



Redwood Community Action Agency

Special Status Plant Surveys May 2021 Technical Memorandum for the Martin Slough Enhancement Project, Humboldt County, CA.

1 Introduction

This Technical Memorandum reports results of the 2021 special status plant survey in the area of the Martin Slough Enhancement Project in Humboldt County, CA (Figure 1, Attachment 1). Results of the plant survey are presented in Table 1. RCAA biologist Susannah Ferson performed the special status plant survey on May 19, 2021.

1.1 Purpose

The purpose of this evaluation was to conduct seasonally appropriate surveys for state, federal, and other sensitive listed plant species in the proposed project area. The surveys attempted to identify all vascular plants within the 2021 project area to the taxonomic level necessary to determine rarity and listing status, and to document the presence of special status plants within the project footprint, immediately adjacent, and within temporary construction impact areas. The results will be used for planning, design, to avoid or mitigate impacts associated with project construction, and to guide future management decisions.

1.1 Location

The 2021 Project Study Boundary (PSB) for the Martin Slough Enhancement Project consists of the Martin Slough flood plain beginning at the confluence of the north fork and mainstem of Martin Slough and extending upstream of both stems to just below the outer boundary of the Eureka Municipal Golf Course (EMGC), in the lower Martin Slough watershed, in and adjacent to the southern portion of the City of Eureka, California (Figure 2).

1.2 Environmental Setting

The 2021 Martin Slough Habitat Enhancement Project includes lands adjacent to Martin Slough for an approximate 0.4 mile section stretching between the confluence of the north fork tributary upstream to the edge of the forest where the golf course ends and between the confluence upstream along the mainstem to the forest where the golf course ends. The EMGC is the property owner within the 2021 PSB for the Martin Slough Habitat Enhancement Project.

The PSB contains diked former tidelands, and consists of the highly modified habitat of the golf course. Martin Slough contains both coastal brackish marsh and coastal freshwater marsh. The lower portion of the PSB is subject to regular muted tidal action, which is limited to the Martin Slough channel.

Project Summary

The Martin Slough Enhancement Project CEQA Initial Study document provides a description of the Martin Slough project and watershed and is summarized here to provide project context (County of Humboldt, 2016).

Martin Slough has a natural channel length of over 10 miles with approximately 7.5 miles of potential fish habitat supporting the federally listed southern Oregon/northern California (SONCC) coho salmon (*Oncorhynchus kisutch*) and tidewater goby (*Eucyclogobius newberryi*), as well as California coastal chinook (*Oncorhynchus tshawytscha*), northern California steelhead (*Oncorhynchus mykiss*), and coastal cutthroat trout (*Oncorhynchus clarkii*). Old tide gates at the confluence with Swain Slough partially blocked upstream salmonid migration. New tide gates were installed in 2014 as part of the enhancement project. The lower portion of Martin Slough flows through low gradient bottomland containing the golf course and pasture land. Many of the stream channels flow from gulches that contain mature second-growth redwood forests. The upper portions of the watershed are either in urban settings, or are recently harvested timber lands slated for future residential and commercial development.

Much of the historic estuary of Martin Slough has been converted to other land use, although some estuarine habitat still exists. That habitat has been severely degraded by the installation of the tide gates at the confluence of Martin Slough with Swain Slough and other land management practices. These modifications also have had a pronounced effect on flood routing and sedimentation in the lower channel. The purpose of the Martin Slough Enhancement Project is to improve aquatic and riparian habitat and reduce flooding throughout the project area.

2 Regulatory Setting

2.1 State Jurisdiction

2.1.1 State Listed Species

Special status plant species under State jurisdiction include those listed as endangered, threatened, or as candidate species by the California Department of Fish and Wildlife (CDFW) under the the California Endangered Species Act (CESA). Plant species on California Native Plant Society's (CNPS) California Rare Plant Ranking (CRPR) Lists 1A, 1B and 2 are considered eligible for state listing as Endangered or Threatened pursuant to the California Fish and Game Code and CDFW has oversight of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered as they meet the definition of Threatened or Endangered under Sections 2062 and 2067 of the California Fish and Game Code. CRPR List 3 and 4 plants do not have formal protection under CEQA. CDFW publishes and periodically updates lists of special status species which include, for the most part, the above categories.

