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Botanical Survey Report
Bobillot Staton Road New Earth Farms
Cannabis Cultivation Project

Prepared by
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8/31/20

Revised
6/24/22

For
Hohman and Associates
Hydesville, CA

Signature: Caitlyn Allchin **Date:** 6/24/2022

Setting

The Bobillot Staton Road New Earth Farms Cannabis Cultivation Project is located in Section 17, Township 6 North, Range 5 East HB&M; Humboldt County, on the Willow Creek USGS 7.5' quadrangle. The project area is approximately 3.5 miles southwest of Willow Creek, and approximately 0.4 miles northeast of Four Mile Creek. The biogeographic region can be described using a three-tiered hierarchy of province, region, and sub-region. This site lies within the California Floristic Province, Northwestern California region, and North Coast sub-region. The property lies within Six Rivers National Forest. The elevation ranges from 1920 to 2040 feet. Slopes on the property are gentle to moderate, and the aspect is primarily east-facing. The vegetation is mixed coniferous forest dominated by Douglas fir (*Pseudotsuga menziesii*) (S4 G5). The property is approximately 23 acres, and the area to be cultivated is approximately 2 acres.

Methods

Caitlyn Allchin conducted the botanical surveys for Bobillot Staton Road New Earth Farms Cannabis Cultivation Project on 5/18/2020 and 7/15/2020. Caitlyn holds a B.S. in Biological Sciences with a concentration in Botany from Humboldt State University, where she is currently a graduate student. Caitlyn has taken relevant courses including plant taxonomy, lichens and bryophytes, and principles of ecology, and conducted her senior directed study on the pollination biology of *Petasites frigidus* var. *palmatus*. She has 2 years of botany experience in Northern California.

The surveys were floristic in nature and seasonally appropriate, with an initial survey conducted during the early summer to catch early blooming species and follow-up surveys during late summer for later-blooming species. Approximately 9 field hours were spent surveying the 2 acres of cultivation area, resulting in a survey rate of 0.2 acres/hour. Surveys included systematic assessment of all potential habitats in the area based on maps, aerial photos, and visible environmental features such as canopy cover, slope, soil texture, aspect, hydrologic features, and associated vegetation. This survey protocol is based on the Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018). A list of potential rare plants on CNPS lists 1 - 3 found within the 9-quad area as listed in CDFW BIOS and CNPS Inventory of Rare and Endangered Plants is available in Attachment A. Attachment B provides details on potential rare plants. Attachment C contains photos of rare plants and the habitat of the project area. Attachment D lists all plants identified from botanical surveys. Attachment E contains a locator map and an overview map of the parcel showing rare plant populations alongside botanical survey routes. Attachment F contains rare plant rank definitions.

Results

No protected rare or endangered plants (CNPS List 1 or 2) were detected at the Bobillot Staton Road New Earth Farms Cannabis Cultivation Project area. Tracy's tarplant (*Hemizonia congesta ssp. tracyi*), a CNPS 4.3, was growing along a decommissioned logging road to the north of the

cultivation area (Figure 1). *Hemizonia congesta ssp. tracyi* is characterized as having white ray flowers with no purple-vein abaxially and puberulent or bristly leaves (TJM2). The limited distribution Tracy's tarplant is unlikely to be impacted given its proximity to the cultivation area. Plants with a rank of .3 are not considered very threatened in California (<20% of occurrences threatened / low degree of immediacy of threat or no current threats known).

A population of *Erythronium* species was found in a vegetative state during the 5/18/2020 survey. This population is located to the south of the entrance to the property that is located on the southeastern side of the parcel. The population is marked with pink Native Plant Protection Flagging and is unlikely to be impacted due to its proximity to the cultivation area. There is a decommissioned logging road that runs to the northwest adjacent to the *Erythronium* population. If this road needs to be accessed, a professional botanist should be consulted to identify this population to species during its blooming period (March – July). If the population is found to be a rare or threatened species of *Erythronium*, then a 100 ft buffer should be delineated with flagging around it to ensure its protection during road use.

The project area is composed of mixed coniferous forest dominated by Douglas fir (*Pseudotsuga menziesii*) (S4 G5), with madrone (*Arbutus menziesii*), canyon live oak (*Quercus chrysolepis*), tan oak (*Notholithocarpus densiflorus*), black oak (*Quercus kelloggii*) and white oak (*Quercus garryana*) (Figure 2). There are also areas with big-leaf maple (*Acer macrophyllum*) and grey pine (*Pinus sabiniana*) on the property. The forest understory was sparsely populated with poison oak (*Toxicodendron diversilobum*) and other native plants (Figure 3). While native species made up the majority of the herbaceous layer on the property, Himalayan blackberry (*Rubus armeniacus*) was encroaching areas along the pond and grasslands (Figure 4), and the highly invasive star thistle (*Centaurea solstitialis*) was dominating the grasslands spanning approximately 0.5 acres just north of the cultivation area (Figure 5).

Mitigations

There is a high amount of invasive species on the property. A large population of star thistle (*Centaurea solstitialis*) and a moderate amount of Himalayan blackberry (*Rubus armeniacus*) were found on the property to the north of the cultivation area. According to Cal-IPC, star thistle and Himalayan blackberry are both considered to be highly invasive plants and thus should be mitigated as soon as possible. Disturbance and moving plant material during conversion operations has the potential to increase the spread of these non-native invasive plants. Removal is recommended prior to operations to minimize impacts to the native plant community.

Star thistle (*Centaurea solstitialis*) should be removed by hand and mowed every 2 to 4 weeks to eradicate the established populations (DiTomaso et al. 2013). It is best to mow when the population is just beginning to flower and by cutting all aboveground biomass from the base of the plant to inhibit resprouting (DiTomaso et al. 2013). If plants are removed after seeding has begun, plants must be bagged and removed from site (DiTomaso et al. 2013). Mowing is most effective when done in the early flowering stage and again 4 to 6 weeks later to cut regrowth when new buds are emerging, or after rainfall or germination occurs (DiTomaso et al. 2013). Tillage can be effective but is not typically recommended as it will increase erosion and can

disturb native plant communities (DiTomaso et al. 2013). Removal should take place over a period of several years to be successful (DiTomaso et al. 2013).

