habitat
<i>Lathyrus japonicus</i> seaside pea	2B.1	May-Aug	Coastal dunes	None-no habitat
<i>Lathyrus palustris</i> marsh pea	2B.2	Mar-Aug	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest-Mesic	None-no habitat
<i>Layia carnosa</i> beach layia	1B.1, CE, FT	Mar-Jul	Coastal dunes, Coastal scrub (sandy)	None-no habitat
<i>Lilium kelloggii</i> Kellogg's lily	4.3	(Feb)May-Aug	Lower montane coniferous forest, North Coast coniferous forest-	Unlikely-maybe forest edge

<b>Scientific Name Common Name</b>	<b>Listing Status</b>	<b>Blooming Period</b>	<b>Habitat</b>	<b>Potential to Occur in Project Area</b>
			Openings, Roadsides	
<i>Lilium occidentale</i> western lily	1B.1, CE, FE	Jun-Jul	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest (openings)	Unlikely-usually wetland in coastal prairie and spruce forest openings
<i>Lilium rubescens</i> redwood lily	4.2	(Mar)Apr- Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest- Roadsides (sometimes), Serpentinite (sometimes)	High-forest edge
<i>Listera cordata</i> heart-leaved twayblade	4.2	Feb-Jul	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest	High-adjacent forest understory
<i>Lycopodium clavatum</i> running-pine	4.1	Jun- Aug(Sep)	Lower montane coniferous forest (mesic), Marshes and swamps, North Coast coniferous forest (mesic)- Edges (often), Openings, Roadsides	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest
<i>Mitellastra caulescens</i> leafy-stemmed mitrewort	4.2	(Mar)Apr- Oct	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest-Mesic, Roadsides (sometimes)	Unlikely-occur in riparian habitat
<i>Monotropa uniflora</i> ghost-pipe	2B.2	Jun- Aug(Sep)	Broadleafed upland forest, North Coast coniferous forest	Unlikely-project in south of most of know range
<i>Montia howellii</i> Howell's montia	2B.2	(Feb)Mar- May	Meadows and seeps, North Coast coniferous forest, Vernal pools- Roadsides (sometimes), Vernal Mesic	High-in field
<i>Oenothera wolfii</i> Wolf's evening-primrose	1B.1	May-Oct	Coastal bluff scrub, Coastal dunes, Coastal prairie, Lower montane coniferous forest- Mesic (usually), Sandy	Unlikely-not typical habitat
<i>Packera bolanderi var. bolanderi</i> seacoast ragwort	2B.2	(Jan- Apr)May- Jul(Aug)	Coastal scrub, North Coast coniferous forest- Roadsides (sometimes)	Unlikely-not typical habitat
<i>Pityopus californicus</i> California pinefoot	4.2	(Mar- Apr)May- Aug	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest-Mesic	High-in adjacent forest understory
<i>Pleuropogon refractus</i> nodding semaphore grass	4.2	(Feb- Mar)Apr- Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest, Riparian forest- Mesic	Unlikely-occur in riparian habitat
<i>Polemonium carneum</i> Oregon polemonium	2B.2	Apr-Sep	Coastal prairie, Coastal scrub, Lower montane coniferous forest	Unlikely-not typical habitat



<b>Scientific Name Common Name</b>	<b>Listing Status</b>	<b>Blooming Period</b>	<b>Habitat</b>	<b>Potential to Occur in Project Area</b>
<i>Puccinellia pumila</i> dwarf alkali grass	2B.2	Jul	Marshes and swamps (coastal salt)	None-no habitat
<i>Ribes laxiflorum</i> trailing black currant	4.3	Mar- Jul(Aug)	North Coast coniferous forest- Roadsides (sometimes)	Moderate-forest edge
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	4.2	(Mar)Apr- Aug	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland- Disturbed areas (often)	Moderate-forest edge, wetland, field
<i>Sidalcea malviflora ssp. patula</i> Siskiyou checkerbloom	1B.2	(Mar)May -Aug	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest- often roadcuts- Roadsides (often)	Unlikely-maybe some potential in field
<i>Sidalcea oregana ssp. eximia</i> coast checkerbloom	1B.2	Jun-Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	Unlikely-maybe some potential in field
<i>Silene scouleri ssp. scouleri</i> Scouler's catchfly	2B.2	(Mar- May)Jun- Aug(Sep)	Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	None-no habitat
<i>Spergularia canadensis var. occidentalis</i> western sand-spurrey	2B.1	Jun-Aug	Marshes and swamps (coastal salt)	None-no habitat
<i>Sulcaria spiralifera</i> twisted horsehair lichen	1B.2		Coastal dunes (SLO Co.), North Coast coniferous forest (immediate coast)-Usually on conifers.	Unlikely-occurs on immediate coast
<i>Usnea longissima</i> Methuselah's beard lichen	4.2		Broadleafed upland forest, North Coast coniferous forest- On tree branches; usually on old growth hardwoods and conifers	High-tree branches
<i>Viola palustris</i> alpine marsh violet	2B.2	Mar-Aug	Bogs and fens (coastal), Coastal scrub (mesic)	Unlikely-not typical habitat, maybe in small wetland