Additionally, there are 64 plant species designated as "rare" which is a special designation created before plants were rolled into CESA in the 1980s (CDFW 2018). A project is required to have a "Scientific, Educational, or Management Permit" from CDFW for activities that would result in "take," possession, import, or export of state-listed plant species including research, seed banking, reintroduction efforts, habitat

restoration, and other activities relating to any plant designated SE (State endangered), ST (State threatened), SR (State rare), or SC (State candidate for listing).

2.2 Federal Jurisdiction

2.2.1 Federal Listed Species

Special status plant species under Federal jurisdiction include those listed as endangered, threatened, or as candidate species by the Fish and Wildlife Service (USFWS) under the U.S. Endangered Species Act (ESA).

2.2.2 Critical Habitat

Critical Habitat is defined by the ESA as a specific geographic area containing features essential for the conservation of an endangered or threatened species. The ESA requires consultation with USFWS by federal lead agencies for activities they carry out, authorize, or fund. Under Section 7 of the ESA, critical habitat Federally designated for a listed or proposed species that may be present in project Action Area should be evaluated.

3 Methods

3.1 Project Study Boundary / Action Area

Prior to conducting environmental fieldwork, the project scientist worked in coordination with the project manager to develop the limits of the 2021 project study boundary (PSB). The PSB is a terminology adopted from definitions and permit procedures promulgated by the U.S. Army Corps of Engineers (USACE). The PSB is designated on a project specific basis, and as feasible, to take into consideration potential alternate layouts of project, fill/cut slopes, temporary impact areas and/or adjacent areas if feasible, access, new or modified utilities and right of ways, and adjacent areas that may be feasibly included in the study. The PSB may be modified on a project-specific basis according to such issues as private property ownerships, access constraints, and areas excluded from project use. The PSB for the Martin Slough Enhancement Project is shown in Figure 2.

3.2 Pre-Survey Investigations

Prior to field surveys, a scoping list of CRPR plant species and habitats with recorded occurrences in the project vicinity was compiled by consulting the *California Natural Diversity Database* (CNDDDB) [CDFW 2020] and the CNPS *Inventory of Rare and Endangered Vascular Plants* (CNPS 2020). The CNDDDB and Consortium of California Herbaria databases were consulted for site specific species cross reference of rare plant occurrences documented in the project vicinity. Topographic maps and aerial photography were also consulted prior to and during the survey to determine potential habitats for target sensitive plant species occurrence.

The scoping list includes special status plants that occur in habitat similar to the project area with documented occurrences on the Eureka USGS quadrangle or adjacent quadrangles. CDFW and CNPS recommend the assessment area be a minimum of nine USGS quadrangles with the survey area located in the central quad. The scoping list also contains other taxa that may occur in the project area whose habitat is suitable if the project is within or near the known range of the species. The assessment area was defined

as the USGS 7.5' quadrangle in which the project is located (Eureka) plus the eight surrounding quadrangles (Arcata South, Arcata North, Tyee City, Cannibal Island, Fields Landing, Fortuna, Ferndale and McWhinney Creek USGS 7.5' quadrangles). The CNPS Inventory was also queried for CRPR List 3 and 4 species known to occur within the region. The queries yielded 50 sensitive species previously documented in the assessment area. Of these, one species was known to occur from the 2019 project area and was found during the survey. Within the assessment area, four sensitive plant communities are documented according to the CNDDDB (2020).