Himalayan blackberry (*Rubus armeniacus*) is highly invasive and readily outcompetes and displaces native species, severely limits light coming through the canopy thereby limiting the growth of native plants, as well as reduces soil moisture and creates barriers to water access for wildlife (DiTomaso et al. 2013). All canes, roots, and root crowns should be bagged and removed to prevent resprouting, and plants should be mechanically removed by manually digging them out by hand or with a device such as a Pulaski or mattock (DiTomaso et al. 2013). Cutting and removing only the aboveground biomass will stimulate new growth, so it is imperative that belowground roots and canes be removed (DiTomaso et al. 2013). Tillage and bulldozing are not recommended methods of removal as it will cause significant soil disturbance and is unsuitable in riparian areas (DiTomaso et al. 2013).

Compost piles, soil piles, and raised beds should be weeded and covered when not in use. When exposed, they are an excellent environment to support the growth and spread of non-native plant species.

The surveys were appropriately spread out over the spring and summer to identify potentially occurring rare plants. A *Piperia* sp. was located during the initial survey on 5/18/2020 and marked with flagging and GPS. The *Piperia* sp. was returned to during the 7/15/2020 survey and keyed to the flat spurred piperia (*Piperia transversa*) (Figure 6), not the rare, white-flowered rein-orchid (*Piperia candida*, CRPR 1B.2). The flat spurred piperia has a spur that is perpendicular to the stem, points straight back, and is 6 – 12 mm long. The white-flowered rein-orchid has a spur that is 1.5 – 3.5 mm long and points down or curves forward towards the lip. All potential rare plant habitats were surveyed, and false negative surveys are unlikely. No additional surveys are necessary at this time. An Invasive Species Report is recommended to remove the invasive star thistle and Himalayan blackberry on the property. Additional botanical surveys are recommended for the cultivation project in five years to keep surveys current.

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chment A: List of Potentially Occurring Sensitive Plant Species

ne	Common Name	CRPR	CESA	FESA	Blooming Period	Habita Project
ibraticus	Bald Mountain milk-vetch	None	None	2B.3	May-Aug	Potent
egona	Bensoniella	None	Rare	1B.1	May-July	Potent
nianus	Rattlesnake fern	None	None	2B.2	(Apr)Jun,Aug,Sept	Potent
	Northern clustered sedge	None	None	2B.2	Jun-Sep	Potent
i	Bristle-stalked sedge	None	None	2B.2	Mar-Jul	Potent
a	Northern meadow sedge	None	None	2B.2	May-July	Potent
ensis	Bunchberry	None	None	2B.2	May-July	Potent
ganum	Oregon fireweed	None	None	1B.2	June-Sept	Potent
rinitiensis	Pink-margined monkeyflower	None	None	1B.3	Jun-Aug	Potent
iregonum	Giant fawn lily	None	None	2B.2	Mar-July	Potent
evolutum	Coast fawn lily	None	None	2B.2	Mar-Aug	Potent
alis	Wayside aster	None	None	1B.2	Jun-Sept	Potent
ssp. pacifica	Pacific gilia	None	None	1B.2	April-August	Potent
dis	American manna grass	None	None	2B.3	Jun-Aug	Potent
acteata	California globe mallow	None	None	1B.2	June-Aug	Potent
okeri	Small groundcone	None	None	2B.3	April-Aug.	Potent
don var. howellii	Howell's lewisia	None	None	3.2	Apr-Jul	Potent
realis	Northern microseris	None	None	2B.1	Jun-Sept	Potent
lii	Howell's montia	None	None	1B.1	Feb-May	Potent
olfii	Wolf's evening-primrose	None	None	2B.2	May-Oct	Potent
la	white-flowered rein orchid	None	None	1B.2	Mar-Sept	Potent
iusta	Angel's hair lichen	None	None	2B.1	--	Potent
arpa var. serpentina	Gasquet rose	None	None	1B.3	Apr-Jun(Aug)	Potent
officinalis	Great burnet	None	None	2B.2	Jul-Oct	Potent

iflora ssp. patula	Siskiyou checkerbloom	None	None	1B.2	Apr-Aug	Potent
ana ssp. eximia	Coast checkerbloom	None	None	1B.2	Jun-Aug	Potent
busta	Robust false lupine	None	None	1B.2	May-Jul	Potent
ata var. trifoliata	Trifoliate laceflower	None	None	3.2	May-Aug	Potent
parium	Little-leaved huckleberry	None	None	2B.2	Jun-Aug	Potent

Attachment B: Potential Rare Plant Details

1. Bald mountain milk vetch (*Astragalus umbraticus*)
Status: CNPS List 2B.3: rare or endangered in California, common elsewhere; .3: not very endangered in CA. Not federally or state listed. State Rank S2: Imperiled. Global Rank G4: Apparently Secure.
Family: Fabaceae
Flowering: May - August
Habitat: sometimes roadside, cismontane woodland, lower montane coniferous forest.
Habitat in project area: potential habitat exists along roads and in forested areas.

2. Bensoniella (*Bensoniella oregona*)
Status: CNPS List 1B.1: rare or threatened in California and elsewhere; .1: seriously endangered in CA. Not federally listed. State listed as rare (CR). State Rank S2: Imperiled. Global Rank G3: Vulnerable.
Family: Saxifragaceae
Flowering: May - July
Habitat: mesic, bogs and fens, lower montane coniferous forest (openings), meadows and seeps.
Habitat in project area: potential habitat exists in mesic areas, meadows and seeps, and forested areas.

3. Rattlesnake fern (*Botrypus virginianus*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G5: Secure.
Family: Ophioglossaceae
Flowering: April - September
Habitat: streams, bogs and fens, lower montane coniferous forest (mesic), meadows and seeps, riparian forest.
Habitat in project area: potential habitat exists in mesic areas, meadows and seeps, and forested areas.

4. Northern clustered sedge (*Carex arcta*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S1: Critically Imperiled. Global Rank G5: Secure.
Family: Cyperaceae
Flowering: June - September
Habitat: bogs and fens, North Coast coniferous forest (mesic).
Habitat in project area: potential habitat exists in mesic and forested areas.

