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September 15, 2022

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Subject: Preliminary Special-status Botanical Survey Report, Redwood Multipurpose Marine Terminal, Samoa, California

Shane Phillips:

Introduction

This preliminary special-status botanical survey report provides the results of protocol-level botanical surveys at the proposed Redwood Multipurpose Marine Terminal (RMMT) site in Samoa, California. The surveys were completed to inform conceptual planning for the proposed terminal and is intended as baseline information regarding the existing botanical resources within the study area.

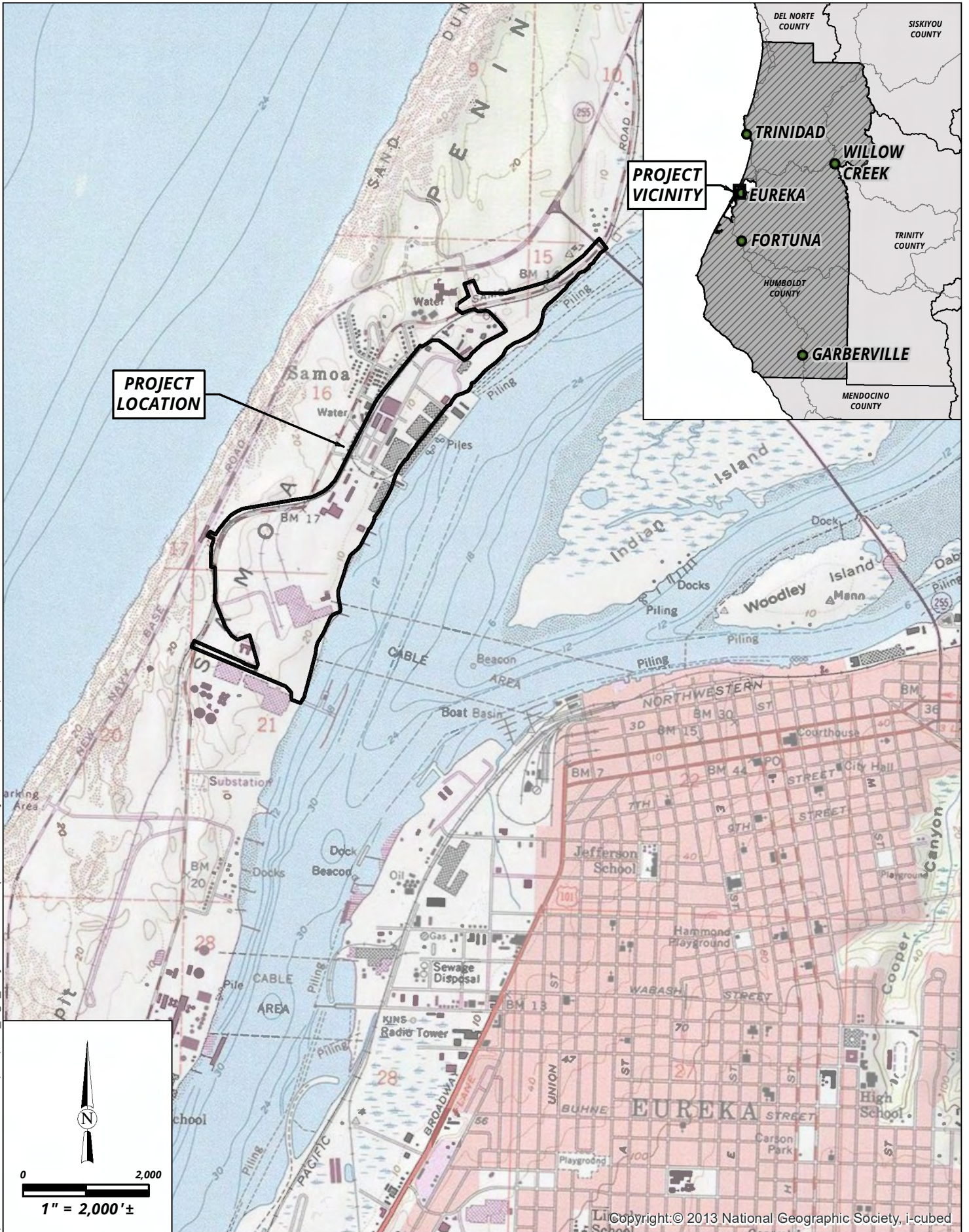
This survey effort included botanical surveys following California Department of Fish & Wildlife (CDFW) protocol (CDFW, 2018) of the entire study area for presence of special-status plants and to determine suitability of habitat for the potential occurrence of special-status plant species.

Site Description

The RMMT site is located on the Samoa Peninsula, a narrow peninsula that separates Humboldt Bay from the Pacific Ocean (Figure 1). The subject site has a long industrial history of timber production that has resulted in significant grading, infilling, and expansion over previous intertidal and dune lands along the Humboldt Bay shoreline. The majority of the study area has been previously developed with paved surfaces, foundations, drainageways and compacted soils remaining following demolitions of structures and industrial facilities. Consequently, the majority of the site is dominated by non-native, ruderal species or is unvegetated where concrete and asphalt remains. Natural vegetation does still occur within the study area, but it is sparse and patchy, separated by large, formerly developed areas. Intact native vegetation occurs along the periphery of the study area especially along Humboldt Bay in the northern portion of the study area and along Vance Avenue in the southwestern portion of the study area. Many of the native vegetation areas meet the criteria for sensitive vegetation communities and will be considered Environmentally Sensitive Habitat Areas (ESHA) by the California Coastal Commission.



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Humboldt Bay Harbor, Rec., & Cons. District
 Redwood Marine Multipurpose Terminal
 Eureka, California

Project Location Map
Botanical Survey Results
 September 2022 - 022054.400

Figure
1

Survey Methods

A review of existing data and information related to special-status plant species that may have the potential to occur within the study area was compiled from several sources (CDFW, 2022a, 2022b; CNPS, 2022; USFWS, 2022) (see Attachment 1, Table 1). Plants observed during site visits were identified to the lowest taxonomic level possible to distinguish special-status species from others. Based on the list of special-status species with potential to occur onsite, suitable habitat availability for each species was determined using the following criteria:

- **None.** Species listed as having “none” are those species for which:
 - there is no suitable habitat present in the study area (that is, habitats in the study area are unsuitable for the species requirements [for example, elevation, hydrology, plant community, disturbance regime, etc.]).
- **Low.** Species listed as having a “low” potential to occur in the study area are those species for which:
 - there is no known record of occurrence in the vicinity, and
 - there is marginal or very limited suitable habitat present within the study area.
- **Moderate.** Species listed as having a “moderate” potential to occur in the study area are those species for which:
 - there are known records of occurrence in the vicinity, and
 - there is suitable habitat present in the study area.
- **High.** Species listed as having a “high” potential to occur on the study area are those species for which:
 - there are known records of occurrence in the vicinity (there are many records and/or records in close proximity), and
 - there is highly suitable habitat present in the study area.
- **Present.** Species listed as “present” in the study area are those species for which:
 - the species was observed in the study area.