3.3 Survey Procedures and Mapping Methods

The survey to determine the presence of special status plant species (listed as rare, threatened, endangered, or candidate under the State or Federal Endangered Species Acts, CNPS, or species of local importance) was timed to coordinate with blooming species thought to have moderate to high potential to occur within the project area. U.S. Fish & Wildlife Service (USFWS) and/or other resource agencies and local experts were contacted to verify that botanical surveys were being conducted at an appropriate time of year to allow for climatic micro-variations and bloom period for specific species on a year-to-year basis.

The surveys were floristic in nature following *Protocols for Surveying and Evaluating Impacts to Special status Native Plant Populations and Natural Communities* by the California Natural Resource Agency (CDFW 2018) and *General Rare Plant Survey Guidelines by the Endangered Species Recovery Program* (Cypher 2002). An intuitively controlled survey was conducted that sampled and identified potential habitat(s). Plants were identified to the lowest taxonomic level (genus or species) necessary for rare plant identification. Nomenclature follows *The Jepson Manual* (Baldwin et al 2012). Species surveys were conducted by walking the site for target species and recording extent, approximate number, and/or percent cover of special status plant species observed. Approximately 4 field person hours were spent surveying the PSB on May 19, 2021.

Special status plant species locations were recorded with a Trimble GPS with sub-meter accuracy. An estimate of number of individuals was not made for Lyngbye's sedge (*Carex lyngbyei*) as it was not considered practical for this rhizomatous species.

4 Results

On May 19, 2021, the PSB was surveyed to identify if federal, state and/or CNPS listed plant species are present. During the site evaluation, one special status species was observed during the protocol level survey as identified in Table 1. One small clump of Lyngbye's sedge occurred along the south bank of the north fork tributary, approximately 38 meters north of the existing pond (pond G). Lyngbye's sedge was not found within the rest of the PSB. The mapped occurrence is presented in Figure 2. CNDDDB field forms were completed in the field and will be submitted to CNDDDB.

Table 1 Special Status Plant Survey Results			
Scientific Name	Common Name	Status	Approximate Number of Individuals
<i>Carex lyngbyei</i>	Lyngbye's sedge	2B.2	Unknown

5 Recommendations

The following mitigation measures for Lyngbye's sedge were included in the CEQA Initial Study for The Martin Slough Enhancement Project in Mitigation Measure Bio-6, and will be implemented as follows (County of Humboldt 2016):

- Impacts to Lyngbye's sedge will be reduced by removing and storing plants at the start of channel excavation, watering regularly to ensure survival, and re-planting the sedge after excavation of ponds, tidal benches, and slough channels is complete. Root masses will be divided to generate propagules, which will be used to expand the area of Lyngbye's sedge over the existing condition.

Mitigation Measure Bio-5 from the CEQA document addressed mitigation measures for special status plant species collectively, and states that significant impacts to special status plants present on site shall be minimized, avoided, and contingently compensated (County of Humboldt 2016). Mitigation Measure Bio-5 also states that any populations of special status plant species that are detected shall be flagged if avoidance is feasible and if the population is located adjacent to construction areas. The locations of any special status plant populations to be avoided shall be clearly identified in the contract documents (County of Humboldt 2016).

6 Conclusion

The purpose of this survey was to identify and map special status plants within the project boundary. This survey identified one California Rare Plant Rank species, *Carex lyngbyei*. This effort and reporting is intended to help guide the construction of the project in a manner which avoids impacts to the plant species described herein.

7 References

Baldwin, B. D. 2012. *The Jepson Manual Second Edition*. University of California Press. Berkeley, CA.

CDFW 2018. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. State of California, The Resources Agency, Department of Fish and Wildlife (CDFW), Biogeographic Data Branch. Accessed: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>. Accessed May 2018.

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California Department of Fish and Wildlife. 2018. California Natural Diversity Database (CNDDB). USGS 7.5 Minute Quadrangles: Arcata North, Tyee City, Eureka, Arcata South, McWhinney Creek, Fields Landing, Fortuna, Cannibal Island, Ferndale. California Department of Fish and Wildlife (CDFW). Sacramento, California. Accessed May 2018.

