Floristic Survey Report

APN 214-233-008

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5/8/2021

WILDLAND RESTORATION & BOTANICAL SERVICES

Location

The floristic survey area is located near the town of Miranda in Humboldt County, California and involves Humboldt County parcel (see County Parcel Map, Attachment B) #214-233-008. The property is located within the Miranda USGS 7.5' Quadrangle Section 23, Township 3 South, Range 3 East. The property is approximately 128 acres with the survey area focusing on the outdoor cannabis cultivation sites, access roads and storage location equaling 4.5 acres.

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 subregion. [Information obtained from the Humboldt County, Central Part, California (CA 600).]

Map Unit Setting

Elevation ranges from 100-3280 feet above mean sea level with a mean annual precipitation between 60 -80" with a frost-free period of 240-300 days. The property is designated nonprime farmland. A General Location map for the project area is included in Attachment D.

Description of Soil Series

The property is designated by two soil types: (573) Sproulish-Canoecreek-Redwohly 15-30% slope equaling 46.5% and (574) Sproulish-Canoecreek-Redwohly 30-50% slope equaling 53.5% of the area of interest.

Map Unit Composition

Sproulish, warm, and similar soils: 45 percent
Redwohly, warm, and similar soils: 20 percent
Canoecreek, warm, and similar soils: 20 percent
Minor components: 15 percent

Sproulish- Typical Soil Profile

Oi - 0 to 1 inches: slightly decomposed plant material
A1 - 1 to 6 inches: loam A2 - 6 to 11 inches: loam
Bt1 - 11 to 24 inches: paragravelly silty clay loam
Bt2 - 24 to 47 inches: very paragravelly clay loam
BCt - 47 to 63 inches: very paragravelly loam

Sproulish- Setting

Landform: Mountain slopes, ridges
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountaintop
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Colluvium derived from mudstone and/or colluvium derived from sandstone and/or residuum weathered from mudstone and/or residuum weathered from sandstone

Sproulish -Properties and Qualities

The depth to the restrictive layer is 27" to a strongly contrasting textural stratification. The drainage class is documented as well drained, and the water table depth is 39"-72". The flooding frequency is occasional to none, and frequency of ponding is none.

Sproulish-Interpretive Groups

Land capability classification for the site for both non-irrigated and irrigated is rated at a Class 6e indicating soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat. The subclass of ‘e' documents that the main hazard is the risk of erosion unless close-growing plant cover is maintained.

The Hydrologic Soil Group is designated as a Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Sproulish is designated as non-prime farmland.

Hydric soil rating has been documented as none present.

Redwohly -Typical Soil Profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 8 inches: paragravelly loam
Bt - 8 to 20 inches: paragravelly loam
BCt - 20 to 28 inches: paragravelly loam
C - 28 to 79 inches: paragrave

Redwohly -Setting

Landform: Ridges, mountain slopes

Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Residuum weathered from sandstone and/or residuum weathered from mudstone

Redwohly -Properties and Qualities

The depth to the restrictive layer is 80". The drainage class is documented as poorly drained, and the water table depth is 4"to 10". The flooding and ponding frequency is documented as none.

Redwohly -Interpretive Group

Land capability classification for the site for both non-irrigated and irrigated is rated at a Class 6e indicating soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat. The subclass of ‘e' documents that the main hazard is the risk of erosion unless close-growing plant cover is maintained.

The Hydrologic Soil Group is designated as a Group B: Group B Soils have a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Redwohly is designated as non-prime farmland.

Hydric soil rating has been documented as none present.

Canoecreek -Typical Soil Profile
Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 6 inches: gravelly loam AB - 6 to 19 inches: very gravelly loam
Bt1 - 19 to 31 inches: very gravelly loam
Bt2 - 31 to 41 inches: very gravelly sandy clay loam
Bt3 - 41 to 63 inches: very gravelly loam

Setting-Canoecreek
Landform: Ridges, mountain slopes
Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium and residuum derived from sandstone, mudstone, and conglomerate

Canoecreek -Properties and Qualities

The depth to the restrictive layer is 80". The drainage class is documented as poorly drained, and the water table depth is 4"to 10". The flooding and ponding frequency is documented as none.

