
BOTANICAL SURVEY REPORT

APN: 214-142-012

PHILLIPSVILLE, HUMBOLDT COUNTY, CA

AUGUST 2ND 2021

Prepared For:

P2P

1271 Evergreen Road #927
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SPECIAL STATUS NATIVE PLANT POPULATIONS AND NATURAL COMMUNITIES SURVEY REPORT

SUMMARY INFORMATION

Legal description:	Portions of sections 25 and 26 of T3S, R3E H.B.&M.
APN:	214-142-012
USGS 7.5' Quad:	Miranda (4012327)
Project size:	20 acres
Dates of survey:	April 4, 2021 & June 13, 2021
Surveyed by:	Michael Weldon
Field survey effort:	7 hours
Results:	<u>No CRPR 1 or 2 plants were observed</u>

1. Introduction

This botanical survey report summarizes the results of a survey conducted on a project area located along Wood Ranch Road, Phillippsville, California (APN 214-142-012). The survey was performed to identify special status plants and sensitive plant communities that could be impacted by cannabis cultivation operations in accordance with the California Environmental Quality Act (CEQA) using the California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

2. Definitions

Special Status Plants

Special status plants include taxa that are listed under the Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) in addition to plants which meet the definition of rare or endangered under the California Environmental Quality Act (CEQA). This includes plants with California Rare Plant Ranks (CRPR) 1A, 1B, 2A, 2B or other species that warrant consideration based on local or biological significance.

Special Status Plant Communities

Special status plant communities are communities with limited distribution that may be vulnerable to environmental impacts. The global (G) and state (S) rarity rankings for currently recognized vegetation alliances are provided on the CDFW *Natural Communities List* (CDFW 2020). The list is based on the vegetation

classification in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al, 2009). Natural communities with S ranks of 3 or lower are considered of special concern. However, they may not warrant protection under CEQA unless they are considered high quality. Human disturbance, invasive species, logging and grazing are common factors considered when judging whether the stand is high quality and warrants protection.

3. Environmental Setting

Project Location

The project area is located on the Miranda USGS 7.5' quadrangle, sections 25 and 26 of T3S, R3E, H.B.&M.

Soil, Topography, and Hydrology

Data from *Web Soil Survey* for the survey area do not indicate any unique soil types that would provide habitat for rare plants such as serpentinite or peat.

The survey area is situated south of Hooker Creek, approximately 6 miles north of the town of Redway. It is located in the Rocky Glen Creek watershed (1111.320805) which drains into Eel River.

The project area is on a mild slope with a northeastern aspect ranging from ~ 600 to ~970 feet in elevation.

4. Survey Methodology

Scoping

The *California Natural Diversity Database* (CDFW 2021) and the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2021) website applications were used to generate a list of special status plants that could potentially occur within the project area. The scoping list was refined to omit species for which suitable habitat does not exist in the project area to allow surveyors to focus on species with higher potential to be located during surveys. This list includes CRPR 1 and 2 plants that have been observed within a 9-quad search centered on the Honeydew quadrangle. USGS quadrangles within the 9-quad search areas include: Weott, Myers Flat, Blocksburg, Ettersburg, Miranda, Fort Seward, Briceland, Garberville and Harris. The results of the project scoping are presented below in Table 1. The list may also include plants that are known to occur in this region and for which similar habitat exists within the project area.

Reference Populations

Reference populations were used to determine the timing of seasonally appropriate surveys. When access to suitable reference populations was unavailable, iNaturalist observations were used. The following reference populations of rare plants were used for this project:

- *Montia howellii* located approximately 40 miles north of the project area was observed in bloom on April 7, 2021.
- *Sidalcea malviflora ssp. patula* located 24 miles northwest of the project area was observed in bloom on June 7, 2021.

- *Gilia capitata ssp. pacifica* located approximately 18 miles west of the project area was observed in bloom on May 19, 2021.