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Cypher, E. A. 2002. General rare plant survey guidelines. *Prepared for the Endangered Species Recovery Program*.

USFWS 2002. General Rare Plant Survey Guidelines by the Endangered Species Recovery Program.

USFWS 2018. Listed/Proposed Threatened and Endangered Species for the Eureka Quad. FWS Arcata Field Station, U. S. Fish and Wildlife Service (USFWS). Accessed May 2018.

Attachments

1. Figures

Figure 1: Regional and Location Map

Figure 2: 2021 Martin Slough Restoration Project Study Boundary

2. Tables

Table 2 Special status plant species with potential to occur in the PSB

Table 3 Species list of plants observed within the PSB

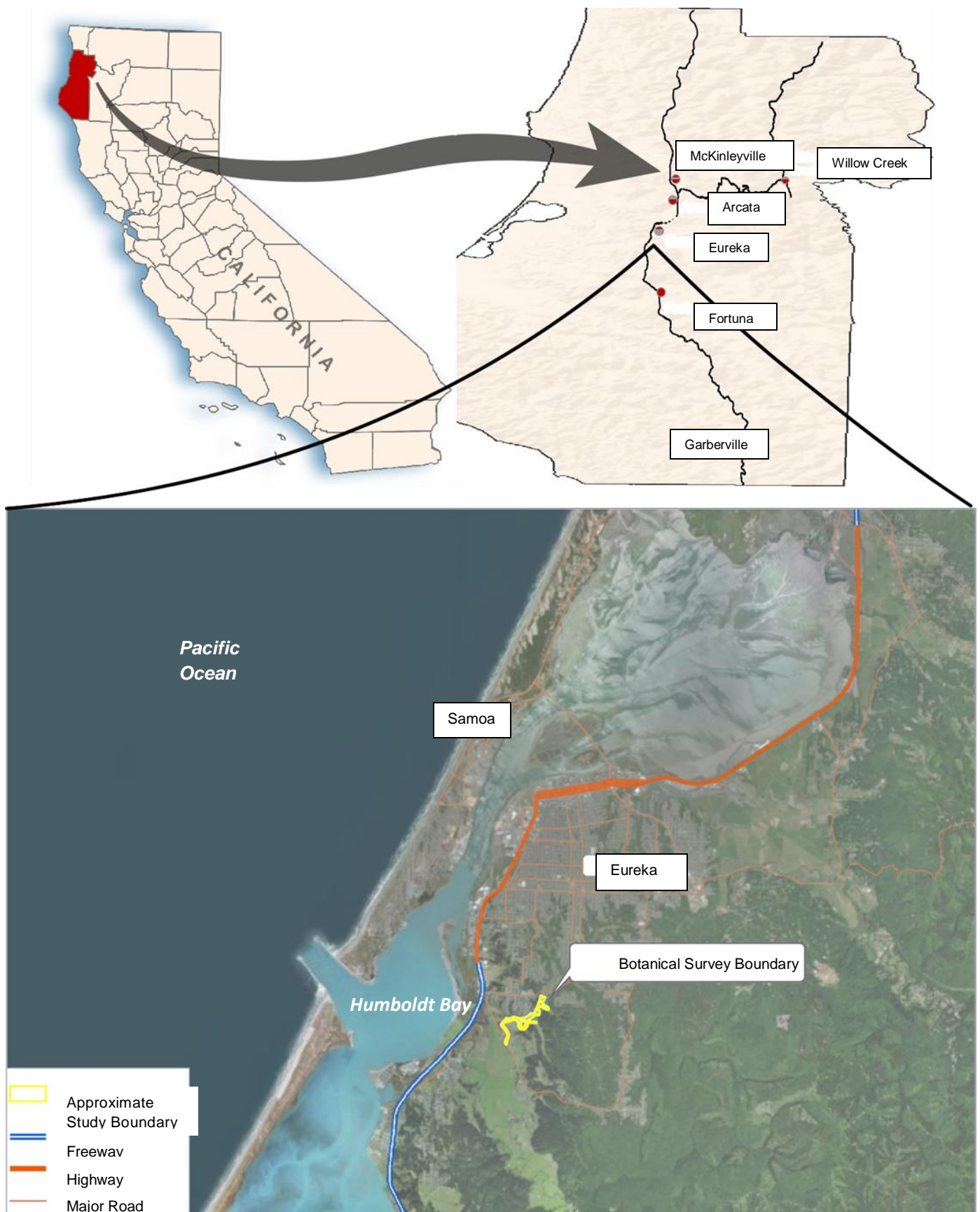


Figure 2: 2021 Martin Slough Restoration Project Study Boundary



Table 2: Special status plant species with potential to occur in the PSB.

Taxa	Common Name	Listing Status	Typical Habitat	Likelihood of Occurrence
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	1B.1	Coastal dunes	No Potential.
<i>Angelica lucida</i>	sea-watch	4.2	Coastal bluff scrub, coastal dunes, coastal scrub, marshes and swamps (coastal salt)	Moderate Potential.
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	1B.2	Coastal dunes Coastal scrub Marsh & swamp Wetland	Low Potential.
<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	4.3	Gravelly streambanks, chaparral, cismontane woodland, lower montane coniferous forest	No Potential.
<i>Cardamine angulata</i>	seaside bittercress	2B.1	Lower montane & North coast (NC) coniferous forest Wetland	No Potential.
<i>Carex arcta</i>	northern clustered sedge	2B.2	Bog & fen NC coniferous forest Wetland	Low Potential.
<i>Carex leptalea</i>	bristle-stalked sedge	2B.2	Bog, fen, freshwater marsh, Wetland, swamp, Meadow & seep	Moderate Potential.
<i>Carex lyngbyei</i>	Lyngbye's sedge	2B.2	Marsh & swamp Wetland	Present
<i>Carex praticola</i>	northern meadow sedge	2B.2	Meadow & seep Wetland	Low Potential.