#### SPECIAL STATUS PLANT LISTING STATUS

##### Endangered Species Act (ESA)

**FE:** Federally Endangered  
**FT:** Federally Threatened  
**FR:** Federally Rare

##### California Endangered Species Act (CESA)

**CE:** California Endangered  
**CT:** California Threatened  
**CR:** California Rare

##### California Rare Plant Ranks

- 1A:** Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere  
**1B:** Plants Rare, Threatened, or Endangered in California and Elsewhere  
**2A:** Plants Presumed Extirpated in California, But Common Elsewhere  
**2B:** California Rare Plant Rank 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere  
**3.** Review List: Plants about which more information is needed.  
**4.** Watch List: Plants of limited distribution

##### Threat Ranks

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)  
0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)  
0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

## **APPENDIX B** Special Status Wildlife Scoping List

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
<b>Amphibians</b>					
<i>Ascaphus truei</i> Pacific tailed frog	-	-	SSC	Occurs in montane hardwood-conifer, redwood, Douglas-fir & ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	None-No habitat
<i>Rana aurora</i> northern red-legged frog	-	-	SSC	Humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover- Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	Moderate-no permanent water, can occur in upland or seasonal wetland
<i>Rana boylei</i> pop. 1 foothill yellow-legged frog - north coast DPS	-	-	SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	None-No habitat
<i>Rhyacotriton variegatus</i> southern torrent salamander	-	-	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	None-No habitat
<b>Birds</b>					
<i>Accipiter cooperii</i> Coopers hawk	-	-	WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Unlikely-not typical nesting habitat
<i>Accipiter striatus</i> sharp-shinned hawk	-	-	WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas- North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	Unlikely-not typical habitat
<i>Agelaius tricolor</i> tricolored blackbird	-	CT	SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water,	Unlikely-no habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
				protected nesting substrate, and foraging area with insect prey within a few km of the colony.	
<i>Ammodramus savannarum</i> grasshopper sparrow	-	-	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Unlikely-no habitat
<i>Ardea alba</i> great egret	-	-	-	Colonial nester in large trees- Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Unlikely-not typical habitat
<i>Ardea herodias</i> great blue heron	-	-	-	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes- Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Unlikely-not typical habitat
<i>Asio flammeus</i> short-eared owl	-	-	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields- Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Unlikely-not typical habitat
<i>Botaurus lentiginosus</i> American bittern	-	-	-	Freshwater and slightly brackish marshes. Also in coastal saltmarshes- Dense reed beds	Unlikely-not typical habitat
<i>Brachyramphus marmoratus</i> marbled murrelet	FT	CE	-	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz- Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	None-no habitat
<i>Chaetura vauxi</i> Vauxs swift	-	-	SSC	Redwood, Douglas-fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks- Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Moderate-potential in adjacent redwood forest
<i>Charadrius montanus</i> mountain plover	-	-	SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms (Short vegetation, bare ground, and flat	Unlikely-not typical habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
				topography. Prefers grazed areas and areas with burrowing rodents).	
<i>Charadrius nivosus nivosus</i> western snowy plover	FT	-	SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None-no habitat
<i>Circus hudsonius</i> northern harrier	-	-	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas- Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Unlikely-not typical habitat
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT	CE	-	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Unlikely-not typical habitat
<i>Coturnicops noveboracensis</i> yellow rail	-	-	SSC	Summer resident in eastern Sierra Nevada in Mono County- Summer resident in eastern Sierra Nevada in Mono County- Freshwater marshlands.	Unlikely-potential winter visitor, rarely observed in Humboldt County
<i>Egretta thula</i> snowy egret	-	-	-	Colonial nester, with nest sites situated in protected beds of dense tules- Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	Unlikely-usually closer to water
<i>Elanus leucurus</i> white-tailed kite	-	-	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland- Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Unlikely-not typical habitat
<i>Empidonax traillii</i> willow flycatcher	-	CE	-	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2000-8000 ft elevation- Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	Unlikely-rarely seen in Humboldt County, potential occasional visitor, site lacks willow thickets