5. Bristle-stalked sedge (*Carex leptalea*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S1: Critically Imperiled. Global Rank G5: Secure.
Family: Cyperaceae
Flowering: March - July

Habitat: bogs and fens, meadows and seeps (mesic), marshes and swamps.
Habitat in project area: potential habitat exists in mesic areas of the property.

6. Northern meadow sedge (*Carex praticola*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G5: Secure.
Family: Cyperaceae
Flowering: May – July
Habitat: meadows and seeps (mesic).
Habitat in project area: potential habitat exists in mesic areas.

7. Bunchberry (*Cornus canadensis*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G5: Secure.
Family: Cornaceae
Flowering: May – July
Habitat: bogs and fens, meadows and seeps, North Coast coniferous forest.
Habitat in project area: potential habitat exists in mesic areas, meadows and seeps, and forested areas.

8. Oregon fireweed (*Epilobium oreganum*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G2: Imperiled.
Family: Onagraceae
Flowering: June - September
Habitat: mesic, bogs and fens, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.
Habitat in project area: potential habitat exists in mesic and forested areas.

9. Pink-margined monkeyflower (*Erythranthe trinitiensis*)
Status: CNPS List 1B.3: rare or endangered in California and elsewhere; .3: not very endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G2: Imperiled.
Family: Phrymaceae
Flowering: June – August
Habitat: often serpentinite, often roadsides, cismontane woodland, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.
Habitat in project area: potential habitat exists in roadsides, meadows and seeps, serpentine, and forested areas.

10. Giant fawn lily (*Erythronium oregonum*)
Status: CNPS List 2B.2: rare or endangered in California, commons elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled. Global Rank G4G5: Apparently Secure/Secure.
Family: Liliaceae

Flowering: March - July
Habitat: sometimes serpentinite, rocky, openings, cismontane woodland, meadows and seeps.
Habitat in project area: potential habitat exists in serpentine areas, rocky areas, meadows and seeps, and forest areas.

11. Coast fawn lily (*Erythronium revolutum*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S3: Vulnerable. Global Rank G4G5: Apparently Secure/Secure.
Family: Liliaceae
Flowering: March - August
Habitat: mesic, streambanks, bogs and fens, broadleafed upland forest, North Coast coniferous forest.
Habitat in project area: potential habitat exists in mesic and forested areas.

12. Wayside aster (*Eucephalus vialis*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S1: Critically Imperiled. Global Rank G3: Vulnerable.
Family: Asteraceae
Flowering: June - September
Habitat: gravelly, lower montane coniferous forest, upper montane coniferous forest.
Habitat in project area: potential habitat exists in gravelly and forested areas.

13. Pacific gilia (*Gilia capitata ssp. pacifica*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G5T3: Secure/Vulnerable.
Family: Polemoniaceae
Flowering: April - August
Habitat: coastal bluff scrub, chaparral (openings), coastal prairie, valley and foothill grassland.
Habitat in project area: potential habitat exists in grassy openings.

14. American manna grass (*Glyceria grandis*)
Status: CNPS List 2B.3: rare or endangered in California, common elsewhere; .3: not very endangered in CA. No state or federal listing. State Rank S3: Vulnerable. Global Rank G5: Secure.
Family: Poaceae
Flowering: June - August
Habitat: bogs and fens, meadows and seeps, marshes and swamps (streambanks and lake margins).
Habitat in project area: potential habitat exists in mesic areas and meadows and seeps.

15. California globe mallow (*Iliamna latibracteata*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G2G3: Imperiled/Vulnerable.

Family: Malvaceae
Flowering: June - August
Habitat: often in burned areas, chaparral (montane), lower montane coniferous forest, North Coast coniferous forest (mesic), riparian scrub (streambanks).
Habitat in project area: potential habitat exists in conifer-dominated areas and mesic areas.

16. Small groundcone (*Kopsiopsis hookeri*)
Status: CNPS List 2B.3: rare or endangered in California, common elsewhere; .3: not very endangered in CA. No federal or state listing. State Rank S1S2: Critically Imperiled/Imperiled. Global Rank G4?: Apparently Secure.
Family: Orobanchaceae
Flowering: April - August
Habitat: North Coast coniferous forest.
Habitat in project area: potential habitat exists in conifer-dominated areas.

17. Howell's lewisia (*Lewisia cotyledon var. howellii*)
Status: CNPS List 3.2: more information needed; .2: fairly endangered in CA. No State or Federal listing, State Rank S2: Imperiled. Global Rank G4T4Q: Apparently Secure.
Family: Montiaceae
Flowering: April - July
Habitat: rocky, broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest.
Habitat in project area: potential habitat exists in rocky and forested areas.

18. Northern microseris (*Microseris borealis*)
Status: CNPS List 2B.1: rare or endangered in California, common elsewhere; .1: seriously endangered in CA. No State or Federal listing, State Rank S1: Critically Imperiled, Global Rank G5: Secure.
Family: Asteraceae
Flowering: June - September
Habitat: mesic, bogs and fens, lower montane coniferous forest, meadows and seeps.
Habitat in project area: potential habitat exists in mesic and forested areas.

19. Howell's montia (*Montia howellii*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G3G4: Vulnerable/Apparently Secure.
Family: Montiaceae
Flowering: January - May
Habitat: vernally mesic, sometimes roadsides, meadows and seeps, North Coast coniferous forest, vernal pools.
Habitat in project area: potential habitat exists in vernally mesic forested areas and roadsides.

20. Wolf's evening-primrose (*Oenothera wolfii*)
Status: CNPS List 1B.1: rare or endangered in California and elsewhere; .1: seriously endangered in CA. No state or federal listing. State Rank S1: Critically Imperiled. Global Rank G2: Imperiled.
Family: Onagraceae
Flowering: May - October
Habitat: sandy, usually mesic, coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest.
Habitat in project area: potential habitat exists within the forested and mesic areas.

21. White-flowered rein orchid (*Piperia candida*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere, .2 fairly endangered in CA. No state or federal listing. State Rank S3: Vulnerable, Global Rank G3: Vulnerable.
Family: Orchidaceae
Flowering: March - September
Habitat: sometimes serpentinite, broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest.
Habitat in project area: potential habitat exists within serpentinite and forested areas.