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	1B.2	Marsh & swamp Salt marsh Wetland	Low Potential
<i>Castilleja littoralis</i>	Oregon coast paintbrush	2B.2	Coastal bluff scrub Coastal dunes Coastal scrub	Low Potential.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	1B.2	Marsh & swamp salt marsh wetland	Low Potential

Taxa	Common Name	Listing Status	Typical Habitat	Likelihood of Occurrence
<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	4.3	Streambanks, sometimes seeps, sometimes roadsides. NC coniferous forest. Riparian forest	No Potential.
<i>Clarkia amoena</i> ssp. <i>whitneyi</i>	Whitney's farewell-to-spring	1B.1	Coastal bluff scrub, Coastal scrub	Low Potential.
<i>Collinsia corymbosa</i>	round-headed Chinese-houses	1B.2	Coastal dunes	No Potential. Dune habitat not present
<i>Erysimum menziesii</i>	Menzies' wallflower	F/S E, 1B.1	Coastal dunes	No Potential. Dune habitat not present
<i>Erythronium revolutum</i>	coast fawn lily	2B.2	Bog & fen broadleaved upland forest NC coniferous	No Potential. Upland forest habitat not present
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	1B.2	Coastal bluff scrub coastal prairie valley & foothill grassland	Low Potential.
<i>Gilia millefoliata</i>	dark-eyed gilia	1B.2	Coastal dunes	No Potential. Dune habitat not present
<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	4.2	Coastal dunes	No Potential. Dune habitat not present
<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	1B.2	Coastal bluff scrub Coastal dunes	No Potential.
<i>Hesperolinon adenophyllum</i>	glandular western flax	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	No Potential.
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	1B.2	Coastal bluff scrub coastal dunes coastal scrub	No Potential.
<i>Lathyrus japonicus</i>	seaside pea	2B.1	Coastal dunes	No Potential. Dune habitat not present
<i>Lathyrus palustris</i>	marsh pea	2B.2	Bog, fen, marsh, swamp coastal prairie & scrub lower montane & NC coniferous forest	Moderate Potential.