Results

A total of 346 botanical species were observed within the study area (see Figures 1 and 2). Species composition was 51% native, reflecting the history of use onsite. Varied habitat from salt marsh to remnant dune habitat in addition to the introduction of non-native species has resulted in a high level of plant diversity within the study area. Suitable habitat is available onsite for 17 out of the 49 special-status plant species on the scoping list. Three special-status plant species were observed within the study area during surveys (*Angelica lucida*, *Castilleja ambigua* var. *humboldtiensis*, and *Chloropyron maritimum* ssp. *Palustre*); see Figures 2, 3, and 4), and two additional species (*Gilia millefoliata*) and (*Erysimum menziesii*) were observed immediately west of the study area. See Appendix 1, Table 1 for special-status plant species known to occur in the vicinity and their potential to occur within the study area, and Appendix 1, Table 2 for all plant species observed during protocol surveys.



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EXPLANATION

- RARE PLANT (INDIVIDUAL)
- RARE PLANTS (GROUP)
- SHEET INDEX
- STUDY AREA

0 600
1" = 600'±

PHOTO SOURCE:
UAV, SHN, APRIL 2022



Humboldt Bay Harbor, Rec., & Cons. District
Redwood Marine Multipurpose Terminal
Eureka, California

Study Area Figure
Botanical Survey Results **2**
September 2022 - 022054.400

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EXPLANATION

- ☆ *ANGELICA LUCIDA*
- ▲ *CHLOROPYRON MARITIMUM*
- ▨ *CHLOROPYRON MARITIMUM*
- *CASTILLEJA AMBIGUA HUMBOLDTIENSIS*
- *STUDY AREA*

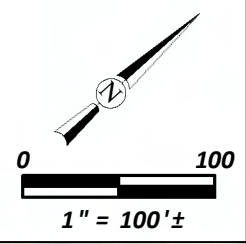


PHOTO SOURCE:
UAV, SHN, APRIL 2022



Humboldt Bay Harbor, Rec., & Cons. District
Redwood Marine Multipurpose Terminal
Eureka, California

Rare Plant Locations
Botanical Survey Results
September 2022 - 022054.400

Figure
3

EXPLANATION

☆ ANGELICA LUCIDA

□ STUDY AREA

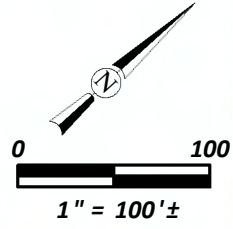


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UAV, SHN, APRIL 2022



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Humboldt Bay Harbor, Rec., & Cons. District
Redwood Marine Multipurpose Terminal
Eureka, California

Rare Plant Locations
Botanical Survey Results
September 2022 - 022054.400

Figure
4

Shane Phillips

Preliminary Special-status Botanical Survey Report, RMMT, Samoa, CA

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Respectfully,

SHN



Joseph Saler
Senior Botanist

JS:ame

Appendix 1: Species Lists

References

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Species Lists

1

Table 1
Special Status Plant Species List CNDDDB, CNPS, IPaC: Eureka and Surrounding 7.5-minute quadrangles
RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	Nyctaginaceae	None	None	G4G5-T2	S1	1B.1	June-Oct.	Coastal dunes and coastal strand.	Foredunes and interdunes with sparse cover. Usually the plant closest to the ocean. 0-10 m.	Moderate
<i>Angelica lucida</i>	sea-watch	Apiaceae	None	None	G5	S3	4.2	May-Sept.	Coastal strand	Coastal bluff scrub, coastal dunes, coastal scrub, coastal salt marshes. 0-150 m	Present
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	Fabaceae	None	None	G2T2	S2	1B.2	April-Oct.	Coastal dunes, marshes & swamps, coastal scrub.	Mesic sites in dunes or along streams or coastal salt marshes. 0-155 m.	Moderate
<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	Fabaceae	None	None	G4T4	S4	4.3	April-July	Chaparral, cismontane woodland, lower montane conifer forest.	Open grassy hillsides, gravelly flats in valleys, and gravel bars of stream beds. 30-825 m.	None
<i>Cardamine angulata</i>	seaside bittercress	Brassicaceae	None	None	G5	S1	2B.1	Jan.-July	Lower montane, conifer forest, N. coast conifer forest, wetland	Wet areas, streambanks. 90-155 m.	None
<i>Carex arcta</i>	northern clustered sedge	Cyperaceae	None	None	G5	S1	2B.2	June-Sept.	Bogs and fens, north coast conifer forest.	Mesic sites. 60-1405 m.	None
<i>Carex leptalea</i>	bristle-stalked sedge	Cyperaceae	None	None	G5	S1	2B.2	March-July	Bogs and fens, meadows and seeps, marshes and swamps.	Mostly known from bogs and wet meadows. 3-1395 m.	None
<i>Carex lyngbyei</i>	Lyngbye's sedge	Cyperaceae	None	None	G5	S3	2B.2	April-August	Marsh & swamp (brackish or freshwater).	0-200 m.	Moderate
<i>Carex praticola</i>	northern meadow sedge	Cyperaceae	None	None	G5	S2	2B.2	May-July	Meadows and seeps.	Moist to wet meadows. 15-3200 m.	None



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RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	Orobanchaceae	None	None	G4T2	S2	1B.2	April-August	Marshes and swamps.	Coastal saltmarsh with <i>Spartina</i> , <i>Distichlis</i> , <i>Salicornia</i> , <i>Jaumea</i> . 0-20 m.	Present
<i>Castilleja litoralis</i>	Oregon coast paintbrush	Orobanchaceae	None	None	G3	S3	2B.2	June	Coastal bluff scrub, coastal dunes, coastal scrub.	Sandy sites. 5-255 m.	Low
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	Orobanchaceae	None	None	G4?T2	S2	1B.2	June-Oct.	Coastal salt marsh.	Usually in coastal salt marsh with <i>Salicornia</i> , <i>Distichlis</i> , <i>Jaumea</i> , <i>Spartina</i> , etc. 0-10 m.	Present
<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	Saxifragaceae	None	None	G5	S3	4.3	Feb.-June	North Coast coniferous forest, riparian forest	Streambanks, sometimes seeps, sometimes roadsides. 10-220 m.	None
<i>Collinsia corymbosa</i>	round-headed Chinese-houses	Plantaginaceae	None	None	G1	S1	1B.2	April-June	Coastal Dunes	Coastal dunes from 10-30 m	Low-One unconfirmed occurrence recorded in Humboldt Co.
<i>Eleocharis parvula</i>	small spikerush	Cyperaceae	None	None	G5	S4	4.3	July-August	Marsh & swamp, salt marsh, wetland	In coastal salt marshes. 1-3020 m.	High
<i>Erysimum menziesii</i>	Menzies' wallflower	Brassicaceae	E	E	G1	S1	1B.1	March-Sept.	Coastal dunes.	Localized on dunes and coastal strand. 0-35 m.	High
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	None	None	G4G5	S3	2B.2	March-August	Bogs & fens, broadleaf upland forest, north coast conifer forest.	Mesic sites; streambanks. 60-1405 m.	None
<i>Fissidens pauperculus</i>	minute pocket moss	Fissidentaceae	None	None	G3?	S2	1B.2	Lichen	North coast coniferous forest, Redwood.	Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 10-1024 m.	None