Factors Affecting Accuracy of Surveys

The likelihood of false negative survey results is low, but may still be possible for a number of reasons:

- Drought conditions exist and may have precluded some sensitive plants from blooming or shortened their bloom period.
- The bloom periods of the reference populations might not accurately represent the bloom periods of target plants within the survey area due to differences in elevation or proximity to the coast, etc. There are likely other reference populations that would more accurately predict the bloom period of target rare plants within the survey area, but those reference populations were not publicly accessible.
- Grazing by herbivores could remove the identifiable portions of the plants before they are located. The property has no livestock in the project area but there is ample habitat for deer within the survey area.

Survey

The botanical surveys were conducted by Michael Weldon, B.S. in Botany, Humboldt State University. In addition to his educational experience at HSU where he was trained in field identification of native plant species, Mr. Weldon has been performing botanical surveys for James L. Able Forestry Consultants, Inc. for three years and has an additional three years of experience conducting botanical field work for the National Park Service and Forest Service, including Redwood National Park, Six Rivers National Forest and the North Coast and Cascades Network Exotic Plant Management Team. Mr. Weldon also completed a California Native Plant Society workshop on *Carex* identification in March of 2019 and is a member of the CNPS.

Surveys were floristic in nature and conducted in a manner consistent with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Per the protocols, surveys were conducted by a qualified botanist with an average survey rate of no more than 10 acres per hour.

Botanical surveys were conducted throughout the areas proposed for cannabis cultivation and the associated road system. Surveys were conducted in an intuitive meander focused on areas likely to provide habitat for rare plant species and/or potentially affected (directly or indirectly) by cultivation operations. These areas include but are not limited to: existing permanent and seasonal roads, new road construction, road points and crossings, forest openings (i.e. meadows, landings, and cut banks), springs and watercourses.

Plants were identified to the lowest taxonomic level necessary to ensure that they were not a species of concern. If a species could not be identified on site, it was keyed using the references cited at the end of this report. Refer to Figure 1 for the survey routes.

5. Survey Results

Special Status Plants: No CRPR 1 or 2 plants were encountered in the project area. A list of all plants observed during the surveys is provided in Table 2.

Special Status Plant Communities: The project area habitat is typical of valley and foothill grasslands (VFGRs) and coastal prairie (CoPrr) within the Northern Coast Ranges (NCoR). See figures 2 and 3 for examples of habitat within the project area. The surrounding area on the parcel outside of the project area is consistent with North Coast coniferous forest (NCFrs), with canopy dominated by Douglas fir (*Pseudotsuga menziesii*). Some native grasses are present, including *Elymus glaucus* and *Danthonia californica*, but no sensitive natural grass communities could be established during surveys due to the large amount of invasive grasses present, consistent with historic grazing.

Mitigation Recommendations: No mitigations are recommended for any natural communities located within the project area. Because of the low quality of the habitat within the project area due to historic grazing, preexisting land disturbance (i.e. motocross track), and associated invasive species, the cultivation operations are unlikely to harm any special status plants or sensitive natural plant communities.

6. References

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Table 1: Rare Plant Scoping List