Canoecreek -Interpretive Groups

Land capability classification for the site for both non-irrigated and irrigated is rated at a Class 6e indicating soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat. The subclass of 'e' documents that the main hazard is the risk of erosion unless close-growing plant cover is maintained.

The Hydrologic Soil Group is designated as a Group B: Group B Soils have a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Canoecreek is designated as non-prime farmland.

Hydric soil rating has been documented as none present.

Vegetation Classification

The US National Vegetation Classification System (NVC) provides a common language for the effective management and conservation of plant communities in the US.

The NVC database documents the property as a hierarchy of:
1) Class-Forest and Woodlands
2) Subclass- S15 Temperate and Boreal Forest and Woodlands
3) Formation- FO18 Warm Temperate Forest and Woodlands
4) Division- D007 Nc Californian Forest & Woodland
5) Macrogroup- M009 Califronian Forest & Woodland
6) Group – G208 Californian Moist Coastal Mixed Evergreen Forest
Alliance- AO106 *Pseudotsuga menziessi-Notholithocarpus densiflorus*

Association- CEGL000080- *Pseudotsuga menziessi/Notholithocarpus densiflorus/Vaccinum ovatum* Forest

The Ecosystem Dynamics Interpretive Tool (EDIT) is an online information system for the development and sharing of ecological site descriptions, ecosystem state and transition models, and land management knowledge. EDIT was developed to offer natural resource professionals, scientists and others a standard framework for cataloging information about how ecosystems respond to different land uses, management practices, and natural phenomena.

The ecological site for this location is a Douglas-fir, redwood/tanoak, mountain slopes, sandstones, clam loam (Ecological site F004BX102CA). The reference plant community has an overstory dominated by Douglas-fir (*Pseudotsuga menziesii*), with a moderate amount of tanoak (*Nothliithocarpus densiflorus*) in the sub-canopy. Redwood (*Sequoia sempervirens*) is not present on all sites, but it may be found in moderate amounts in a few areas. Occasional stands of Pacific madrone (*Arbutus menziesii*) may also be found. The understory is shrub-dominated, with the shrub form of tanoak providing the most cover. Salal (Gaultheria shallon) and California huckleberry (*Vaccinium ovatum*) are also present. A minor amount of western swordfern (*Polystichum munitum*) may be found on these sites.

The property is located between Bear Buttes to the west and the South Fork Eel River to the east near the town of Miranda. Review of topographic map indicates existence of watercourses but not within close proximity to cultivation locations.

Floristic Survey Methods

Fieldwork was conducted by Todd Golder, CRM # 119, and assisted by Alyssa Boyd, botany technician. The surveyors each hold a bachelor's degree in rangeland resource science from Humboldt State University. Todd Golder has over 20 years of experience working within regional natural communities. Both surveyors have extensive knowledge of regional flora including special status plants and have placed an emphasis on plant identification in their professional careers.

Research on site conditions in relation to potential habitat for special status plants was carried out prior to fieldwork. Special status plants are defined as those plants listed as threatened or endangered under the California Endangered Species Act (CESA) or the Federal Endangered Species Act (FESA), those plants with a California Rare Plant Rank (CRPR) of 1 or 2, and all other plants protected under the California Environmental Quality Act (CEQA). A further description of California Rare Plant Ranks can be found in Attachment B. An attempt to characterize the natural community of the project area was constructed based on available data including California Native Plant Society (CNPS) maps, soil survey maps, aerial imagery, and information on local landforms, topography, and drainage patterns. These site conditions were later compared to the preferred habitat conditions of special status plants with the potential to occur in the area. A shortlist of rare plants documented by the California Natural Diversity

Database (CNDDB) as present in the Miranda and surrounding quads was tabulated in Attachment A.