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RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Polemoniaceae	None	None	G5T3	S2	1B.2	April-August	Coastal bluff scrub, chaparral, coastal prairie, valley & foothill grassland.	5-1345 m.	Low
<i>Gilia millefoliata</i>	dark-eyed gilia	Polemoniaceae	None	None	G2	S2	1B.2	April-July	Coastal dunes.	1-60 m.	High
<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	Apiaceae	None	None	G5T5	S3	4.2	May-August	Coastal Dunes	0-20 m.	Moderate
<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	Asteraceae	None	None	G4T3	S2	1B.2	March-June	Coastal bluff scrub, coastal dunes, coastal prairie.	Sandy bluffs and flats. 0-215 m.	High
<i>Hosackia gracilis</i>	harlequin lotus	Fabaceae	None	None	G4	S3	4.2	March-July	Broadleaf upland forest, coast bluff scrub, coast prairie, coast scrub, closed-cone conifer forest, meadow, seep, marsh & swamp, N. coast conifer forest, valley & foothill grassland.	Wetlands and roadsides. 0-700 m.	Low
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	Asteraceae	None	None	G3T2	S2	1B.2	Jan.-Nov.	Coastal bluff scrub, coastal dunes, coastal scrub.	5-185 m.	Low
<i>Lathyrus glandulosus</i>	sticky pea	Fabaceae	None	None	G3	S3	4.3	April-June	Cismontane woodland.	In oak woodlands upland from the coast redwood forests & along roadsides. 300-800 m.	None
<i>Lathyrus japonicus</i>	seaside pea	Fabaceae	None	None	G5	S2	2B.1	May-August	Coastal dunes.	3-65 m.	Moderate
<i>Lathyrus palustris</i>	marsh pea	Fabaceae	None	None	G5	S2	2B.2	March-August	Bogs & fens, lower montane conifer forest, marsh & swamp, north coast conifer forest, coastal prairie, coastal scrub.	Moist coastal areas. 2-140 m.	Low



Table 1
Special Status Plant Species List CNDB, CNPS, IPaC: Eureka and Surrounding 7.5-minute quadrangles
RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Layia carnosa</i>	beach layia	Asteraceae	E	E	G2	S2	1B.1	March-July	Coastal dunes, coastal scrub.	On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. 0-30 m.	Moderate
<i>Lilium kelloggii</i>	Kellogg's lily	Liliaceae	None	None	G3	S3	4.3	May-August	Lower montane conifer forest, N. coast conifer forest.	Gaps and roadsides in conifer forest. 3-1300 m.	None
<i>Lilium occidentale</i>	western lily	Liliaceae	E	E	G1	S1	1B.1	June-July	Coastal scrub, freshwater marsh, bogs & fens, coastal bluff scrub, coast prairie, N. coast conifer forest, marshes and swamps.	Well-drained, old beach washes overlain with wind-blown alluvium and organic topsoil; usually near margins of Sitka spruce. 3-110 m.	None
<i>Listera cordata</i>	heart-leaved twayblade	Orchidaceae	None	None	G5	S4	4.2	Feb.-July	Lower montane conifer forest, north coast conifer forest.	Bogs and fens, 5-1370 m.	None
<i>Lycopodium clavatum</i>	running-pine	Lycopodiaceae	None	None	G5	S3	4.1	June-Sept.	Lower montane conifer forest, north coast conifer forest, marsh & swamp.	Forest understory, edges, openings, roadsides; mesic sites with partial shade and light. 45-1225 m.	None
<i>Mitellastruca caulescens</i>	leafy-stemmed mitrewort	Saxifragaceae	None	None	G5	S4	4.2	March-Oct.	Broadleaf upland forest, lower montane conifer forest, meadow & seep, N. coast conifer forest.	Mesic sites. 5-1700 m.	None
<i>Monotropa uniflora</i>	ghost-pipe	Ericaceae	None	None	G5	S2	2B.2	June-Sept.	Broadleaved upland forest, north coast conifer forest.	Often under redwoods or west hemlock. 15-855 m.	None
<i>Montia howellii</i>	Howell's montia	Montiaceae	None	None	G3G4	S2	2B.2	Feb.-May	Meadows and seeps, north coast coniferous forest, vernal pools.	Vernally wet sites; often on compacted soil. 10-1005 m.	Moderate



Table 1
Special Status Plant Species List CNDDDB, CNPS, IPaC: Eureka and Surrounding 7.5-minute quadrangles
RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Oenothera wolfii</i>	Wolf's evening-primrose	Onagraceae	None	None	G2	S1	1B.1	May-Oct.	Coastal bluff scrub, coastal dunes, coastal prairie, low montane conifer forest.	Sandy substrates; usually mesic sites. 0-125 m.	Moderate
<i>Pityopus californicus</i>	California pinefoot	Ericaceae	None	None	G4G5	S4	4.2	March-August	Broadleaf upland forest, upper montane and, N. coast conifer forest, low montane conifer forest.	Deep shade with few understory species, often under layer of duff, in rocky to clay loam soil. 15-2225 m.	None
<i>Pleuropogon refractus</i>	nodding semaphore grass	Poaceae	None	None	G4	S4	4.2	March-August	Meadow & seep, low montane conifer forest, N. coast conifer forest, riparian forest.	Mesic sites along streams, grassy flats in shaded redwood groves. 0-1600 m.	None
<i>Puccinellia pumila</i>	dwarf alkali grass	Poaceae	None	None	G4?	SH	2B.2	July	Marshes and swamps.	Mineral spring meadows and coastal salt marshes. 1-10 m.	Low
<i>Ribes laxiflorum</i>	trailing black currant	Grossulariaceae	None	None	G5	S4	4.3	March-August	N. coast conifer forest, Redwood forests.	Grows over logs and stumps in moist, wet places. 5-1395 m.	None
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	None	None	G3	S3	4.2	March-August	Broadleaf upland forest, coast prairie, coast scrub, N. coast conifer forest, riparian.	Woodlands and clearings near coast; often in disturbed areas. 0-730 m.	Low
<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	Malvaceae	None	None	G5T2	S2	1B.2	May-August	Coastal bluff scrub, coastal prairie, north coast conifer forest.	Open coastal forest; roadcuts. 5-1255 m.	Low
<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	Malvaceae	None	None	G5T1	S1	1B.2	June-August	Meadow & seep, N. coast & low montane conifer forest.	Near meadows, in gravelly soil. 5-1805 m.	None
<i>Silene scouleri</i> ssp. <i>scouleri</i>	Scouler's catchfly	Caryophyllaceae	None	None	G5T4 T5	S2S3	2B.2	June-August	Coastal bluff scrub, coastal prairie, valley and foothill grassland.	5-315 m.	None