USGS 7.5' Quads: Weott (4012338), Myers Flat (4012337), Blocksburg (4012336), Ettersburg (4012328), Miranda (4012327), Fort Seward (4012326), Briceland (4012318), Garberville (4012317), Harris (4012316)						Blooming Period									
Scientific Name	Common Name	CRPR/ CESA/FESA	Elevation (meters)	General Habitats	General Microhabitats	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
<i>Astragalus agnicidus</i>	Humboldt County milk-vetch	1B.1	120-800	BUFrS, NCFrS	Openings, disturbed areas, sometimes roadsides										
<i>Carex arcta</i>	Northern clustered sedge	2B.2	60-1400	BgFn, NCFrS (mesic)											
<i>Erythronium oregonum</i>	Giant fawn lily	2B.2	100-1150	CMWld, Mdws	Sometimes serpentinite, rocky openings					(Jul)					
<i>Erythronium revolutum</i>	Coast fawn lily	2B.2	0-1600	BgFn, BUFrS, NCFrS	Mesic, streambanks						(Aug)				
<i>Gilia capitata ssp. pacifica</i>	Pacific gilia	1B.2	5-1665	CBSCr, Chpl (openings), CoPrr, VFGrS											
<i>Kopsiopsis hookeri</i>	Small groundcone	2B.3	90-885	NCFrS											
<i>Montia howellii</i>	Howell's montia	2B.2	0-835	Mdws, NCFrS, VrPl	Vernally mesic, sometimes roadsides		(Feb)								
<i>Navarretia leucocephala ssp. Bakeri</i>	Baker's navarretia	1B.1	5-1740	CMWld, LMFrS, Mdws, VFGrS, VrPl	Mesic										
<i>Packera bolanderi var. bolanderi</i>	Seacoast ragwort	2B.2	30-650	CoScR, NCFrS					(Jan-Apr)		(Aug)				
<i>Piperia candida</i>	White-flowered rein orchid	1B.2	30-1310	BUFrS, LMFrS, NCFrS											

Table 1 (cont'd): Rare Plant Scoping List

USGS 7.5' Quads: Weott (4012338), Myers Flat (4012337), Blocksburg (4012336), Ettersburg (4012328), Miranda (4012327), Fort Seward (4012326), Briceland (4012318), Garberville (4012317), Harris (4012316)						Blooming Period								
Scientific Name	Common Name	CRPR/ CESA/FESA	Elevation (meters)	General Habitats	General Microhabitats	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
<i>Pleuropogon hooverianus</i>	North Coast semaphore grass	1B.1	10-671	BUFRs, Mdws, NCFrs	Open areas, mesic									
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	1B.2	15-1230	CBScr, CoPrr, NCFrs										
<i>Tracyina rostrata</i>	Beaked tracyina	1B.2	90-1270	Chpl, CMWld, VFGrs										
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	2B.3	215-1400	Chpl, CMWld, LMFrs										
<p><i>Key To Habitats:</i> BgFn=Bogs Fens, BUFRs= Broad-Leaved Upland Forest, CBScr=Coastal Bluff Scrub, CCFrs=Closed Cone Coniferous Forest, Chpl=Chaparral, CmWld= Cismontane Woodland, CoDu=Coastal Dunes, CoPrr=Coastal Prairie, CoScr= Coastal Scrub, LCFrs= Lower Montane Coniferous Forest, Mdws= Meadows, MshSw= Marsh, Swamp, NCFrs= North Coast Coniferous Forest, RpScr=Riparian Scrub, RpFr= Riparian Forest, UCFrs= Upper Montane Coniferous Forest, VFGrs=Valley Foothill Grassland, VrPl=Vernal Pools. Note: Grey shading denotes months in which species are likely to be blooming and readily identifiable.</p>														

Table 2: List of plant species encountered during surveys.

Tree Species:

Species	Common Name	Special Status
<i>Acer macrophyllum</i>	Bigleaf maple	Native
<i>Aesculus californica</i>	California buckeye	Native
<i>Arbutus menziesii</i>	Pacific madrone	Native
<i>Notholithocarpus densiflorus</i>	Tanoak	Native
<i>Pseudotsuga menziesii</i>	Douglas fir	Native
<i>Quercus chrysolepis</i>	Canyon live oak	Native
<i>Quercus garryana</i>	Oregon white oak	Native
<i>Quercus kelloggii</i>	California black oak	Native
<i>Umbellularia californica</i>	Pepperwood	Native

Brush species:

Species	Common Name	Special Status
<i>Arctostaphylos columbiana</i>	Redwood manzanita	Native
<i>Baccharis pilularis</i>	Coyote brush	Native
<i>Ceanothus incanus</i>	Whitethorn	Native
<i>Ceanothus thyrsiflorus</i>	Blue blossom	Native
<i>Cytisus scoparius</i>	Scotch broom	CAL-IPC: High
<i>Holodiscus discolor</i>	Ocean spray	Native
<i>Lonicera hispidula</i>	Pink honeysuckle	Native
<i>Ribes roezlii</i>	Sierra gooseberry	Native
<i>Rosa gymnocarpa</i>	Wood rose	Native
<i>Rosa sp.</i>	Ornamental rose	Non- Native
<i>Rubus armeniacus</i>	Himalayan blackberry	CAL-IPC: High
<i>Rubus leucodermis</i>	Blackcap raspberry	Native
<i>Rubus ursinus</i>	Trailing blackberry	Native
<i>Symphoricarpos albus</i>	Snowberry	Native
<i>Toxicodendron diversilobum</i>	Poison oak	Native
<i>Vaccinium ovatum</i>	Evergreen huckleberry	Native

Herbaceous species:

Species	Common Name	Special Status
<i>Acmispon parviflorus</i>	Hill lotus	Native
<i>Adenocaulon bicolor</i>	Trail plant	Native
<i>Anisocarpus madioides</i>	Woodland madia	Native
<i>Anthemis cotula</i>	Mayweed	Non-native
<i>Aquilegia formosa</i>	Columbine	Native
<i>Calochortus tolmiea</i>	Pussy ears	Native
<i>Capsella bursa-pastoris</i>	Shepherd's purse	Non-native
<i>Cardamine californica</i>	California milkmaids	Native

<i>Cerastium glomeratum</i>	Sticky mouse-ear chickweed	Non-native
<i>Cirsium vulgare</i>	Bull thistle	CAL-IPC: Moderate
<i>Claytonia perfoliata</i>	Miner's lettuce	Native
<i>Claytonia sibirica</i>	Candyflower	Non-native
<i>Clinopodium douglasii</i>	Yerba Buena	Native
<i>Collomia heterophylla</i>	Variable-leaf collomia	Native
<i>Crepis capillaris</i>	Hawksbeard	Non-native
<i>Cynoglossum grande</i>	Hounds tongue	Native
<i>Dichelostemma ida-maia</i>	Firecracker flower	Native
<i>Digitalis purpurea</i>	Foxglove	CAL-IPC: Limited
<i>Erodium cicutarium</i>	Red stemmed filaree	CAL-IPC: Limited
<i>Erythranthe guttata</i>	Yellow monkeyflower	Native
<i>Eschscholzia californica</i>	California poppy	Native
<i>Fragaria vesca</i>	Wild strawberry	Native
<i>Galium californicum</i>	California bedstraw	Native
<i>Galium parisiense</i>	Wall bedstraw	Non-native
<i>Geranium dissectum</i>	Wild geranium	CAL-IPC: Limited
<i>Geranium mole</i>	Dovefoot geranium	Non-native
<i>Hieracium albiflorum</i>	White flowered hawkweed	Native
<i>Hypericum perforatum</i>	Klamathweed	CAL-IPC: Moderate
<i>Hypochaeris glabrata</i>	Smooth cat's ear	Cal-IPC: Limited
<i>Hypochaeris radicata</i>	Hairy cat's ear	Cal-IPC: Moderate
<i>Iris douglasiana</i>	Douglas' iris	Native
<i>Lathyrus latifolius</i>	Sweet pea	CAL-IPC: Limited
<i>Lupinus bicolor</i>	Miniature lupine	Native
<i>Lysimachia latifolia</i>	Pacific starflower	Native
<i>Madia gracilis</i>	Gumweed	Native
<i>Medicago lupulina</i>	Black medick	Non-native
<i>Mentha pulegium</i>	Pennyroyal	CAL-IPC: Moderate
<i>Navarretia squarrosa</i>	Skunkweed	Native
<i>Nemophila parviflora</i>	Small flowered nemophila	Native
<i>Osmorhiza berteroi</i>	Sweet cicely	Native
<i>Phacelia californica</i>	Rock phacelia	Native
<i>Phoradendron leucarpum</i>	American mistletoe	Native
<i>Plantago lanceolata</i>	Ribwort	CAL-IPC: Limited
<i>Plantago major</i>	Common plantain	Non-native
<i>Ranunculus occidentalis</i>	Western buttercup	Native
<i>Ranunculus repens</i>	Creeping buttercup	CAL-IPC: Limited
<i>Rumex acetosella</i>	Sheep sorrel	CAL-IPC: Moderate
<i>Rumex crispus</i>	Curly dock	CAL-IPC: Limited
<i>Sanicula crassicaulis</i>	Pacific sanicle	Native
<i>Saxifraga mertensiana</i>	Wood saxifrage	Native
<i>Silybum marianum</i>	Milk thistle	CAL-IPC: Limited
<i>Sisyrinchium bellum</i>	Blue eyed grass	Native
<i>Spergularia rubra</i>	Purple sand spurry	Non-native
<i>Stachys ajugoides</i>	Hedge nettle	Native