<i>Scientific Name</i> Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
<i>Falco columbarius</i> merlin	-	-	WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches- Clumps of trees or windbreaks are required for roosting in open country.	Unlikely-potential winter visitor, not in nesting range
<i>Falco peregrinus anatum</i> American peregrine falcon			FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Unlikely-not typical habitat
<i>Haliaeetus leucocephalus</i> bald eagle		CE	FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Unlikely-not typical habitat
<i>Icteria virens</i> yellow-breasted chat	-	-	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses- Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Unlikely-uncommon summer visitor
<i>Nannopterum auritum</i> double-crested cormorant	-	-	WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state- Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	None-no habitat
<i>Numenius americanus</i> long-billed curlew	-	-	WL	Breeds in grassland in west-central North America-feeds on mudflats or similar substrates	None-no habitat
<i>Nycticorax nycticorax</i> black-crowned night heron	-	-	-	Colonial nester, usually in trees, occasionally in tule patches- Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots	Unlikely-not typical habitat
<i>Pandion haliaetus</i> osprey	-	-	WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Unlikely-not typical usually closer to water
<i>Passerculus sandwichensis alaudinus</i>	-	-	SSC	Occupies low tidally influenced habitats, adjacent ruderal areas, moist grasslands within and just	Unlikely-not typical habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
Bryants savannah sparrow				above the fog belt, and, infrequently, drier grasslands- Around Humboldt Bay, it breeds in extensive dairy pastures, especially in the taller grasses and rushes along roads and fences, and water conveyance canals.	
<i>Pelecanus occidentalis californicus</i> California brown pelican			FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	None-no habitat
<i>Poecile atricapillus</i> black-capped chickadee	-	-	WL	An uncommon resident restricted to Del Norte, Humboldt, and Siskiyou cos. in northern California. Occurs locally in montane riparian habitat from coast into mountainous areas inland; also found locally in the more arid Shasta Valley, Siskiyou Co. Occasionally wanders in winter	Unlikely-maybe occasional visitor
<i>Progne subis</i> purple martin	-	-	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human- made structures. Nest often located in tall, isolated tree/snag.	Unlikely-not typical habitat
<i>Rallus obsoletus obsoletus</i> California Ridgways rail	FE	CE	FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud- bottomed sloughs	None-no habitat
<i>Riparia riparia</i> bank swallow	-	CT	-	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert- Requires vertical banks/cliffs with fine- textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Unlikely-not typical habitat
<i>Setophaga petechia</i> yellow warbler	-	-	SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting	Unlikely-not typical habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
				and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	
<i>Sphyrapicus ruber</i> red-breasted sapsucker	-	-	-	Breeds in mixed coniferous and mixed deciduous-coniferous forests and woodlands. Requires standing snags or hollow trees for nesting cavity.	Moderate-adjacent redwood forest
<i>Strix occidentalis caurina</i> Northern Spotted Owl	FT	CT	-	Often old growth, but also occurs in younger stand with suitable nest trees and high density of woodrats.	High-adjacent redwood forest
<b>Fish</b>					
<i>Acipenser medirostris</i> <i>pop. 1</i> green sturgeon - southern DPS	FT	-	-	Rivers, bays, estuaries	None-no habitat
<i>Acipenser medirostris</i> <i>pop. 2</i> green sturgeon - northern DPS	-	-	SSC	Rivers, bays, estuaries	None-no habitat
<i>Acipenser transmontanus</i> white sturgeon	-	-	SSC	Rivers, bays, estuaries	None-no habitat
<i>Entosphenus tridentatus</i> Pacific lamprey	-	-	SSC	Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River.	None-no habitat
<i>Eucyclogobius newberryi</i> tidewater goby	FE	-	-	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River.	None-no habitat
<i>Lampetra richardsoni</i> western brook lamprey	-	-	SSC	Clear, cold, water in little disturbed watersheds, as well as clean gravel near cover (boulders, riparian vegetation, logs, etc.) for spawning	None-no habitat
<i>Oncorhynchus clarkii</i> <i>clarkii</i> coast cutthroat trout	-	-	SSC	Small coastal streams from the Eel River to the Oregon border.	None-no habitat
<i>Oncorhynchus kisutch</i> <i>pop. 2</i> coho salmon - southern Oregon / northern California ESU	FT	CT	-	Aquatic	None-no habitat
<i>Oncorhynchus mykiss</i> <i>irideus pop. 48</i>	FT	CE	-	Aquatic	None-no habitat



Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
steelhead - northern California DPS summer- run					
<i>Oncorhynchus mykiss</i> <i>irideus</i> pop. 49 steelhead - northern California DPS winter-run	FT	-	-	Aquatic	None-no habitat
<i>Oncorhynchus</i> <i>tshawytscha</i> pop. 17 chinook salmon - California coastal ESU	Threat ened	-	-	Aquatic	None-no habitat
<i>Spirinchus thaleichthys</i> longfin smelt	FC	CT	-	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	None-no habitat
<i>Thaleichthys pacificus</i> eulachon	FT	-	-	Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris.	None-no habitat
<b>Insects</b>					
<i>Bombus caliginosus</i> obscure bumble bee	-	-	-	Coastal areas from Santa Barbara County to north to Washington state- Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia.	Moderate-potential nesting habitat, some nectar plants
<i>Bombus occidentalis</i> western bumble bee	-	CE	-	Nests near ground under wood, in old rodent burrows. Forages on a variety of plants for nectar and pollen.	Moderate-potential nesting and foraging habitat
<i>Cicindela hirticollis</i> <i>gravida</i> sandy beach tiger beetle	-	-	-	California from San Francisco Bay to northern Mexico- Clean, dry, light- colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	None-no habitat
<i>Limnephilus atercus</i> Fort Dick limnephilus caddisfly	-	-	-	Known only from Fort Dick in Del Norte County. Aquatic Klamath/North coast flowing waters Klamath/North coast standing waters	None-no habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
<i>Scaphinotus behrensi</i> Behrens snail-eating beetle	-	-	-	Found in extreme NW CA along the coast. North coast coniferous forest.	Unlikely-maybe in adjacent redwood forest
<b>Mammals</b>					
<i>Antrozous pallidus</i> pallid bat	-	-	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Unlikely-no typical roosting habitat
<i>Aplodontia rufa humboldtiana</i> Humboldt mountain beaver	-	-	-	Coast Range in southwestern Del Norte County and northwestern Humboldt County- Variety of coastal habitats, including coastal scrub, riparian forests, typically with open canopy and thickly vegetated understory.	Moderate- adjacent redwood forest
<i>Arborimus pomo</i> Sonoma tree vole	-	-	SSC	North coast fog belt from Oregon border to Sonoma County. In Douglas-fir, redwood & montane hardwood-conifer forests. Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	Moderate-on Douglas-fir trees or other conifers in adjacent forest
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	-	-	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites- Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance	Unlikely-not typical roosting habitat
<i>Enhydra lutris nereis</i> southern sea otter	FT	-	FP	Nearshore marine environments from about Ano Nuevo, San Mateo Co. to Point Sal, Santa Barbara Co.	None-no habitat
<i>Erethizon dorsatum</i> North American porcupine	-	-	-	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges- Wide variety of coniferous and mixed woodland habitat.	Moderate-adjacent redwood forest
<i>Lasionycteris noctivagans</i> silver-haired bat	-	-	-	Primarily a coastal and montane forest dweller, feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Moderate-potential roosting in adjacent forest

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
<i>Lasiurus cinereus</i> hoary bat	-	-	-	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding- Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Moderate-potential roosting in adjacent forest
<i>Martes caurina humboldtensis</i> Humboldt marten	FT	FE	SSC	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County. Associated with late-successional coniferous forests, prefer forests with low, overhead cover.	Unlikely-no old growth forest
<i>Myotis evotis</i> long-eared myotis	-	-	-	Found in all brush, woodland and forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands and forests- Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.	Moderate-potential roosting in adjacent forest
<i>Myotis yumanensis</i> Yuma myotis	-	-	-	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Unlikely-not typical roosting habitat
<i>Pekania pennanti</i> Fisher	-	-	SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Moderate-in adjacent forest
<i>Taxidea taxus</i> American badger	-	-	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Unlikely-not typical habitat
<b>Mollusks</b>					
<i>Anodonta californiensis</i> California floater	-	-	-	Freshwater lakes and slow-moving streams and rivers- Generally in shallow water.	None-no habitat
<i>Littorina subrotundata</i> Newcombs littorine snail	-	-	-	Salt/brackish water snail known only from Humboldt Bay in California- Salt/brackish water snail	None-no habitat

Scientific Name Common Name	Listing Status			Habitat	Potential to Occur in Project Area
	Federal	State	CDFW		
				known only from Humboldt Bay in California.	
<i>Margaritifera falcata</i> western pearlshell	-	-	-	Aquatic- Prefers lower velocity waters.	None-no habitat
<b>Reptiles</b>					
<i>Emys marmorata</i> western pond turtle	-	-	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation- Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None-no habitat