Table 1
Special Status Plant Species List CNDDDB, CNPS, IPaC: Eureka and Surrounding 7.5-minute quadrangles
RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	FedList	CalList	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	Caryophyllaceae	None	None	G5T4	S1	2B.1	June-August	Marshes and swamps (coastal salt marshes).	0-3 m.	High
<i>Sulcaria spiralifera</i>	twisted horsehair lichen	Parmeliaceae	None	None	G3G4	S2	1B.2	Lichen	Coastal dunes, N. coast conifer forest (immediate coast)	Usually on conifers. 0-90 m.	Moderate
<i>Trichodon cylindricus</i>	cylindrical trichodon	Ditrichaceae	None	None	G4	S2	2B.2	Moss	Broadleafed upland forest, upper montane coniferous forest.	In openings on sandy or clay soils on roadsides, stream banks, trails or in fields. 50-1500 m.	None
<i>Usnea longissima</i>	Methuselah's beard lichen	Parmeliaceae	None	None	G4	S4	4.2	Lichen	North coast coniferous forest, broadleaf upland forest.	In the "redwood zone" on tree branches of a variety of trees, incl. big leaf maple, oaks, ash, Douglas-fir, and bay. 45-1465 m in California.	None
<i>Viola palustris</i>	alpine marsh violet	Violaceae	None	None	G5	S1S2	2B.2	March-August4	Coastal scrub, bogs and fens.	Swampy, shrubby places in coastal scrub or coastal bogs. 0-150 m.	None

1. Species indicator status as assigned by Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and California Department of Fish and Wildlife (CDFW)

C: candidate

CT: candidate threatened

D: delisted

DPS: distinct population

segment

E: endangered

ESU: evolutionarily significant

unit

FP: fully protected

PT: proposed threatened

SSC: species of special concern

T: threatened

WL: watch list



Table 1

Special Status Plant Species List CNDDB, CNPS, IPaC: Eureka and Surrounding 7.5-minute quadrangles

RMMT Biological Assessment 3/30/2022

Scientific Name	Common Name	Family	Fedlist	Callist	GRank	SRank	RPlant Rank	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
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2. Species Heritage rank as assigned by California Department of Fish and Wildlife (CDFW)

G1/S1: critically imperiled

G2/S2: imperiled

G3/S3: vulnerable

G4/S4: apparently secure

G5/S5:

secure



Table 2
Botanical Species Observed 4/28/2020, 6/4/2020, and 4/5-4/8, 4/13-4/19, 5/3-5/6/2022, and 7/7/2022
RMMT Biological Assessment, Samoa, CA

Scientific Name	Common Name	Family	Native?
Trees			
<i>Accacia melanoxylon</i>	blackwood acacia	Fabaceae	1 ¹
<i>Alnus rubra</i>	red alder	Betulaceae	Y ²
<i>Cordyline australis</i>	cabbage tree	Laxmanniaceae	N ³
<i>Eucalyptus globulus</i>	bluegum	Myrtaceae	1
<i>Hesperoagyris macrocarpa</i>	Monterey cypress	Cupressaceae	N
<i>Ilex aquifolium</i>	English holly	Aquifoliaceae	1
<i>Malus fusca</i>	Oregon apple	Rosaceae	Y
<i>Malus pumila</i>	wild apple	Rosaceae	N
<i>Picea sitchensis</i>	Sitka spruce	Pinaceae	Y
<i>Pinus contorta</i> var. <i>contorta</i>	beach pine	Pinaceae	Y
<i>Pinus radiata</i>	Monterey pine	Pinaceae	N
<i>Populus trichocarpa</i>	black cottonwood	Salicaceae	Y
<i>Prunus cerasifera</i>	wild plum	Rosaceae	1
<i>Prunus persica</i>	wild peach	Rosaceae	N
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	Douglas fir	Pinaceae	Y
<i>Salix hookeriana</i>	coast willow	Salicaceae	Y
<i>Salix lasiandra</i> var. <i>lasiandra</i>	pacific willow	Salicaceae	Y
<i>Salix scouleriana</i>	Scouler's willow	Salicaceae	Y
<i>Salix sitchensis</i>	Sitka willow	Salicaceae	Y
Shrubs			
<i>Arctostaphylos uva-ursi</i>	bear mat	Ericaceae	Y
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	coyote brush	Asteraceae	Y
<i>Ceanothus prostrates</i> var. <i>prostratus</i>	mahala mat	Rhamnaceae	Y
<i>Cistus salvifolius</i>	rock rose	Cistaceae	N
<i>Cotoneaster franchetii</i>	Franchet's cotoneaster	Asteraceae	1
<i>Cotoneaster lacteus</i>	milk flower cotoneaster	Asteraceae	1
<i>Cotoneaster simonsii</i>	Simon's cotoneaster	Asteraceae	N
<i>Crataegus monogyra</i>	English hawthorn	Rosaceae	1
<i>Cydonia oblonga</i>	quince	Rosaceae	N
<i>Cytisus scoparius</i>	Scotch broom	Fabaceae	1
<i>Elaeagnus ebbingei</i>	lemon leaf	Elaeagnaceae	N
<i>Escallonia rubra</i>	red escallonia	Grossulariaceae	N
<i>Frangula purshiana</i> ssp. <i>purshiana</i>	cascara	Rhamnaceae	Y
<i>Fuchsia magellanica</i>	hardy fuchsia	Onagraceae	N
<i>Garrya elliptica</i>	coast silk tassel	Garryaceae	Y
<i>Genista monspessulana</i>	French broom	Fabaceae	1
<i>Juniperus chinensis</i>	Chinese juniper	Cupressaceae	N
<i>Lavandula stoechas</i>	French lavender	Lamiaceae	N
<i>Ligustrum ovalifolium</i>	California privet	Oleaceae	N
<i>Lonicera involucrata</i> var. <i>ledebourii</i>	coast twinberry	Caprifoliaceae	Y
<i>Lupinus arboreus</i>	yellow bush lupine	Fabaceae	N
<i>Morella californica</i>	California wax myrtle	Myricaceae	Y
<i>Ribes menziesii</i> var. <i>menziesii</i>	canyon gooseberry	Grossulariaceae	Y
<i>Ribes sanguineum</i> var. <i>glutinosum</i>	flowering currant	Grossulariaceae	Y
<i>Rosa rubiginosa</i>	sweetbriar	Rosaceae	N