22. Angel's hair lichen (*Ramalina thrausta*)
Status: CNPS List 2 rare, threatened, or endangered in CA, .1 seriously endangered in CA. No state or federal listing. State Rank S2: imperiled, Global Rank G5: secure.
Family: Ramalinaceae
Habitat: On dead twigs and other lichens, North coast coniferous forest.
Habitat in Project Area: Potential habitat exists within the forested area.

23. Gasquet rose (*Rosa gymnocarpa var. serpentina*)
Status: CNPS List 1B.3: rare or endangered in California and elsewhere; .3: not very endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G5T3T4: Secure/Vulnerable/Apparently Secure.
Family: Rosaceae
Flowering: April - August
Habitat: serpentinite, often roadsides, sometimes streambanks, openings, chaparral, cismontane woodland.
Habitat in project area: potential habitat exists within serpentinite areas, forested areas, openings, and roadsides.

24. Great burnet (*Sanguisorba officinalis*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G5?: Secure.
Family: Rosaceae
Flowering: July - October
Habitat: often serpentinite, bogs and fens, broadleafed upland forest, meadows and seeps, marshes and swamps, North Coast coniferous forest, riparian forest.

Habitat in project area: potential habitat exists within serpentinite areas, meadows and seeps, mesic areas, and forested areas.

25. Siskiyou checkerbloom (*Sidalcea malviflora ssp. patula*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing, State Rank S2: Imperiled, Global Rank G5T2: Secure/Imperiled.
Family: Malvaceae
Flowering: April - August
Habitat: often roadcuts, coastal bluff scrub, coastal prairie, North Coast coniferous forest.
Habitat in project area: potential habitat exists within the forested areas and along roadsides.

26. Coast checkerbloom (*Sidalcea oregana ssp. eximia*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing, State Rank S1: Critically Imperiled, Global Rank G5T1: Secure/Critically Imperiled.
Family: Malvaceae
Flowering: June - August
Habitat: lower montane coniferous forest, meadows and seeps, North Coast coniferous forest.
Habitat in project area: potential habitat exists within the forested areas, meadows, and seeps.

27. Robust false lupine (*Thermopsis robusta*)
Status: CNPS List 1B.2: rare or endangered in California and elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S2: Imperiled, Global Rank G2: Imperiled.
Family: Fabaceae
Flowering: May - July
Habitat: broadleafed upland forest, North Coast coniferous forest.
Habitat in project area: potential habitat exists within forested areas.

28. Trifoliate laceflower (*Tiarella trifoliata var. trifoliata*)
Status: CNPS List 3.2: more information needed; .2: fairly endangered in CA. No state or federal listing. State Rank S2S3: Imperiled/Vulnerable. Global Rank G5T5: Secure.
Family: Saxifragaceae
Flowering: May - August
Habitat: edges, moist shady banks, streambanks, lower montane coniferous forest, North Coast coniferous forest.
Habitat in project area: potential habitat exists within forested and mesic areas.

29. Little-leaved huckleberry (*Vaccinium scoparium*)
Status: CNPS List 2B.2: rare or endangered in California, common elsewhere; .2: fairly endangered in CA. No state or federal listing. State Rank S3: Vulnerable. Global Rank G5: Secure.
Family: Ericaceae
Flowering: June - August
Habitat: subalpine coniferous forest (rocky).
Habitat in project area: potential habitat exists within rocky forested areas.

chment C. Rare Plant & Habitat Photos

. Tracy's tarplant (*Hemizonia congesta*
, CNPS 4.3) was found growing along a
sioned logging road north of the
ı area.

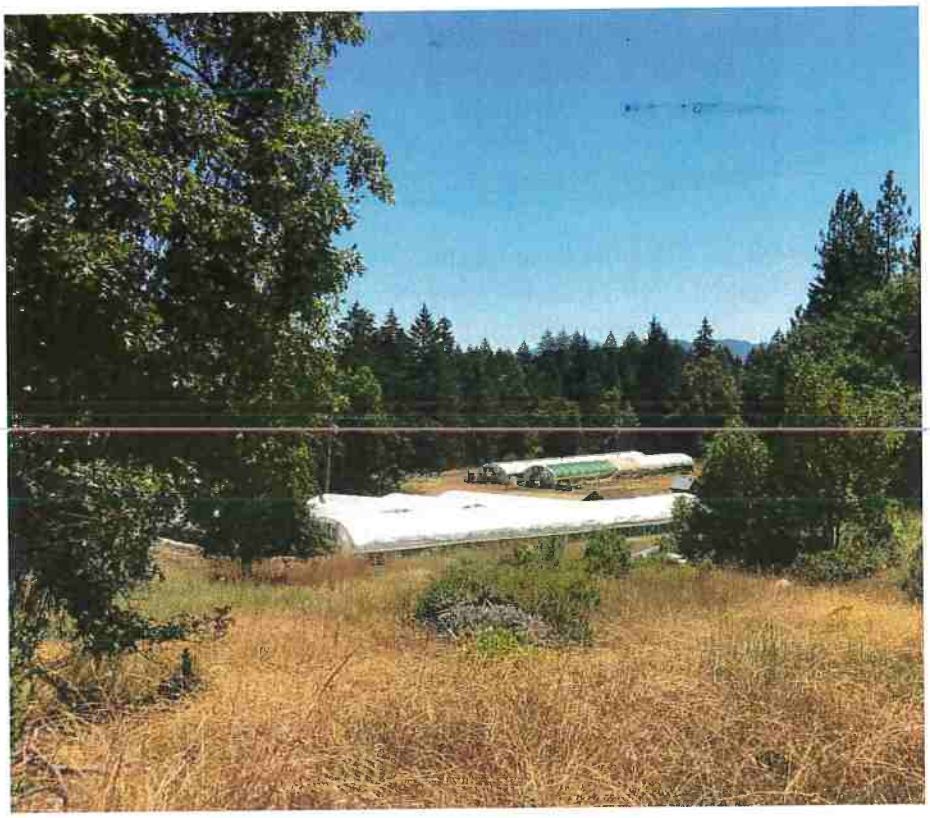

Figure 2. The project area is composed of mixed conifer
forest dominated by Douglas fir (*Pseudotsuga menziesii*) (
with madrone (*Arbutus menziesii*), canyon live oak (*Querc*
chrysolepis), tanoak (*Notholithocarpus densiflorus*), black
(*Quercus kelloggii*), and Oregon white oak (*Quercus garry*

e 3. The forest understory was sparsely populated
son oak (*Toxicodendron diversilobum*) and other
ants.