Taxa	Common Name	Listing Status	Typical Habitat	Likelihood of Occurrence
<i>Layia carnosa</i>	beach layia	FE, SE, 1B.1	Coastal dunes coastal scrub	No Potential. Dune habitat not present
<i>Lilium occidentale</i>	western lily	FE, SE, 1B.1	Coastal bluff scrub & prairie freshwater marsh, bog, fen, & swamp NC coniferous	Low Potential
<i>Lilium kelloggii</i>	Kellogg's lily	4.3	Openings, roadsides Lower montane & NC coniferous forest	No Potential.
<i>Listera cordata</i>	heart-leaved twayblade	4.2	Bogs and fens lower montane & NC coniferous forest	No Potential.
<i>Lycopodium clavatum</i>	running-pine	4.1	Lower montane & NC coniferous forest marsh & swamp	No Potential.
<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	4.2	Broadleaved upland forest lower montane & NC coniferous forest meadow & seep	No Potential.
<i>Monotropa uniflora</i>	ghost-pipe	2B.2	Broadleaved upland forest NC coniferous forest	No Potential.
<i>Montia howellii</i>	Howell's montia	2B.2	Meadow, seep, wetland & vernal pool NC coniferous	Low Potential.
<i>Oenothera wolfii</i>	Wolf's evening-primrose	1B.1	Coastal bluff scrub coastal dunes coastal prairie	Low Potential.
<i>Pityopus californicus</i>	California pinefoot	4.2	Mesic. Broadleaved upland forest. Lower montane/Upper montane / NC coniferous forest	No Potential.
<i>Pleuropogon refractus</i>	nodding semaphore grass	4.2	Mesic. Lower montane & NC coniferous forest. Meadows and seeps. Riparian	Low Potential
<i>Polemonium carneum</i>	Oregon polemonium	2B.2	Coastal prairie, Coastal scrub, Lower montane coniferous forest	Low Potential.
<i>Puccinellia pumila</i>	dwarf alkali grass	2B.2	Marsh & swamp meadow & seep wetland	Moderate Potential.

Taxa	Common Name	Listing Status	Typical Habitat	Likelihood of Occurrence
<i>Ribes laxiflorum</i>	trailing black currant	4.3	Sometimes roadside. NC coniferous forest	Low Potential.
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	4.2	Broadleaved upland forest coastal prairie & scrub NC coniferous & riparian forest	Moderate Potential.
<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	1B.2	Broadleaved upland forest coastal prairie	Low Potential.
<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast sidalcea	1B.2	Lower montane & NC coniferous forest Meadow seep	Low Potential.
<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	2B.1	Marsh & swamp wetland	Moderate Potential
<i>Viola palustris</i>	alpine marsh violet	2B.2	Bog & fen coastal scrub wetland	Low Potential.
Non-vascular plants				
<i>Anomobryum julaceum</i>	slender silver moss	4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest	Low Potential.
<i>Bryoria pseudocapillaris</i>	false gray horsehair lichen	3.2	Conifers coastal dunes (SLO Co.) NC coniferous forest (immediate coast)	Low Potential.
<i>Bryoria spiralifera</i>	twisted horsehair lichen	1B.1	NC coniferous forest	Low Potential.
<i>Fissidens pauperculus</i>	minute pocket moss	1B.2	NC coniferous forest redwood	Low Potential
<i>Trichodon cylindricus</i>	cylindrical trichodon	2B.2	Broadleaved upland forest upper montane coniferous forest	No Potential
<i>Usnea longissima</i>	long-beard lichen	4.2	Broadleaved upland forest north coast coniferous forest old growth redwood	No Potential
Terrestrial Communities				
Northern Foredune Grassland		None	Coastal dunes	Not present. Habitat not observed during survey
Coastal Terrace Prairie		None	Coastal prairie	Not present. Habitat not observed during surveys