Table 2
Botanical Species Observed 4/28/2020, 6/4/2020, and 4/5-4/8, 4/13-4/19, 5/3-5/6/2022, and 7/7/2022
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Scientific Name	Common Name	Family	Native?
<i>Rosa</i> sp.			Y
<i>Rubus armeniacus</i>	Himalayan berry	Rosaceae	I
<i>Rubus ursinus</i>	California blackberry	Rosaceae	Y
<i>Vaccinium ovatum</i>	evergreen huckleberry	Ericaceae	Y
Ferns and Allies			
<i>Athyrium filix-femina</i> var. <i>cydosorum</i>	western lady fern	Woodsiaceae	Y
<i>Dryopteris arguta</i>	California wood fern	Dryopteridaceae	Y
<i>Equisetum arvense</i>	common horsetail	Equisetaceae	Y
<i>Equisetum laevigatum</i>	smooth scouring rush	Equisetaceae	Y
<i>Equisetum telmateia</i> ssp. <i>braunii</i>	giant horsetail	Equisetaceae	Y
<i>Pentagramma triangularis</i> ssp. <i>triangularis</i>	gold back fern	Pteridaceae	Y
<i>Polypodium californicum</i>	California polypody	Polypodiaceae	Y
<i>Polypodium glycyrrhiza</i>	licorice fern	Polypodiaceae	Y
<i>Polystichum munitum</i>	sword fern	Dryopteridaceae	Y
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern	Pteridaceae	Y
<i>Sceptridium multifidum</i>	leather grape fern	Ophioglossaceae	Y
<i>Woodwardia fimbriata</i>	western chain fern	Blechnaceae	Y
Sedges and Rushes			
<i>Carex harfordii</i>	Harford's sedge	Cyperaceae	Y
<i>Carex leptopoda</i>	slender foot sedge	Cyperaceae	Y
<i>Carex obnupta</i>	slough sedge	Cyperaceae	Y
<i>Carex pansa</i>	sand dune sedge	Cyperaceae	Y
<i>Cyperus eragrostis</i>	tall flatsedge	Cyperaceae	Y
<i>Eleocharis macrostachya</i>	spikerush	Cyperaceae	Y
<i>Isolepis cernua</i>	low clubrush	Cyperaceae	Y
<i>Juncus balticus</i> ssp. <i>ater</i>	Baltic rush	Juncaceae	Y
<i>Juncus bolanderi</i>	Bolander's rush	Juncaceae	Y
<i>Juncus breweri</i>	Brewer's rush	Juncaceae	Y
<i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush	Juncaceae	Y
<i>Juncus capitatus</i>	leafy bracted dwarfrush	Juncaceae	N
<i>Juncus effusus</i> ssp. <i>pacificus</i>	common rush	Juncaceae	Y
<i>Juncus ensifolius</i>	sword leaf rush	Juncaceae	Y
<i>Juncus hesperius</i>	coast rush	Juncaceae	Y
<i>Juncus lescurii</i>	dune rush	Juncaceae	Y
<i>Juncus patens</i>	spreading rush	Juncaceae	Y
<i>Juncus phaeocephalus</i> var. <i>phaeocephalus</i>	brown headed rush	Juncaceae	Y
<i>Juncus xiphioides</i>	iris-leaved rush	Juncaceae	Y
<i>Luzula subsessilis</i>	Pacific woodrush	Juncaceae	Y
<i>Schoenoplectus americanus</i>	chairmakers bulrush	Cyperaceae	Y
<i>Schoenoplectus pungens</i> var. <i>longispicatus</i>	three square	Cyperaceae	Y
<i>Scirpus microcarpus</i>	panicled bulrush	Cyperaceae	Y
Grasses			
<i>Agrostis gigantea</i>	giant bentgrass	Poaceae	N
<i>Agrostis stolonifera</i>	creeping bentgrass	Poaceae	I

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Scientific Name	Common Name	Family	Native?
<i>Aira caryophyllea</i>	silver hairgrass	Poaceae	N
<i>Alopecurus geniculatus</i>	marsh foxtail	Poaceae	Y
<i>Ammophila arenaria</i>	European beachgrass	Poaceae	I
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Poaceae	I
<i>Avena barbata</i>	wild oat	Poaceae	I
<i>Briza maxima</i>	large quaking grass	Poaceae	I
<i>Briza minor</i>	small quaking grass	Poaceae	N
<i>Bromus diandrus</i>	ripgut brome	Poaceae	I
<i>Bromus hordeaceus</i>	soft chess	Poaceae	I
<i>Bromus racemosus</i>	smooth brome	Poaceae	N
<i>Bromus sitchensis</i> var. <i>carinatus</i>	California brome	Poaceae	Y
<i>Cortaderia jubata</i>	jubata grass	Poaceae	I
<i>Cynodon dactylon</i>	bermuda grass	Poaceae	I
<i>Cynurus echinatus</i>	dogtail grass	Poaceae	I
<i>Dactylis glomerata</i>	orchard grass	Poaceae	I
<i>Deschampsia caespitosa</i> ssp. <i>holciformis</i>	coast tufted hairgrass	Poaceae	Y
<i>Digitaria sanguinalis</i>	hairy crabgrass	Poaceae	N
<i>Distichlis spicant</i>	salt grass	Poaceae	Y
<i>Elymus mollis</i> ssp. <i>mollis</i>	American dune grass	Poaceae	Y
<i>Festuca arundinacea</i>	tall fescue	Poaceae	I
<i>Festuca bromoides</i>	brome fescue	Poaceae	N
<i>Festuca idahoensis</i>	Idaho fescue	Poaceae	Y
<i>Festuca myuros</i>	six-weeks grass	Poaceae	I
<i>Festuca perennis</i>	Italian wildrye	Poaceae	I
<i>Festuca rubra</i> ssp. <i>pruinosa</i>	red fescue	Poaceae	Y
<i>Gastridium phleoides</i>	nit grass	Poaceae	N
<i>Glyceria declinata</i>	waxy mannagrass	Poaceae	I
<i>Holcus lanatus</i>	velvet grass	Poaceae	I
<i>Hordeum brachyantherum</i> ssp. <i>brachyantherum</i>	meadow barley	Poaceae	Y
<i>Hordeum marinum</i> var. <i>gussoneanum</i>	barley	Poaceae	N
<i>Hordeum murinum</i> ssp. <i>murinum</i>	wall barley	Poaceae	N
<i>Panicum acuminatum</i>	panic grass	Poaceae	Y
<i>Parapholis incurva</i>	sicklegrass	Poaceae	N
<i>Phalaris arundinacea</i>	canary reedgrass	Poaceae	I
<i>Poa annua</i>	annual bluegrass	Poaceae	N
<i>Poa confinis</i>	beach bluegrass	Poaceae	Y
<i>Poa trivialis</i>	rough bluegrass	Poaceae	N
<i>Polypogon monspeliensis</i>	annual beardgrass	Poaceae	I
<i>Ryidoperma penicillatum</i>	hairy oatgrass	Poaceae	I
<i>Spartina densiflora</i>	dense cordgrass	Poaceae	I
Herbs			
<i>Abronia latifolia</i>	yellow sand verberna	Nyctaginaceae	Y
<i>Achillea millefolium</i>	yarrow	Asteraceae	Y