<i>Taraxacum officinale</i>	Red-seeded dandelion	Non-native
<i>Trifolium hirtum</i>	Rose clover	Non-native
<i>Trifolium repens</i>	White clover	Non-native
<i>Trifolium wildenovii</i>	Tomcat clover	Native
<i>Trillium ovatum</i>	Wakerobin	Native
<i>Vancouveria planipetala</i>	Inside out flower	Native
<i>Verbascum blattaria</i>	Moth mullein	Non-native
<i>Verbena lasiostachys</i>	Vervain	Native
<i>Vicia sativa</i>	Spring vetch	Non-native
<i>Vicia villosa</i>	Winter vetch	Non-native

Ferns and Allies:

Species	Common Name	Special Status
<i>Adiantum jordanii</i>	Adiantum	Native
<i>Equisetum telmateia</i>	Giant horsetail	Native
<i>Pellaea andromedifolia</i>	Coffee fern	Native
<i>Pentagramma triangularis</i>	Goldback fern	Native
<i>Polystichum munitum</i>	Western sword fern	Native
<i>Pteridium aquilinum</i>	Western brackenfern	Native
<i>Usnea longissimi</i>	Methuselah's beard	CRPR 4.2
<i>Woodwardia fimbriata</i>	Western chain fern	Native

Grasses and Graminoids:

Species	Common Name	Special Status
<i>Agrostis capillaris</i>	Colonial bent grass	Non-native
<i>Agrostis stolonifera</i>	Creeping bent	Cal-IPC: Limited
<i>Aira caryophyllea</i>	Shiver grass	Non-native
<i>Anthoxanthum odoratum</i>	Sweet vernal grass	CAL-IPC: Moderate
<i>Avena barbata</i>	Slim oat	CAL-IPC: Moderate
<i>Briza maxima</i>	Rattlesnake grass	CAL-IPC: Limited
<i>Briza minor</i>	Little quaking grass	Non-native
<i>Bromus diandrus</i>	Ripgut brome	CAL-IPC: Moderate
<i>Bromus hordeaceus</i>	Soft brome	CAL-IPC: Limited
<i>Cortaderia jubata</i>	Pampas grass	CAL-IPC: High
<i>Cynosurus echinatus</i>	Dogtail grass	CAL-IPC: Moderate
<i>Cyperus eragrostis</i>	Tall flatsedge	Native
<i>Dactylis glomerata</i>	Orchardgrass	CAL-IPC: Limited
<i>Danthonia californica</i>	California oatgrass	Native
<i>Eleocharis macrostachya</i>	Spike rush	Native