Field surveys were performed on 8 June 2021 for a total of 5 survey hours. Survey methods were conducted in accordance with the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations"(CADFW), in conjunction with "CNPS Botanical Survey Protocols" (CNPS). This survey therefore satisfies both California Department of Fish and Wildlife and California Native Plant Society guidelines. Attachment C includes a map indicating the routes traversed during the floristic surveys. The route was systematically selected according to any observed fluctuations in habitat including slope, drainage patterns, vegetation structure and proximity to anthropogenic disturbances. This approach aimed to gather a comprehensive species list for the area. Surveys covered the entire project area, including not only the existing cultivation and storage sites but also a buffer zone of 150 ft around each site. This step was taken in order to capture any species that could potentially be impacted by future runoff or pollution drift. Particular attention was paid to any microhabitats which were more likely to match the preferred habitat for special status plants known to occur in the area.

This survey may be used to satisfy California Environmental Quality Act (CEQA) requirements to disclose and mitigate impacts to sensitive plant populations. Mitigation is defined in CEQA Section 15370 as:

- Avoid the impact altogether by not taking a certain action
- Minimize impacts by limiting the degree or magnitude of the action
- Rectify the impact by repairing, rehabilitating, or restoring the impacted environment
- Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the project
- Compensate for the impact by replacing or providing substitute resources or environments

Should protected plants be detected in the project area, documentation shall be submitted to the California Department of Fish and Wildlife and other appropriate agencies. Furthermore, additional recommendations to mitigate impacts to sensitive plant populations will be necessary.

Results and Limitations

This report finds multiple occurrences of special status plants in the project area. Three rare species were detected at a single site with a nearly 500 m^2 area near the southern edge of the higher elevation cultivation site, as mapped in Attachment C. The following rare plants were detected: ***Sidalcea malachroides*** (Maple-leaf checkerbloom, with a California rare plant rank (CRPR) of 4.2, ***Ribes roezlii var. amictum*** (Hoary gooseberry, CRPR 4.3), and ***Lathyrus glandulosus*** (Sticky pea, CRPR 4.3). Profiles for these species including traits used in their identification are included in Attachment F. *Sidalcea malachroides* was observed in bloom, while R*ibes roezlii var. amictum* was observed in the fruiting stage. *Lathyrus glandulosus* was

neither observed flowering or fruiting, but distinctive glands on the leaves indicated a probable identification for the species. Few individuals were observed for the Ribes and Lathyrus species although an exact count was difficult due to the presence of woody debris covering a portion of the site and the rhizomatous nature of the Lathyrus. 1 individual Lathyrus and 2 individual Ribes were observed. A total of 17 individuals were documented for *Sidalcea malachroides*. Density for that species was consistent over the mapped area, except for the footprint of a slash and woody debris pile roughly 20-30 ft in diameter. Plants were absent from the footprint of the slash pile but were present just around it and throughout the grassy area outlined in Attachment C- Species of Concern Map.

The site at which all three special status plants were found could be characterized as a small meadow with seep features bordering a forested area. The site formed a transition zone from an overstory of Douglas fir, tan oak and coast live oak to an open area dominated by grasses and sedges. The meadow appeared to collect drainage from nearby upland features, evidenced by the topography, the increased soil moisture in comparison to nearby sites, and the presence of hydrophytic vegetation including *Carex sp*. and *Mentha pulegium.* Refer to Attachment G- Combined Vegetation Rapid Assessment and Releve Form for additional information.

The meadow containing the rare Sidalcea, Ribes, and Lathyrus species lay within the 150 ft buffer zone surrounding one of the active cultivation sites. This proximity indicates impacts to the sensitive species from the cultivation area are possible and steps should be taken to mitigate such impacts. After assessing the topography it was determined that the meadow lay slightly upland in comparison to the cultivation area. It is therefore less likely that pesticide or fertilizer runoff could impact the area of concern. The likeliest potential impacts would seem to be compaction: if the sensitive plant's habitat were subject to heavy foot or equipment traffic or if the area were used to store refuse from the cultivation area. It is therefore recommended at this time to **entirely avoid the area containing sensitive plants (mapped in Attachment C) by a margin of 50 ft.** All employees should be instructed to avoid this area. If any of the sensitive plants' habitat should lie within 50 ft of the cultivation area **a fence should be constructed on the border of the cultivation site to discourage any utilization of the sensitive area.** While it is possible that the slash pile which was placed in the sensitive habitat did impact rare species at one time, an attempt to remove it could result in further disturbance to the existing population. There is no recommendation to remove the debris at this time.