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Scientific Name	Common Name	Family	Native?
<i>Acmispon americanus</i> var. <i>americanus</i>	American bird's foot trefoil	Fabaceae	Y
<i>Acmispon parviflorus</i>	hill lotus	Fabaceae	Y
<i>Agapanthus praecox</i>	African lily	Liliaceae	N
<i>Alisma lanceolatum</i>	lanceleaf water plantain	Alismataceae	N
<i>Alisma triviale</i>	northern water plantain	Alismataceae	Y
<i>Allium triquetrum</i>	white flowered onion	Alliaceae	N
<i>Ambrosia chamissonis</i>	silver beachweed	Asteraceae	Y
<i>Anaphalis margaritacea</i>	pearly everlasting	Asteraceae	Y
<i>Angelica lucida</i>	seacoast angelica	Apiaceae	Y
<i>Anthemis cotula</i>	dog fennel	Asteraceae	N
<i>Aphanes occidentalis</i>	lady's mantle	Rosaceae	Y
<i>Arctotheca prostrata</i>	creeping capeweed	Asteraceae	I
<i>Armeria maritima</i> ssp. <i>californica</i>	sea thrift	Plumbaginaceae	Y
<i>Artemisia douglasii</i>	California mugwort	Asteraceae	Y
<i>Artemisia pycnocephala</i>	beach sagewort	Asteraceae	Y
<i>Atriplex prostrata</i>	fat-hen	Chenopodiaceae	N
<i>Baccharis glutinosa</i>	saltmarsh baccharis	Asteraceae	Y
<i>Barbarea vulgaris</i>	yellow rocket	Brassicaceae	N
<i>Bellardia trixago</i>	Mediterranean linseed	Orobanchaceae	I
<i>Bellis perennis</i>	English daisy	Brassicaceae	N
<i>Bergenia crassifolia</i>	elephant ear saxifrage	Saxifragaceae	N
<i>Brassica nigra</i>	black mustard	Brassicaceae	I
<i>Brassica rapa</i>	common mustard	Brassicaceae	I
<i>Cakile maritima</i>	sea rocket	Brassicaceae	I
<i>Calandrinia menziesii</i>	red maids	Montiaceae	Y
<i>Callitriche heterophylla</i> var. <i>heterophylla</i>	starwort	Plantaginaceae	Y
<i>Calystegia silvatica</i>	false bindweed	Convolvulaceae	N
<i>Calystegia soldanella</i>	beach morning glory	Convolvulaceae	Y
<i>Camissoniopsis cheiranthifolia</i> ssp. <i>cheiranthifolia</i>	beach evening primrose	Onagraceae	Y
<i>Capsella bursa-pastoris</i>	shepherd's purse	Brassicaceae	N
<i>Cardamine oligosperma</i>	bittercress	Brassicaceae	Y
<i>Cardionema ramosissimum</i>	sand mat	Caryophyllaceae	Y
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	Asteraceae	I
<i>Carpobrotus chilensis</i>	seafig	Aizoaceae	I
<i>Carpobrotus edulis</i>	iceplant	Aizoaceae	I
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's clover	Orobanchaceae	Y
<i>Castilleja attenuata</i>	narrowleaf owl's clover	Orobanchaceae	Y
<i>Centranthus ruber</i>	red valerian	Valerianaceae	N
<i>Cerastium fontanum</i> ssp. <i>vulgare</i>	small mouse-ear	Caryophyllaceae	N
<i>Chloropyron maritimum</i>	Point Reyes bird's-beak	Orobanchaceae	Y
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	I
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	I
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	narrowleaf miner's lettuce	Monitaceae	Y



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Scientific Name	Common Name	Family	Native?
<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	miner's lettuce	Montiaceae	Y
<i>Claytonia rubra</i>	redstem spring beauty	Montiaceae	Y
<i>Conium maculatum</i>	poison hemlock	Apiaceae	I
<i>Corethrogyne filaginifolia</i> var. <i>californica</i>	California sandaster	Asteraceae	Y
<i>Cotula coronopifolia</i>	brass buttons	Asteraceae	I
<i>Crassula connata</i>	sand pygmy weed	Crassulaceae	Y
<i>Crocsmia x crocosmiiflora</i>	montbretia	Liliaceae	I
<i>Cryptantha leiocarpa</i>	coast cryptantha	Boraginaceae	Y
<i>Cuscuta pacifica</i> var. <i>pacifica</i>	dodder	Convolvulaceae	Y
<i>Daucus carota</i>	Queen Anne's lace	Apiaceae	N
<i>Daucus pusillus</i>	American wild carrot	Apiaceae	Y
<i>Dipsacus fullonum</i>	teasel	Dipsacaceae	I
<i>Epilobium brachycarpum</i>	annual fireweed	Onagraceae	Y
<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	willowherb	Onagraceae	Y
<i>Epilobium densiflorum</i>	willow herb	Onagraceae	Y
<i>Epipactis gigantea</i>	stream orchid	Orchidaceae	Y
<i>Erigeron canadensis</i>	Canada horseweed	Asteraceae	Y
<i>Eriogonum latifolium</i>	coast buckwheat	Polygonaceae	Y
<i>Erodium cicutarium</i>	coast heron's bill	Geraniaceae	I
<i>Erodium moschatum</i>	white stem filaree	Geraniaceae	N
<i>Eschscholzia californica</i>	California poppy	Papaveraceae	Y
<i>Euphorbia oblongata</i>	eggleaf spurge	Euphorbiaceae	N
<i>Euphorbia peplus</i>	petty spurge	Euphorbiaceae	N
<i>Foeniculum vulgare</i>	fennel	Apiaceae	I
<i>Fragaria chiloensis</i>	beach strawberry	Rosaceae	Y
<i>Fumaria officinalis</i>	fumitory	Papaveraceae	N
<i>Galium aparine</i>	cleaver plant	Rubiaceae	Y
<i>Galium parisiense</i>	wall bedstraw	Rubiaceae	N
<i>Gamochaeta ustulata</i>	featherweed	Asteraceae	Y
<i>Geranium dissectum</i>	cutleaf geranium	Geraniaceae	I
<i>Geranium molle</i>	cranes bill geranium	Geraniaceae	N
<i>Geranium robertianum</i>	Robert's geranium	Geraniaceae	N
<i>Grindelia stricta</i> var. <i>stricta</i>	coastal gumplant	Asteraceae	Y
<i>Helminthotheca echioides</i>	bristly ox-tongue	Asteraceae	I
<i>Hirschfeldia incana</i>	hoary mustard	Brassicaceae	I
<i>Hyacinthoides non-scripta</i>	blue bells	Asparagaceae	N
<i>Hypericum perforatum</i> ssp. <i>perforatum</i>	Klamathweed	Hypericaceae	I
<i>Hypochaeris glabra</i>	smooth cat's ear	Asteraceae	I
<i>Hypochaeris radicata</i>	hairy cat's-ear	Asteraceae	I
<i>Jaumea carnosa</i>	marsh jaumea	Asteraceae	Y
<i>Lamium purpureum</i>	purple dead nettle	Lamiaceae	N
<i>Lapsana communis</i>	common nipplewort	Asteraceae	N
<i>Lathyrus latifolius</i>	sweet pea	Fabaceae	N
<i>Lathyrus littoralis</i>	beach pea	Fabaceae	Y
<i>Lemna minor</i>	smaller duckweed	Araceae	Y