**Listing Status Codes:**

Federal

FE=Endangered

FT=Threatened

FC=Candidate

California

CE=Endangered

CT=Threatened

CC=Candidate

CDFW

SSC = Species of Special Concern

WL = Watch List

FP = Fully Projected

## **APPENDIX C** Special Status Natural Community Scoping List

Scientific Name	Common Name	Global rarity	State rarity
<i>Abies grandis</i>	Grand fir forest	G4	S2.1
<i>Abronia latifolia</i> - <i>Ambrosia chamissonis</i>	Dune mat	G3	S3
<i>Acer macrophyllum</i>	Bigleaf maple forest and woodland	G4	S3
<i>Acer negundo</i>	Box-elder forest and woodland	G5	S3
<i>Aesculus californica</i>	California buckeye groves	G3	S3
<i>Allium</i> spp. - <i>Streptanthus</i> spp. - <i>Hesperolinon</i> spp. <i>Serpentinite</i>	Onion - twistflower - dwarf-flax serpentine rock outcrop	G2G3	S2S3
<i>Alnus incana</i>	Mountain alder thicket	G4	S3
<i>Alnus viridis</i>	Sitka alder thickets	G5	S3?
<i>Alopecurus geniculatus</i>	Water foxtail meadows	G3?	S3?
<i>Arctostaphylos</i> ( <i>bakeri</i> , <i>montana</i> )	Baker's or Mt. Tamalpais manzanita chaparral	G3	S3
<i>Arctostaphylos</i> ( <i>canescens</i> , <i>manzanita</i> , <i>stanfordiana</i> )	Hoary, common, and Stanford manzanita chaparral	G3	S3
<i>Arctostaphylos glandulosa</i>	Eastwood manzanita chaparral	G4	S3
<i>Arctostaphylos</i> ( <i>nummularia</i> , <i>sensitiva</i> ) - <i>Chrysolepis chrysophylla</i>	Glossy leaf manzanita - Golden chinquapin chaparral	G2	S2
<i>Arctostaphylos patula</i> - <i>Arctostaphylos nevadensis</i>	Green leaf manzanita - Pinemat manzanita chaparral	G5	S3S4
<i>Bolboschoenus maritimus</i>	Salt marsh bulrush marshes	G4	S3
<i>Bromus carinatus</i> - <i>Elymus glaucus</i>	California brome - blue wildrye prairie	G3	S3
<i>Calamagrostis nutkaensis</i>	Pacific reed grass meadows	G4	S2
<i>Calocedrus decurrens</i>	Incense cedar forest and woodland	G4	S3
<i>Carex</i> ( <i>aquatilis</i> , <i>lenticularis</i> )	Water sedge and lakeshore sedge meadows	G5	S3
<i>Carex barbarae</i>	White-root beds	G2?	S2?
<i>Carex echinata</i>	Star sedge fens	G4?	S3?
<i>Carex integra</i>	Small-fruited sedge meadows	G4?	S2?
<i>Carex luzulina</i>	Woodland sedge fens	G3	S2?
<i>Carex lyngbyei</i>	Lyngbye's sedge swathes	GNR	S1
<i>Carex nudata</i>	Torrent sedge patches	G3	S3
<i>Carex obnupta</i> - <i>Oenanthe sarmentosa</i> - <i>Scirpus microcarpus</i>	Slough sedge - Water-parsley - Small-fruited bulrush marsh	G4	S3
<i>Ceanothus</i> ( <i>oliganthus</i> , <i>tomentosus</i> )	Hairy leaf - woolly leaf ceanothus chaparral	G3	S3
<i>Cephalanthus occidentalis</i>	Button willow thickets	G5	S2
<i>Chamaecyparis lawsoniana</i>	Port Orford cedar forest and woodland	G3	S3.1
<i>Chrysolepis sempervirens</i>	Bush chinquapin chaparral	G4	S3.3
<i>Corylus cornuta</i> var. <i>californica</i>	Hazelnut scrub	G3	S2?
<i>Darlingtonia californica</i>	California pitcher plant fens	G4?	S3
<i>Deschampsia cespitosa</i> - <i>Festuca rubra</i> Brackish Salt Marsh	Tufted hairgrass - Red fescue brackish salt marsh	GNR	S2
<i>Deschampsia cespitosa</i> - <i>Hordeum brachyantherum</i> - <i>Danthonia californica</i>	Coastal tufted hair grass - Meadow barley - California oatgrass meadow	GNR	S3