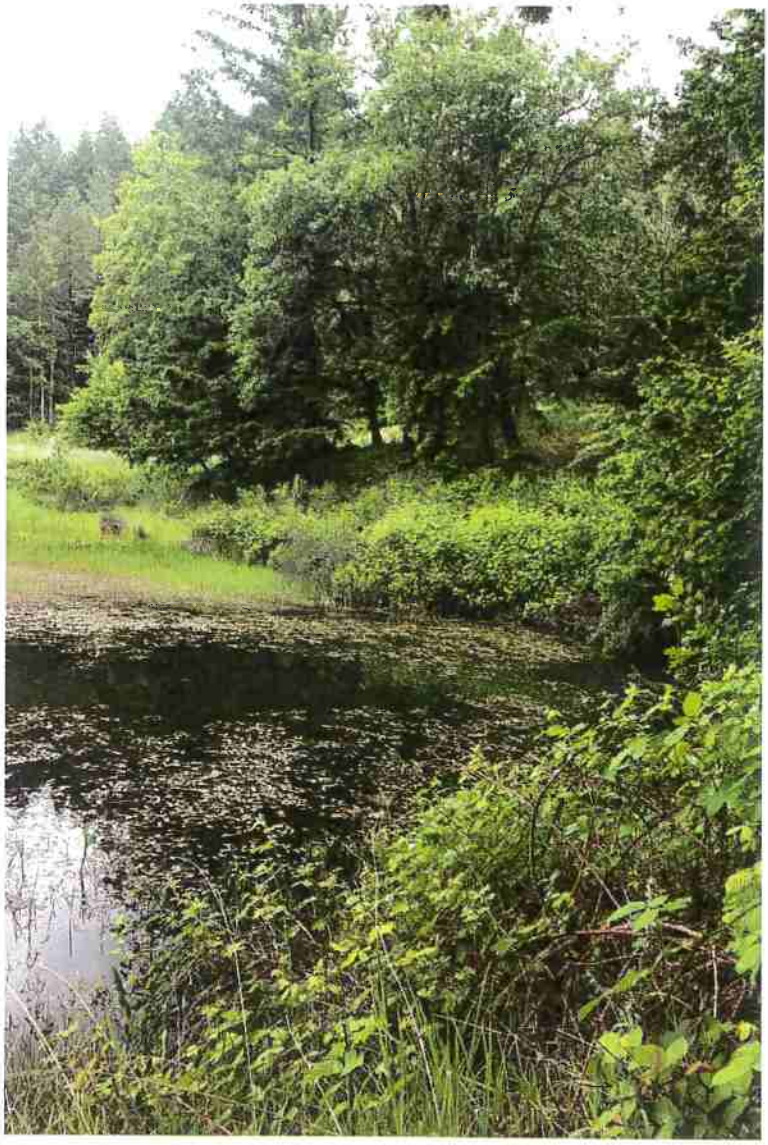

Figure 4. Himalayan blackberry (*Rubus armeniac*
dominating areas surrounding the pond and other st
north of the cannabis cultivation area.

The property had ~ 0.5 acres of star thistle (*Centaurea* dominating the grasslands north of the cultivation area on the

Figure 6. The *Piperia* sp. recorded or during the initial survey on 5/18/2020 v returned to and identified as the flat spu piperia (*Piperia transversa*) on the follo survey on 7/15/2020.

Attachment D. Plant Species Observed

Type	*Scientific Name*	Common Name	Family	Date
Trees	*Acer macrophyllum*	Bigleaf maple	Sapindaceae	5/18/2020
	Arbutus menziesii	Madrono	Ericaceae	5/18/2020
	Calocedrus decurrens	Incense cedar	Cupressaceae	5/18/2020
	Frangula purshiana	Cascara sagrada	Rhamnaceae	7/15/2020
	Juglans hindsii	Northern California black walnut	Juglandaceae	7/15/2020
	Malus sp.	Apple sp.	Rosaceae	5/18/2020
	Notholithocarpus densiflorus	Tanoak	Fagaceae	5/18/2020
	Pinus sabiniana	Bull pine	Pinaceae	5/18/2020
	Populus nigra	black poplar	Salicaceae	5/18/2020
	Pseudotsuga menziesii	Douglas fir	Pinaceae	5/18/2020
	Quercus chrysolepis	Gold cup live oak	Fagaceae	5/18/2020
	Quercus garryana	Oregon oak	Fagaceae	5/18/2020
	Quercus kelloggii	California black oak	Fagaceae	5/18/2020
	Salix babylonica	weeping willow	Salicaceae	5/18/2020
Shrubs	*Arctostaphylos manzanita*	Common manzanita	Ericaceae	5/18/2020
	Baccharis pilularis	Coyote brush	Asteraceae	5/18/2020
	Ceanothus cuneatus	Buck brush	Rhamnaceae	5/18/2020
	Ceanothus velutinus	Tobacco brush, snowbrush	Rhamnaceae	5/18/2020
	Cornus sericea	American dogwood	Cornaceae	5/18/2020
	Corylus cornuta	Beaked hazelnut	Betulaceae	5/18/2020
	Holodiscus discolor	Oceanspray	Rosaceae	5/18/2020
	Lonicera hispidula	Pink honeysuckle	Caprifoliaceae	5/18/2020
	Ribes roezlii	Sierra gooseberry	Grossulariaceae	5/18/2020
	Rosa gymnocarpa	Wood rose	Rosaceae	5/18/2020
	Rubus armeniacus	Himalayan blackberry	Rosaceae	7/15/2020
	Rubus ursinus	California blackberry	Rosaceae	5/18/2020
	Symphoricarpos albus	Common snowberry	Caprifoliaceae	5/18/2020
	Toxicodendron diversilobum	Poison oak	Anacardiaceae	5/18/2020
Herbaceous	*Achillea millefolium*	Yarrow	Asteraceae	5/18/2020
	Acmispon americanus	American bird's foot trefoil	Fabaceae	7/15/2020
	Acmispon brachycarpus	Short-podded lotus	Fabaceae	5/18/2020
	Acmispon wrangelianus	Chilean trefoil	Fabaceae	5/18/2020
	Aira caryophyllea	Silvery hairgrass	Poaceae	5/18/2020
	Allium falcifolium	Sickle leaf onion	Alliaceae	7/15/2020
	Anisocarpus madioides	Woodland madia	Asteraceae	5/18/2020