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Scientific Name	Common Name	Family	Native?
<i>Leontodon saxatilis</i>	hawkbit	Asteraceae	N
<i>Lepidium didymum</i>	lesser swinecress	Brassicaceae	N
<i>Leucanthemum vulgare</i>	oxeye daisy	Asteraceae	I
<i>Limonium californicum</i>	marsh rosemary	Plumbaginaceae	Y
<i>Linum bienne</i>	flax	Linaceae	N
<i>Lobularia maritima</i>	sweet alyssum	Brassicaceae	I
<i>Lotus corniculatus</i>	bird's foot trefoil	Fabaceae	N
<i>Lupinus bicolor</i>	annual lupine	Fabaceae	Y
<i>Lupinus rivularis</i>	riverbank lupine	Fabaceae	Y
<i>Lysimachia arvensis</i>	scarlet pimpernel	Myrsinaceae	N
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	Lythraceae	I
<i>Malva nicaeensis</i>	bull mallow	Malvaceae	N
<i>Malva parviflora</i>	cheeseweed mallow	Malvaceae	N
<i>Malva pseudolavatera</i>	Cretan mallow	Malvaceae	N
<i>Matricaria discoidea</i>	pineapple weed	Asteraceae	Y
<i>Medicago polymorpha</i>	bur clover	Fabaceae	I
<i>Melilotus albus</i>	white sweet clover	Fabaceae	N
<i>Melilotus indicus</i>	annual yellow sweetclover	Fabaceae	N
<i>Mentha pulegium</i>	pennyroyal	Lamiaceae	I
<i>Modiola caroliniana</i>	Carolina bristle mallow	Malvaceae	N
<i>Myosotis discolor</i>	forget-me-not	Boraginaceae	N
<i>Nasturtium officinale</i>	watercress	Brassicaceae	Y
<i>Navarretia squarrosa</i>	skunkweed	Polemoniaceae	Y
<i>Nuttallanthus canadensis</i>	toad flax	Scrophulariaceae	Y
<i>Oenanthe sarmentosa</i>	water parsley	Apiaceae	Y
<i>Oenothera glazioviana</i>	red sepal primrose	Onagraceae	N
<i>Oxalis corniculata</i>	creeping woodsorrel	Oxalidaceae	N
<i>Oxalis pes-caprae</i>	Bermuda buttercup	Oxalidaceae	I
<i>Oxalis purpurea</i>	purple wood sorrel	Oxalidaceae	N
<i>Parentucellia viscosa</i>	yellow glandweed	Orobanchaceae	I
<i>Persicaria hydropiper</i>	common smartweed	Polygonaceae	N
<i>Petrorhagia dubia</i>	windmill pink	Caryophyllaceae	N
<i>Piperia elegans</i> ssp. <i>elegans</i>	elegant piperia	Orchidaceae	Y
<i>Plantago coronopus</i>	buckhorn plantain	Plantaginaceae	N
<i>Plantago elongata</i>	coastal plantain	Plantaginaceae	Y
<i>Plantago erecta</i>	California plantain	Plantaginaceae	Y
<i>Plantago lanceolata</i>	English plantain	Plantaginaceae	I
<i>Plantago major</i>	common plantain	Plantaginaceae	N
<i>Plantago maritima</i>	maritime plantain	Plantaginaceae	Y
<i>Platystemon californicus</i>	cream cups	Papaveraceae	Y
<i>Plectritis congesta</i> ssp. <i>congesta</i>	sea blush	Valerianaceae	Y
<i>Polycarpon tetraphyllum</i> var. <i>tetraphyllum</i>	four leaf allseed	Caryophyllaceae	N
<i>Polygonum aviculare</i> ssp. <i>aviculare</i>	prostrate knotweed	Polygonaceae	N
<i>Polygonum paronychia</i>	dune knotweed	Polygonaceae	Y
<i>Potentilla anserina</i> ssp. <i>pacifica</i>	silverweed	Rosaceae	Y
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	Asteraceae	N