Taxa	Common Name	Listing Status	Typical Habitat	Likelihood of Occurrence
Northern Coastal Salt Marsh		None	Marsh & swamp wetland	Present. Some salt marsh habitat is currently present on site.
Sitka Spruce Forest		None	Coastal forests	Not present. Habitat not observed during site surveys
Source: CNDDDB and CNPS accessed 5/7/2020. Assessment area consists of USGS 7.5 minute quadrangles: Eureka, Arcata South, Arcata North, Tyee City, Cannibal Island, Fields Landing, McWhinney Creek, Fortuna, Ferndale				
FEDERAL--U.S. Fish and Wildlife Service (USFWS)				
FE - Federal Endangered				
FT - Federal Threatened				
FC - Federal Candidate for listing				
FSC - United States Fish and Wildlife Service Federal Species of Special Concern				
STATE--California Department of Fish and Wildlife (CDFW)				
SE - State Endangered				
ST - State Threatened				
SR – State Rare				
CSC - CDFW Species of Special Concern				
SLC - Species of Local Concern				
CFP - California Fully Protected Species				
California Native Plant Society Rare Plant Ranks (CRPR)				
1A- Presumed Extirpated in California and either Rare or extinct elsewhere				
1B - Rare, Threatened, or Endangered in California and elsewhere				
2 - Rare, Threatened or Endangered in California, but more common elsewhere				
2A- Plants Presumed Extirpated in California, but more common elsewhere				
2B- Plants Rare, Threatened, or Endangered in California, but more common elsewhere				
3 - Review List (more information needed)				
4 - Watch List (limited distribution in California)				
Threat Ranks:				
_0.1 Seriously threatened in California				
_0.2 Moderately threatened in California				
_0.3 Not very threatened in California				
POTENTIAL TO OCCUR				
No Potential	Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime)			
Low Potential	Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.			
Moderate Potential	Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.			
High Potential	All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.			
SURVEY RESULTS				
Not Present	Species not observed during survey and lacks habitat components and unlikely to be present.			
Not Observed	Species not observed during plant survey although potential habitat is present.			

Table 3: 2021 Species list of plants observed within the PSB.

<i>Scientific Name</i>	<i>Common Name</i>
<i>Achillea millefolium</i>	western yarrow
<i>Alnus rubra</i>	red alder
<i>Anagallis arvensis</i>	scarlet pimpernel
<i>Anthoxanthum odoratum</i>	sweet vernal grass
<i>Athyrium filix-femina</i> var. <i>cyclosorum</i>	Western lady fern
<i>Atriplex</i> sp.	saltbush
<i>Baccharis pilularis</i>	coyote brush
<i>Bellis perennis</i>	English daisy
<i>Briza maxima</i>	rattlesnake grass
<i>Bromus hordeaceus</i>	soft chess brome
<i>Carex lyngbyei</i>	Lyngbye's sedge
<i>Carex obnupta</i>	slough sedge
<i>Claytonia perfoliata</i>	miner's lettuce
<i>Convolvulus arvensis</i>	bindweed
<i>Cotula coronopifolia</i>	brass-buttons
<i>Dactylis glomerata</i>	orchard grass
<i>Distichlis spicata</i>	salt grass
<i>Eleocharis macrostachya</i>	spike rush
<i>Epilobium ciliatum</i>	Northern willow herb
<i>Erigeron foliosus</i>	leafy daisy
<i>Equisetum arvense</i>	common horsetail
<i>Equisetum telmateia</i> subsp. <i>braunii</i>	giant horsetail
<i>Festuca myuros</i>	rattail grass
<i>Festuca perennis</i>	meadow fescue
<i>Festuca rubra</i>	red fescue