Anthoxanthum odoratum	Sweet vernal grass	Poaceae	5/18/2020
Aspidotis densa	Lace fern	Pteridaceae	5/18/2020
Avena barbata	Slim oat	Poaceae	5/18/2020
Brassica nigra	Black mustard	Brassicaceae	5/18/2020
Brodiaea elegans	Harvest brodiaea	Themidaceae	7/15/2020
Calystegia occidentalis	Bush morning glory	Convolvulaceae	7/15/2020
Capsella bursa-pastoris	Shepherd's purse	Brassicaceae	5/18/2020
Centaurea solstitialis	Yellow starthistle	Asteraceae	7/15/2020
Chaenorhinum minus	Dwarf toad flax	Plantaginaceae	5/18/2020
Chimaphila menziesii	Little prince's pine	Ericaceae	5/18/2020
Chlorogalum pomeridianum	Amole	Agavaceae	7/15/2020
Cichorium intybus	Chicory	Asteraceae	7/15/2020
Cirsium brevistylum	Indian thistle	Asteraceae	5/18/2020
Cirsium vulgare	Bullthistle	Asteraceae	5/18/2020
Claytonia perfoliata	Miner's lettuce	Montiaceae	5/18/2020
Cynoglossum grande	Houndstongue	Boraginaceae	5/18/2020
Cynosurus echinatus	Dogtail grass	Poaceae	5/18/2020
Cyperus eragrostis	Tall cyperus	Cyperaceae	5/18/2020
Dactylis glomerata	Orchardgrass	Poaceae	5/18/2020
Danthonia californica	California oatgrass	Poaceae	5/18/2020
Daucus pusillus	Wild carrot	Apiaceae	5/18/2020
Dichelostemma congestum	Fork toothed ookow	Themidaceae	5/18/2020
Epilobium foliosum	California willowherb	Onagraceae	7/15/2020
Equisetum hyemale	Scouringrush horsetail	Equisetaceae	7/15/2020
Erodium cicutarium	Coastal heron's bill	Geraniaceae	5/18/2020
Erythranthe dentata	two-leaved monkey flower	Phrymaceae	5/18/2020
Erythronium sp.	Fawn Lily	Liliaceae	5/18/2020
Eschscholzia californica	California poppy	Papaveraceae	5/18/2020
Euphorbia peplus	Petty spurge	Euphorbiaceae	5/18/2020
Festuca californica	California fescue	Poaceae	5/18/2020
Festuca perennis	Italian rye grass	Poaceae	7/15/2020
Fragaria vesca	wild strawberry	Rosaceae	5/18/2020
Galium aparine	Cleavers	Rubiaceae	5/18/2020
Galium californicum	California bedstraw	Rubiaceae	7/15/2020
Geranium dissectum	Wild geranium	Geraniaceae	5/18/2020
Hemizonia congesta ssp. tracyi 4.3	Tracy's tarplant	Asteraceae	7/15/2020
Hieracium albiflorum	White flowered hawkweed	Asteraceae	5/18/2020
Holcus lanatus	Common velvetgrass	Poaceae	7/15/2020
Hypericum perforatum	Klamathweed	Ericaceae	7/15/2020
Hypochaeris radicata	Hairy cat's ear	Asteraceae	7/15/2020
Iris purdyi	Purdy's iris	Iridaceae	5/18/2020
Juncus effusus	Common bog rush	Juncaceae	5/18/2020

Kopsiopsis strobilacea	California ground cone	Orobanchaceae	5/18/2020
Lactuca serriola	Prickly lettuce	Asteraceae	5/18/2020
Lamium purpureum	Purple dead nettle	Lamiaceae	5/18/2020
Lathyrus latifolius	Sweet pea	Fabaceae	5/18/2020
Lathyrus nevadensis	Sierra pea	Fabaceae	5/18/2020
Lepidium campestre	Field pepper grass	Brassicaceae	5/18/2020
Lithophragma affine	Common woodland star	Saxifragaceae	5/18/2020
Lomatium dasycarpum	Lace parsnip	Apiaceae	5/18/2020
Lysimachia arvensis	Scarlet pimpernel	Myrsinaceae	7/15/2020
Madia gracilis	Gumweed	Asteraceae	5/18/2020
Malva neglecta	Dwarf mallow	Malvaceae	5/18/2020
Malva nicaeensis	Bull mallow	Malvaceae	5/18/2020
Matricaria discoidea	Pineapple weed	Asteraceae	5/18/2020
Melilotus albus	White sweetclover	Fabaceae	5/18/2020
Mentha pulegium	Pennyroyal	Lamiaceae	5/18/2020
Mentha spicata	Spearmint	Lamiaceae	5/18/2020
Pedicularis densiflora	Indian warrior	Orobanchaceae	7/15/2020
Penstemon laetus	Mountain blue penstemon	Plantaginaceae	7/15/2020
Pentagramma triangularis	Gold back fern	Pteridaceae	7/15/2020
Piperia transversa	Mountain piperia	Orchidaceae	5/18/2020
Plagiobothrys nothofulvus	Rusty haired popcorn flower	Boraginaceae	5/18/2020
Plantago lanceolata	Ribwort	Plantaginaceae	7/15/2020
Polygala californica	Milkwort	Polygalaceae	7/15/2020
Polygonum aviculare	Prostrate knotweed	Polygonaceae	7/15/2020
Polystichum munitum	Western sword fern	Dryopteridaceae	7/15/2020
Primula hendersonii	Mosquito bill	Primulaceae	5/18/2020
Pteridium aquilinum	Western brackenfern	Dennstaedtiaceae	5/18/2020
Pyrola aphylla	leafless wintergreen	Ericaceae	5/18/2020
Ranunculus occidentalis	Western buttercup	Ranunculaceae	5/18/2020
Raphanus sativus	Jointed charlock	Brassicaceae	5/18/2020
Rumex acetosella	Sheep sorrel	Polygonaceae	5/18/2020
Rumex crispus	Curly dock	Polygonaceae	5/18/2020
Scoliopus bigelovii	Slink pod	Liliaceae	5/18/2020
Senecio jacobaea	Tansy ragwort	Asteraceae	5/18/2020
Senecio minimus	Coastal burnweed	Asteraceae	7/15/2020
Silene bolanderi	Bolander's silene	Caryophyllaceae	5/18/2020
Silene gallica	Common catchfly	Caryophyllaceae	5/18/2020
Sonchus asper	Spiny sowthistle	Asteraceae	5/18/2020
Sonchus oleraceus	Sow thistle	Asteraceae	5/18/2020
Stellaria media	Chickweed	Caryophyllaceae	5/18/2020
Trichostema laxum	Turpentine weed	Lamiaceae	7/15/2020
Trifolium hirtum	Rose clover	Fabaceae	5/18/2020