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Scientific Name	Common Name	Family	Native?
<i>Ranunculus muricatus</i>	buttercup	Ranunculaceae	N
<i>Ranunculus repens</i>	creeping buttercup	Ranunculaceae	I
<i>Raphanus sativus</i>	wild radish	Brassicaceae	I
<i>Rumex acetosella</i>	sheep sorrel	Polygonaceae	I
<i>Rumex conglomeratus</i>	clustered dock	Polygonaceae	N
<i>Rumex crispus</i>	curly dock	Polygonaceae	I
<i>Rumex salicifolius</i>	willow dock	Polygonaceae	Y
<i>Sagina apetala</i>	dwarf pearlwort	Caryophyllaceae	N
<i>Sagina decumbens</i>	western pearlwort	Caryophyllaceae	Y
<i>Sagina procumbens</i>	pearlwort	Caryophyllaceae	Y
<i>Salicornia depressa</i>	pickleweed	Chenopodiaceae	Y
<i>Salicornia pacifica</i>	pickleweed	Chenopodiaceae	Y
<i>Sanicula crassicaulis</i>	Pacific sanicle	Apiaceae	Y
<i>Scrophularia californica</i>	bee plant	Scrophulariaceae	Y
<i>Sedum album</i>	white stonecrop	Crassulaceae	N
<i>Senecio glomeratus</i>	cutleaf burnweed	Asteraceae	I
<i>Senecio minimus</i>	coast burnweed	Asteraceae	N
<i>Senecio vulgaris</i>	common groundsel	Asteraceae	N
<i>Silene gallica</i>	common catchfly	Caryophyllaceae	N
<i>Silybum marianum</i>	blessed milk thistle	Asteraceae	Y
<i>Solanum americanum</i>	common nightshade	Solanaceae	Y
<i>Solanum aviculare</i>	New Zealand nightshade	Solanaceae	I
<i>Solidago spathulata</i>	dune goldenrod	Asteraceae	Y
<i>Sonchus asper</i>	prickly sow thistle	Asteraceae	N
<i>Sonchus oleraceus</i>	sow thistle	Asteraceae	N
<i>Sparaxis tricolor</i>	wandflower	Iridaceae	N
<i>Spergula arvensis</i>	corn spurry	Caryophyllaceae	N
<i>Spergula marina</i>	saltmarsh sand spurry	Caryophyllaceae	Y
<i>Spergularia rubra</i>	pink sand-spurry	Caryophyllaceae	N
<i>Spiranthes romanzoffiana</i>	hooded ladies tresses	Orchidaceae	Y
<i>Stachys arvensis</i>	field hedgenettle	Lamiaceae	N
<i>Stachys rigida</i> var. <i>rigida</i>	rough hedge nettle	Lamiaceae	Y
<i>Symphyotrichum chilense</i>	pacific aster	Asteraceae	Y
<i>Tanacetum bipinnatum</i>	dune tansy	Asteraceae	Y
<i>Tanacetum parthenium</i>	feverfew	Asteraceae	N
<i>Taraxacum officinale</i> ssp. <i>officinale</i>	dandelion	Asteraceae	N
<i>Trifolium arvense</i>	rabbit foot clover	Fabaceae	N
<i>Trifolium dubium</i>	shamrock clover	Fabaceae	N
<i>Trifolium fragiferum</i>	strawberry clover	Fabaceae	N
<i>Trifolium glomeratum</i>	clustered clover	Fabaceae	N
<i>Trifolium repens</i>	white clover	Fabaceae	N
<i>Trifolium subterraneum</i>	subterranean clover	Fabaceae	N
<i>Triglochin maritima</i>	seaside arrow grass	Juncaginaceae	Y
<i>Triphysaria eriantha</i> ssp. <i>eriantha</i>	butter n' eggs	Orobanchaceae	Y
<i>Tropaeolum majus</i>	garden nasturtium	Tropaeolaceae	N
<i>Typha latifolia</i>	cattail	Typhaceae	Y



Table 2
Botanical Species Observed 4/28/2020, 6/4/2020, and 4/5-4/8, 4/13-4/19, 5/3-5/6/2022, and 7/7/2022
RMMT Biological Assessment, Samoa, CA

Scientific Name	Common Name	Family	Native?
<i>Verbascum blattaria</i>	moth mullein	Scrophulariaceae	N
<i>Veronica arvensis</i>	speedwell	Plantaginaceae	N
<i>Vicia hirsuta</i>	hairy vetch	Fabaceae	N
<i>Vicia sativa</i> ssp. <i>sativa</i>	spring vetch	Fabaceae	N
<i>Vicia villosa</i> ssp. <i>villosa</i>	hairy vetch	Fabaceae	N
<i>Vinca major</i>	large vinca	Apocynaceae	I
<i>Zantedeschia aethiopica</i>	calla lily	Araceae	I
<i>Zeltnera muehlenbergii</i>	Muhlenberg's centaury	Gentianaceae	Y
<i>Zostera marina</i>	eelgrass	Zosteraceae	Y
Vines			
<i>Hedera helix</i>	English ivy	Araliaceae	I
<i>Lonicera hispidula</i>	pink honeysuckle	Caprifoliaceae	Y
<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	Y
Lichens, Bryophytes, Fungi			
<i>Alsia californica</i>	California alsia	Leucodontaceae	Y
<i>Anthocerotophyta</i> sp.	hornwort species	Anthocerotophyta	Y?
<i>Antitrichia californica</i>	California antitrichia moss	Leucodontaceae	Y
<i>Armellea mellea</i>	honey fungus	Physalacriaceae	Y
<i>Bryum argenteum</i>	silver bryum	Bryaceae	Y
<i>Ceratodon purpureus</i>	purple shank moss	Ditrichaceae	Y
<i>Cetraria chlorophylla</i>	foliose lichen	Parmeliaceae	Y
<i>Cladonia cariosa</i>	split peg lichen	Cladoniaceae	Y
<i>Cladonia chlorophaea</i>	mealy pixie cup lichen	Cladoniaceae	Y
<i>Cladonia concinna</i>	slender ladder lichen	Cladoniaceae	Y
<i>Cladonia coniocraea</i>	powderhorn lichen	Cladoniaceae	Y
<i>Cladonia portentosa</i>	coastal reindeer lichen	Cladoniaceae	Y
<i>Cladonia verruculosa</i>	warty reindeer lichen	Cladoniaceae	Y
<i>Frullania nisquallensis</i>	millipede liverwort	Frulaniaceae	Y
<i>Gemmabryum caespiticum</i>	gemmabryum moss	Bryaceae	Y
<i>Homalothecium arenarium</i>	golden curl moss	Brachytheciaceae	Y
<i>Hypogymnia heterophylla</i>	tube lichen	Parmeliaceae	Y
<i>Isothecium cristatum</i>	cristate moss	Lembophyllaceae	Y
<i>Kindbergia praelonga</i>	common feather moss	Brachytheciaceae	Y
<i>Orthotrichum consimile</i>	orthotrichum moss	Orthotrichaceae	Y
<i>Parmotrema perlatum</i>	black stoneflower	Parmeliaceae	Y
<i>Physconia perisidiosa</i>	appressed foliose lichen	Phyciaceae	Y
<i>Polytrichum commune</i>	common haircap moss	Polytrichaceae	Y
<i>Porella navicularis</i>	tree ruffle liverwort	Porellaceae	Y
<i>Ramalina menziesii</i>	lace lichen	Ramalinaceae	Y
<i>Tortula muralis</i>	sidewalk moss	Pottiaceae	Y
<i>Usnea cornuta</i>	beard lichen	Parmeliaceae	Y
346 Species			51% Native
1: Invasive species			
2: Native species			
3: Non-native species			

