BOTANICAL SURVEY REPORT

APN: 214-142-012

PHILLIPSVILLE, HUMBOLDT COUNTY, CA

AUGUST 2ND 2021

Prepared For:

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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:	**No CRPR 1 or 2 plants were observed**

1. Introduction

This botanical survey report summarizes the results of a survey conducted on a project area located along Wood Ranch Road, Phillipsville, 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 Microbhabitats**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
Astragalus agnicidus	Humboldt County milk-vetch	1B.1	120-800	BUFrs, NCFrs	Openings, disturbed areas, sometimes roadsides									
Carex arcta	Northern clustered sedge	2B.2	60-1400	BgFn, NCFrs (mesic)										
Erythronium oregonum	Giant fawn lily	2B.2	100-1150	CMWld, Mdws	Sometimes serpentinite, rocky openings					(Jul)				
Erythronium revolutum	Coast fawn lily	2B.2	0-1600	BgFn, BUFrs, NCFrs	Mesic, streambanks						(Aug)			
Gilia capitata ssp. pacifica	Pacific gilia	1B.2	5-1665	CBScr, Chpl (openings), CoPrr, VFGrs										
Kopsiopsis hookeri	Small groundcone	2B.3	90-885	NCFrs										
Montia howellii	Howell's montia	2B.2	0-835	Mdws, NCFrs, VrPl	Vernally mesic, sometimes roadsides		(Feb)							
Navarretia leucocephala ssp. Bakeri	Baker's navarretia	1B.1	5-1740	CMWld, LMFrs, Mdws, VFGrs, VrPl	Mesic									
Packera bolanderi var. bolanderi	Seacoast ragwort	2B.2	30-650	CoScr, NCFrs					(Jan-Apr)		(Aug)			
Piperia candida	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 Microbhabitats**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
Pleuropogon hooverianus	North Coast semaphore grass	1B.1	10-671	BUFrs, Mdws, NCFrs	Open areas, mesic									
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	1B.2	15-1230	CBScr, CoPrr, NCFrs										
Tracyina rostrata	Beaked tracyina	1B.2	90-1270	Chpl, CMWld, VFGrs										
Viburnum ellipticum	Oval-leaved viburnum	2B.3	215-1400	Chpl, CMWld, LMFrs										
	Key To Habitats: 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, RpFrs= 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.													

Table 2: List of plant species encountered during surveys.

Tree Species:

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

Brush species:

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

Herbaceous species:

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

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

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

Ferns and Allies:

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

Grasses and Graminoids:

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

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

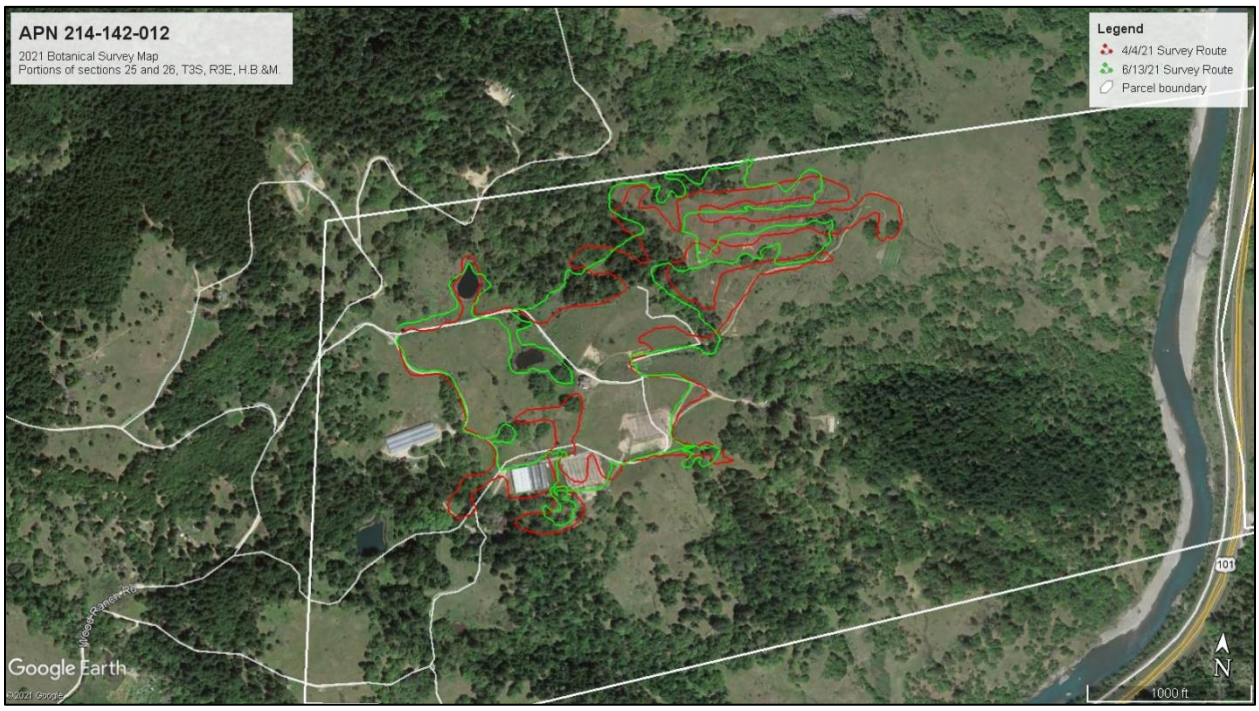

Figure 1: Map of botanical survey routes.

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).