<i>Filamentous algae</i>	
<i>Galium aparine</i>	goose grass
<i>Galium triflorum</i>	sweet-scented bedstraw
<i>Geranium dissectum</i>	cut leaved geranium
<i>Glyceria leptostachya</i>	narrow manna grass
<i>Holcus lanatus</i>	velvet grass
<i>Hordeum brachyantherum</i> <i>ssp. californicum</i>	California barley
<i>Hydrocotyl sp.</i>	water penny
<i>Hypochaeris radicata</i>	rough cats-ear
<i>Juncus bufonius</i>	toad rush
<i>Juncus effusus</i>	common rush
<i>Juncus ensifolius</i>	dagger rush
<i>Juncus patens</i>	spreading rush
<i>Lathyrus odoratus</i>	common sweet pea
<i>Lemna sp.</i>	duckweed
<i>Linum bienne</i>	pale flax
<i>Lysichiton americanus</i>	skunk cabbage
<i>Lonicera involucrata</i>	twinberry
<i>Lotus corniculatus</i>	bird's-foot trefoil
<i>Matricaria discoidea</i>	pineapple weed
<i>Mimulus sp.</i>	monkeyflower sp.
<i>Myosotis laxa</i>	small-flowered forget-me-not
<i>Nymphaea sp.</i>	waterlily
<i>Oenanthe sarmentosa</i>	water parsley
<i>Phalaris arundinacea</i>	reed canarygrass
<i>Plantago lanceolata</i>	English plantain
<i>Plantago major</i>	common plantain

<i>Poa annua</i>	annual blue grass
<i>Poa pratensis</i> ssp. <i>pratensis</i>	Kentucky blue grass
<i>Polystichum munitum</i>	Western sword fern
<i>Populus balsamitera</i> ssp.	black cottonwood
<i>Potamogeton</i> sp.	pondweed
<i>Potentilla anserina</i>	pacific silverweed
<i>Ranunculus repens</i>	creeping buttercup
<i>Ranunculus</i> sp.	buttercup sp.
<i>Raphanus sativus</i>	radish
<i>Ribes sanguineum</i>	red-flowering currant
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rubus spectabilis</i>	salmon berry
<i>Rubus ursinus</i>	California blackberry
<i>Rubus parviflorus</i>	thimbleberry
<i>Rumex crispus</i>	curly dock
<i>Rumex occidentalis</i>	Western dock
<i>Salix hookeriana</i>	coastal willow
<i>Sanicula crassicaulis</i>	snake root
<i>Sequoia sempervirens</i>	coast redwood
<i>Scirpus microcarpus</i>	bulrush
<i>Sonchus</i> sp.	sow thistle
<i>Sparganium angustifolium</i>	narrow-leaved bur-reed
<i>Spergularia rubra</i>	red sand-spurry
<i>Stachys ajugoides</i>	hedge-nettle
<i>Stachys chamissonis</i>	coast hedge nettle
<i>Stellaria calycantha</i>	Northern starwort
<i>Taraxacum officinale</i>	common dandelion

<i>Thelypteris nevadensis</i>	Nevada marsh fern
<i>Trifolium dubium</i>	little hop clover
<i>Trifolium pratense</i>	red clover
<i>Trifolium repens</i>	white clover
<i>Triglochin maritimum</i>	sea arrow-grass
<i>Typha sp.</i>	cattail
<i>Veronica sp.</i>	speedwell sp.
<i>Vicia americana</i> subsp. <i>americana</i>	American vetch
<i>Vicia sativa</i>	spring vetch
Bold text in table above denotes CRPR List 1A, 1B or 2 plant species	
California Native Plant Society Rare Plant Ranks (CRPR)	
1A- Presumed Extirpated in California and either Rare or extinct elsewhere	
1B - Rare, Threatened, or Endangered in California and elsewhere	
2 - Rare, Threatened or Endangered in California, but more common elsewhere	
2A- Plants Presumed Extirpated in California, but more common elsewhere	