Trifolium repens	White clover	Fabaceae	5/18/2020
Trifolium willdenovii	Tomcat clover	Fabaceae	5/18/2020
Triteleia hyacinthina	Wild hyacinth	Themidaceae	5/18/2020
Viola ocellata	Western heart's ease	Violaceae	5/18/2020
Zeltnera muehlenbergii	Muehlenberg's centaury	Gentianaceae	7/15/2020

:hment E. Locator Map & Botanical Survey Map

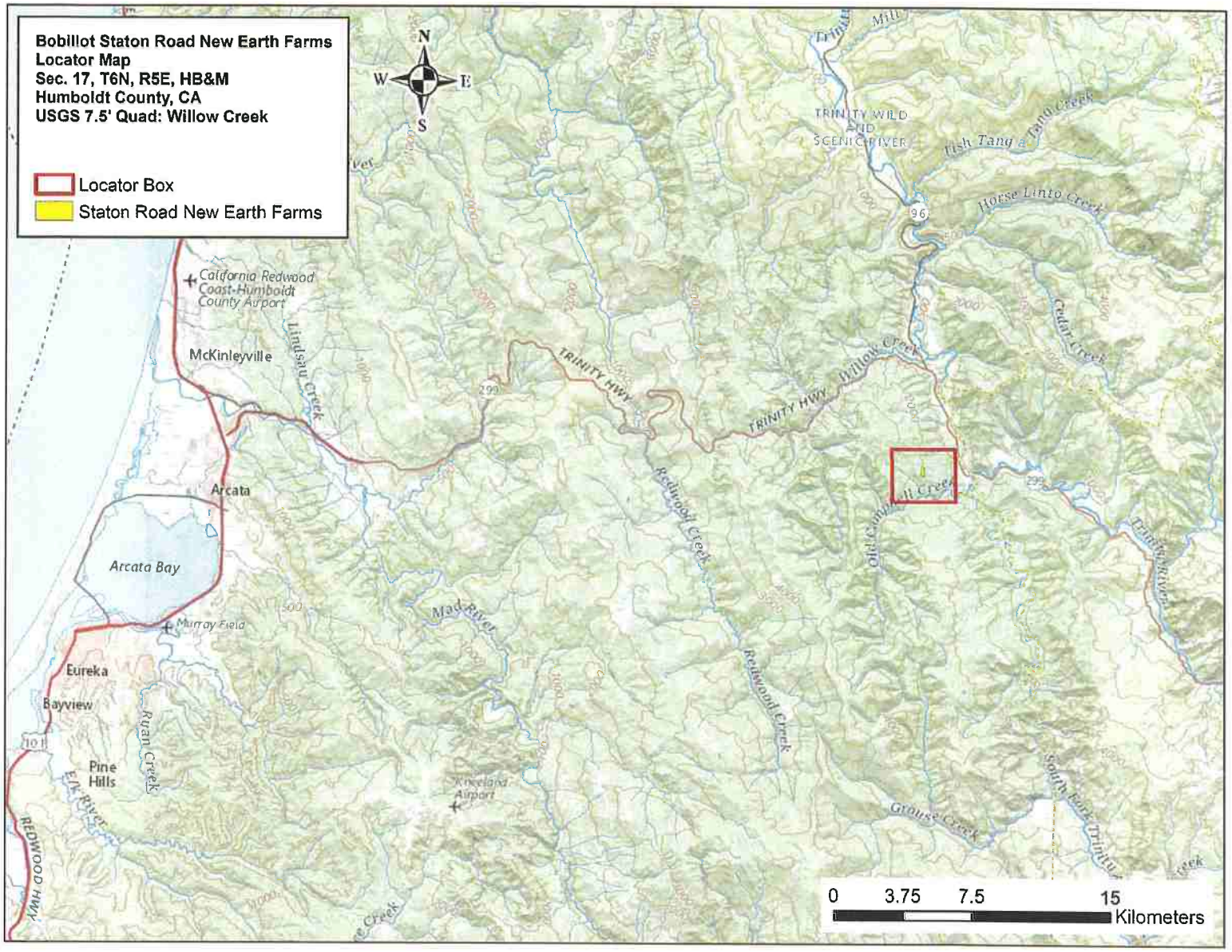

Figure I. Locator map for the Bobillot Staton Road New Earth Farms Cannabis Cultivation Project.