Scientific Name	Common Name	Global rarity	State rarity
<i>Diplacus aurantiacus</i>	Bush monkeyflower scrub	G3	S3?
<i>Equisetum</i> (arvense, variegatum, hyemale)	Field horsetail - scouringrush horsetail - variegated scouringrush wet meadow	GNR	S3S4
<i>Eriophyllum staechadifolium</i> - <i>Erigeron glaucus</i> - <i>Eriogonum latifolium</i>	Seaside woolly-sunflower - seaside daisy - buckwheat patches	G3	S3
<i>Festuca idahoensis</i> - <i>Danthonia californica</i>	Idaho fescue - California oatgrass grassland	GNR	S3
<i>Frangula californica</i> - <i>Rhododendron occidentale</i> - <i>Salix breweri</i>	California coffee berry - western azalea scrub - Brewer's willow	G3	S3
<i>Frankenia salina</i>	Alkali heath marsh	G4	S3
<i>Fraxinus latifolia</i>	Oregon ash groves	G4	S3.2
<i>Glyceria</i> ã—occidentalis	Northwest manna grass marshes	G3?	S3?
<i>Grindelia</i> (stricta)	Gum plant patches	G2G3	S2S3
<i>Hesperocyparis</i> (pigmaea, abramsiana, macrocarpa, goveniana)	California coastal cypress woodland	G2	S2
<i>Hesperocyparis</i> (sargentii, macnabiana)	Ultramafic cypress woodland	G3	S3
<i>Heterotheca</i> (oregona, sessiliflora)	Goldenaster patches	G3	S3
<i>Hydrocotyle</i> (ranunculoides, umbellata)	Mats of floating pennywort	G4	S3?
<i>Isoetes</i> (bolanderi, echinospora, howellii, nuttallii, occidentalis)	Quillwort beds	G3	S3?
<i>Juglans hindsii</i> and Hybrids	Hinds's™ walnut and related stands	G1	S1.1
<i>Juncus</i> (effusus, patens) - <i>Carex</i> (pansa, praegracilis)	Soft and western rush - Sedge marshes	G4?	S3S4
<i>Juncus</i> (oxymeris, xiphioides)	Iris-leaf rush seeps	G2?	S2?
<i>Lasthenia glaberrima</i>	Smooth goldfields vernal pool bottoms	G2	S2
<i>Leymus cinereus</i> - <i>Leymus triticoides</i>	Ashy ryegrass - Creeping wildrye turfs	G3	S3
<i>Leymus mollis</i>	Sea lyme grass patches	G4	S2
<i>Lupinus chamissonis</i> - <i>Ericameria ericoides</i>	Silver dune lupine - mock heather scrub	G3	S3
<i>Mimulus</i> (guttatus)	Common monkey flower seeps	G4?	S3?
<i>Nassella</i> spp. - <i>Melica</i> spp.	Needle grass - Melic grass grassland	G3G4	S3S4
<i>Notholithocarpus densiflorus</i>	Tanoak forest	G4	S3.2
<i>Nuphar lutea</i>	Yellow pond-lily mats	G5	S3?
<i>Picea sitchensis</i>	Sitka spruce forest and woodland	G5	S2
<i>Pinus balfouriana</i>	Foxtail pine woodland	G3	S3
<i>Pinus contorta</i> ssp. contorta	Beach pine forest and woodland	G5	S3
<i>Pinus muricata</i> - <i>Pinus radiata</i>	Bishop pine - Monterey pine forest and woodland	G3	S3.2
<i>Populus fremontii</i> - <i>Fraxinus velutina</i> - <i>Salix gooddingii</i>	Fremont cottonwood forest and woodland	G4	S3.2
<i>Populus trichocarpa</i>	Black cottonwood forest and woodland	G5	S3
<i>Pseudotsuga menziesii</i> - <i>Calocedrus decurrens</i>	Douglas fir - incense cedar forest and woodland	G3	S3
<i>Pseudotsuga menziesii</i> - <i>Notholithocarpus densiflorus</i>	Douglas fir - tanoak forest and woodland	G3	S3

Scientific Name	Common Name	Global rarity	State rarity
<i>Quercus garryana</i> (tree)	Oregon white oak woodland and forest	G4	S3
<i>Quercus lobata</i>	Valley oak woodland and forest	G3	S3
<i>Quercus lobata</i> Riparian	Valley oak riparian forest and woodland	G3	S3
<i>Quercus wislizeni</i> - <i>Quercus chrysolepis</i> (shrub)	Canyon live oak - Interior live oak chaparral	G4	S3S4
<i>Rhododendron columbianum</i>	Western Labrador-tea thickets	G4	S2
<i>Rubus spectabilis</i> - <i>Morella californica</i>	Salmonberry - Wax myrtle scrub	G4	S3
<i>Ruppia</i> ( <i>cirrhusa</i> , <i>maritima</i> )	Ditch-grass or widgeon-grass mats	G4?	S2
<i>Salix gooddingii</i> - <i>Salix laevigata</i>	Goodding's willow - red willow riparian woodland and forest	G4	S3
<i>Salix hookeriana</i> - <i>Salix sitchensis</i> - <i>Spiraea douglasii</i>	Coastal dune willow - Sitka willow - Douglas spiraea thickets	G4	S3
<i>Salix lucida</i> ssp. <i>lasiandra</i>	Shining willow groves	G4	S3.2
<i>Sarcocornia pacifica</i> ( <i>Salicornia depressa</i> )	Pickleweed mats	G4	S3
<i>Schoenoplectus</i> ( <i>acutus</i> , <i>californicus</i> )	Hardstem and California bulrush marshes	GNR	S3S4
<i>Schoenoplectus americanus</i>	Common Three-square marsh	G5	S3.2
<i>Scirpus microcarpus</i>	Small-fruited bulrush marsh	G4	S2
<i>Selaginella</i> ( <i>bigelovii</i> , <i>wallacei</i> )	Bushy spikemoss mats	G4	S3
<i>Sequoia sempervirens</i>	Redwood forest and woodland	G3	S3.2
<i>Sparganium</i> ( <i>angustifolium</i> )	Mats of bur-reed leaves	G4	S3?
<i>Spartina foliosa</i>	California cordgrass marsh	G3	S3.2
<i>Stuckenia</i> ( <i>pectinata</i> ) - <i>Potamogeton</i> spp.	Pondweed mats	G3G5	S3?
<i>Torreyochloa pallida</i>	Floating mats of weak manna grass	G3	S3?
<i>Trifolium variegatum</i>	White-tip clover swales	G3?	S3?
<i>Tsuga heterophylla</i>	Western hemlock forest	G5	S2
<i>Umbellularia californica</i>	California bay forest and woodland	G4	S3
<i>Vaccinium uliginosum</i>	Bog blueberry wet meadows	G4	S3
<i>Vitis arizonica</i> - <i>Vitis girdiana</i>	Wild grape shrubland	G3	S3
<i>Zostera</i> ( <i>marina</i> , <i>pacifica</i> ) Pacific Aquatic	Eelgrass beds	GNR	S3