<i>Elymus glaucus</i>	Blue wildrye	Native
<i>Festuca arundinacea</i>	Tall fescue	CAL-IPC: Moderate
<i>Festuca myuros</i>	Rattail sixweeks grass	CAL-IPC: Moderate
<i>Festuca perennis</i>	Italian rye grass	CAL-IPC: Moderate
<i>Holcus lanatus</i>	Velvet grass	CAL-IPC: Moderate
<i>Hordeum murinum</i>	Barley	CAL-IPC: Moderate
<i>Hordeum vulgare</i>	Barley	Non-native
<i>Juncus patens</i>	Rush	Native
<i>Luzula comosa</i>	Hairy wood rush	Native
<i>Phalaris aquatica</i>	Harding grass	CAL-IPC: Moderate
<i>Poa annua</i>	Annual blue grass	Non-native

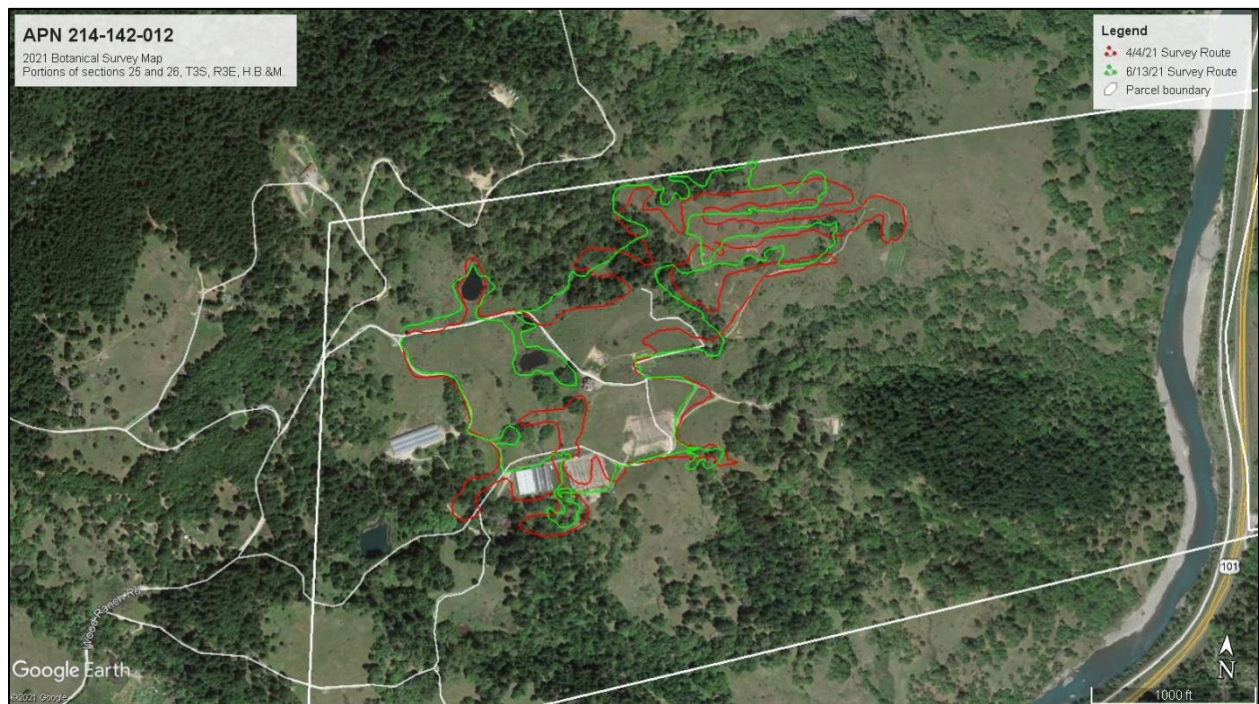


Figure 1: Map of botanical survey routes.



Figure 2: Image showing example of coastal prairie (CoPrr) habitat within project area.



Figure 3: Image showing mixed oak woodland surrounded by coastal prairie (CoPrr).