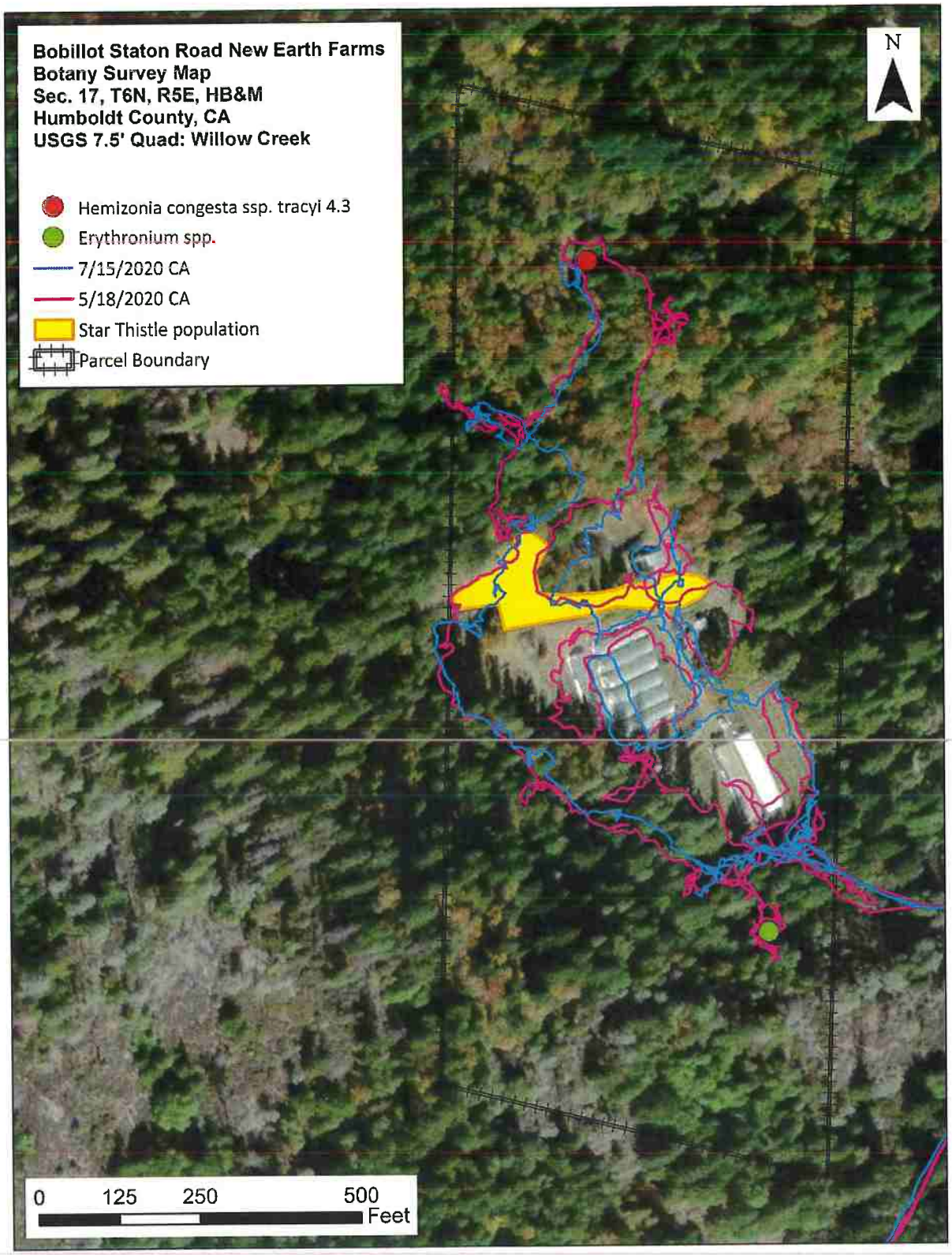

Figure II. Overview of the Bobillot Staton Road New Earth Farms Cannabis Cultivation Project site with botany survey tracks alongside rare plant populations and invasive star thistle (*Centaurea solstitialis*).

Attachment F. Rank Definitions

Global Conservation Status Definition

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

G1 **Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 **Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.

G3 **Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.

G4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 **Secure** – Common; widespread and abundant.

G#G# **Range Rank** – A numeric range range (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Infraspecific Taxon Conservation Status Ranks

T# **Infraspecific Taxon** (trimonial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon's informal taxonomic status.

Subnational (S) Conservation Status Ranks

S1 **Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.

S2 **Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.

S3 **Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 **Secure** – Common, widespread, and abundant in the jurisdiction.

S#S# **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

? **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status

Q **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The "Q" modifier is only used at a global level and not at a national or subnational level.

The California Rare Plant Ranks

1A. Presumed extirpated in California and either rare or extinct elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extirpated in California, but more common elsewhere
2B. Rare or Endangered in California, but more common elsewhere
3. Plants for which we need more information – Review list
4. Plants of limited distribution – Watch list

1A: Plants Presumed Extirpated in California and either rare or extinct elsewhere

The plants of Rank 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes those plant taxa that are both presumed extinct, as well as those plants which are presumed extirpated in California and rare elsewhere. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.

1B: Plants Rare, Threatened or Endangered in California and Elsewhere
(Includes Rare Plant Ranks 1B.1, 1B.2, 1B.3)

The plants of Rank 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. California Rare Plant Rank 1B plants constitute the majority of plant taxa tracked by the CNDDB, with more than 1,000 plants assigned to this category of rarity.

2A: Plants Presumed Extirpated in California, but more common elsewhere

The plants of Rank 2A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes only those plant taxa that are presumed extirpated in California, but that are more common elsewhere in their range. Note: Plants of both Rank 1A and 2A are presumed extirpated in California; the only difference is the status of the plants outside of the state.

2B: Plants Rare, Threatened or Endangered in California, but More Common Elsewhere
(Includes Rare Plant Ranks 2B.1, 2B.2 2B.3)

The plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. Plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act; however, they are eligible for consideration under the California Endangered Species Act. This rank is meant to highlight the importance of protecting the geographic range and genetic diversity of more widespread species by protecting those species whose ranges just extend into California. Note: Plants of both Rank 1B and 2B are rare, threatened or endangered in California; the only difference is the status of the plants outside of the state.

Threat Ranks:

The California Rare Plant Ranks (CRPR) use a decimal-style threat rank. The threat rank is an extension added onto the CRPR and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. So, most CRPRs read as 1B.1, 1B.2, 1B. 3, etc. Note that some Rank 3 plants do not have a threat code extension since there are no known extant populations of the plants in California.

Threat Code extensions and their meanings:

.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
.3 – Not very threatened in California (<20% of occurrences threatened / low degree of immediacy of threat or no current threats known)