## **APPENDIX D** Wetland Determination Data Forms

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

Project/Site: APN: 303-270-028 City/County: Humboldt Sampling Date: 6-15-23  
 Applicant/Owner: Curb Appeal State: CA Sampling Point: 1  
 Investigator(s): K. Wear Section, Township, Range: 11, T4N, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 10  
 Subregion (LRR): A Lat: -124.1447835 Long: 40.7465864 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Salmancreek-Tepan-Rootcreek NWI classification: \_\_\_\_\_  
 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:	

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

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
				_____ = Total Cover
Herb Stratum (Plot size: <u>4x8'</u> )				
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Ranunculus repens</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Equisetum telmateia</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
4. <u>Juncus effusus</u>	<u>2</u>	<u>no</u>	<u>FACW</u>	
5. <u>Scirpus microcarpus</u>	<u>2</u>	<u>no</u>	<u>OBL</u>	
6. <u>Anthoxanthum odoratum</u>	<u>2</u>	<u>no</u>	<u>FACU</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
				<u>106</u> = Total Cover
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
				_____ = Total Cover
% Bare Ground in Herb Stratum _____				
Remarks: <u>Plot oriented parallel to trail along base of slope</u>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation \_\_\_\_\_

2 - Dominance Test is >50% \_\_\_\_\_

3 - Prevalence Index is ≤3.0<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) \_\_\_\_\_

5 - Wetland Non-Vascular Plants<sup>1</sup> \_\_\_\_\_

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) \_\_\_\_\_

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

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

**SOIL**

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10y 9/2	75	7.5y 4/6	25	C	M	CL	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

**Restrictive Layer (if present):**

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

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

**Hydric Soil Present?** Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" 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 checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> 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 type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks: area was saturated or had shallow water on 4-15-23

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

Project/Site: APN: 303-270-028 City/County: Humboldt Sampling Date: 6-15-23  
 Applicant/Owner: Curb Appeal State: CA Sampling Point: 2  
 Investigator(s): K. Wear Section, Township, Range: 11, T4N, R1W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 10  
 Subregion (LRR): A Lat: 40.74662599 Long: -124.14490863 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Salmoncreek-Topona-Rockcreek NWI classification: \_\_\_\_\_  
 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 <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Area is recently mowed</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>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
Herb Stratum (Plot size: <u>5'-radius</u> )				Column Totals:	_____ (A) _____ (B)
1. <u>Cirsium vulgare</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	Prevalence Index = B/A = _____	
2. <u>Rubus ursinus</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b>	
3. <u>Rubus armeniacus</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	___ 1 - Rapid Test for Hydrophytic Vegetation	
4. <u>Stachys mexicana</u>	<u>10</u>	<u>no</u>	<u>FACW</u>	___ 2 - Dominance Test is >50%	
5. <u>Equisetum telmateia</u>	<u>2</u>	<u>no</u>	<u>FACW</u>	___ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
6. <u>Arnica montana</u>	<u>2</u>	<u>no</u>	<u>FACW</u>	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
7. <u>Anthoxanthum odoratum</u>	<u>2</u>	<u>no</u>	<u>FACW</u>	___ 5 - Wetland Non-Vascular Plants <sup>1</sup>	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
11. _____	_____	_____	_____	Remarks:	
= Total Cover <u>76</u>					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover _____					
% Bare Ground in Herb Stratum _____					

**SOIL**

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	12y-4/2	90	7.5y-4/6	10	C	U	cl	

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

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

**Restrictive Layer (if present):**

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

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

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

**Field Observations:**

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

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

Remarks:

## **APPENDIX E** Plant List

Scientific Name	Common Name
<i>Allium triquetrum</i>	escaped ornamental onion
<i>Alnus rubra</i>	red alder
<i>Anthoxanthum odoratum</i>	sweet vernal grass
<i>Athyrium filix-femina</i>	lady fern
<i>Avena barbata</i>	slender wild oat
<i>Bellis perennis</i>	English daisy
<i>Borago officinalis</i>	borago
<i>Brassica nigra</i>	black mustard
<i>Briza maxima</i>	rattlesnake grass
<i>Bromus hordeaceus</i>	soft chess
<i>Calystegia silvatica</i>	false bindweed
<i>Cardamine oligosperma</i>	western bittercress
<i>Carex obnupta</i>	slough sedge
<i>Chamomilla suaveolens</i>	pineapple weed
<i>Cirsium vulgare</i>	bull thistle
<i>Cortaderia jubata</i>	pampas grass
<i>Cotoneaster franchetii</i>	cotoneaster
<i>Crocsmia Xcrocsmiiflora</i>	montbretia
<i>Cytisus scoparius</i>	Scotch broom
<i>Dactylis glomerata</i>	orchard grass
<i>Daucus carota</i>	Queen Anne's lace
<i>Digitalis purpurea</i>	foxglove
<i>Dryopteris arguta</i>	coastal wood fern
<i>Epilobium ciliatum</i>	northern willow herb
<i>Equisetum hyemale</i> ssp. <i>affine</i>	scouring rush
<i>Equisetum telmateia</i> ssp. <i>braunii</i>	giant horsetail
<i>Euphorbia peplus</i>	petty spurge
<i>Festuca arundinacea</i>	tall fescue
<i>Galium aparine</i>	goose grass
<i>Gaultheria shallon</i>	salal
<i>Genista monspessulana</i>	French broom
<i>Geranium dissectum</i>	cut-leaved geranium
<i>Geranium robertianum</i>	Robert's geranium
<i>Hedera helix</i>	English ivy
<i>Helminthotheca echioides</i>	bristly ox-tongue
<i>Holcus lanatus</i>	common velvet grass
<i>Hypochaeris radicata</i>	hairy cat's-ear
<i>Ilex aquifolium</i>	English holly
<i>Juncus bufonius</i>	common toad rush

Scientific Name	Common Name
<i>Juncus effusus</i>	common rush
<i>Lapsana communis</i>	nipplewort
<i>Lepidium sp.</i>	peppergrass or pepperwort
<i>Leucanthemum vulgare</i>	ox-eye daisy
<i>Linum bienne</i>	western blue flax
<i>Lotus corniculatus</i>	birdfoot trefoil
<i>Lysimachia arvensis</i>	scarlet pimpernel
<i>Lysimachia latifolia</i>	Pacific star flower
<i>Melilotus sp.</i>	sweetclover
<i>Phalaris arundinacea</i>	reed canarygrass
<i>Picea sitchensis</i>	Sitka spruce
<i>Plantago lanceolata</i>	English plantain
<i>Poa annua</i>	annual bluegrass
<i>Polystichum munitum</i>	sword fern
<i>Prosartes hookeri</i>	Hooker's fairy bells
<i>Prunella vulgaris</i>	self-heal
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern
<i>Ranunculus repens</i>	creeping buttercup
<i>Raphanus sativus</i>	wild radish
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rubus parviflorus</i>	thimbleberry
<i>Rubus ursinus</i>	California blackberry
<i>Rumex acetosella</i>	sheep sorrel
<i>Salix lasiolepis</i>	arroyo willow
<i>Sambucus racemosa</i> var. <i>racemosa</i>	red elderberry
<i>Scirpus microcarpus</i>	small-flowered bulrush
<i>Sequoia sempervirens</i>	coast redwood
<i>Silybum marianum</i>	milk thistle
<i>Solanum nigrum</i>	black nightshade
<i>Sonchus asper</i> ssp. <i>asper</i>	prickly sow thistle
<i>Stachys mexicana</i>	Mexican hedgenettle
<i>Stachys rigida</i>	rough hedgenettle
<i>Stellaria media</i>	common chickweed
<i>Struthiopteris spicant</i>	deer fern
<i>Taraxacum officinale</i>	dandelion
<i>Trifolium glomeratum</i>	clustered clover
<i>Trifolium repens</i>	white clover
<i>Trifolium subterraneum</i>	subterranean clover
<i>Trillium ovatum</i>	western trillium



<b>Scientific Name</b>	<b>Common Name</b>
<i>Vaccinium ovatum</i>	evergreen huckleberry
<i>Vaccinium parvifolium</i>	red huckleberry
<i>Vicia sativa</i>	vetch
<i>Viola sempervirens</i>	evergreen violet

## **APPENDIX F** Photos



Photo 1. Looking east across the parcel from near Northridge Road.



Photo 2. Looking across the terrace west towards Northridge Road.



Photo 3. Stand reed canarygrass in wetland at the base of the slope on Lot 1.



Photo 4. Stand of redwood on Lot 4 with mowed understory.