Competition from invasive plant species also poses a significant threat to all listed sensitive plant species. One known source of noxious weed introduction is from hay or straw brought from outside the property, which can easily harbor viable seeds. During survey hours a bale of straw brought in for erosion control was observed which did have introduced species sprouting from it. **It is recommended that the landowners purchase weed free straw or utilize a different tool for erosion control.** An additional threat which was observed within the mapped sensitive plant area was the presence of bull thistle. This invasive species is a prolific seeder which can eventually dominate an area if allowed to proliferate. Fortunately the infestation at

the site is in early stages and should require minimal intervention if managed quickly. Spraying herbicides is not recommended since special status plants may also be affected. Rather, bull thistles in the flowering stalk stage should be dug up with a shovel and safely removed before the plant seeds out. If carried out every year at the correct time it should be possible to manage the population with less than an hour of labor annually. Further monitoring and mitigation are highly recommended in order to prevent future threats to the protected plants from invasive species. The best course would be for consultants to **create an Integrated Pest Management plan for the property which could continue to manage invasive plants at the site.**

There is one potential but unconfirmed result in addition to the three positive results for protected plant species. ***Usnea longissima*** is a sensitive pendulous lichen known to occur in the region. A pendulous Usnea species was detected in the project area displaying several known characteristics of *Usnea longissima*, but also deviating from the most standard growth habit and branching pattern. Some lichens are known to be variable within their range and to present difficulty during identification. For this reason, some researchers rely on chemical analysis to positively identify species. Compared to vascular plants, far fewer text resources are available to identify lichens. A definitive positive identification on the Usnea species is pending until further resources can be gathered. Barring expansion, the current cultivation operations do not pose a significant threat to the Usnea species present on the property. The two main threats to *Usnea longissima*, and to most Usnea species, are air pollution and loss of host trees. **A positive species identification and potential additional survey should be gathered prior to any expansion of the operation that would result in the taking of host trees for the lichen.**

While no other protected plant species were detected during field hours, the potential for a false negative result still exists. Much of the natural area surrounding the cultivation site was densely shrub-covered which can impede visibility and lower the chances of observing every plant. Some plants which could occur in the area, such as *Kopsiopsis hookeri*, are masters of camouflage and are easily overlooked. Climate may also impact survey results. This survey was conducted in a drought year, which can affect the bloom time, germination and survival rates of sensitive plants, potentially leading to false negative results.

Field visits were carried out at the appropriate time of year in order to positively identify all potential special status plants likely to occur in the project area, excepting that for *Montia howellii.* This small-statured sensitive plant which often inhabits road cuts is identifiable earlier in the spring. It is, however, unlikely to be present on this property's roads and cultivation area due to a recent history of road grading. In addition, a follow up survey should attempt to observe the Lathyrus species in flower and/or fruit to confirm a positive identification. Two surveys the following year, in early spring and early summer would help to confirm both positive and negative findings for special status plants. Surveys may also be necessary in subsequent years in order to track population trends for the special status plants observed on the property. Lastly, should the landowners wish to expand the footprint of their cultivation area a further survey may be necessary in order to strengthen the validity of the negative result for other sensitive plant species.

The survey at APN #214-233-008 has yielded a positive result for special status plant species and mitigation measures are required.

We the consulting botanists hereby certify that the information provided herein is complete and accurate to the best of our abilities and that no additional floristic surveys are necessary

Signed,

Todd Golder
CRM #119

Alyssa Boyd
Botany Technician

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Attachment A

List of Potentially Occurring Sensitive Plant Species

Scientific Name	Common Name	CRPR	Global Rank	State Rank	CESA	FESA	Blooming Period	Habitat	Micro Habitat
Usnea longissima	Methuselah's beard lichen	4.2	G4	S4	None	None	N/A	Broadleafed upland forest, North Coast coniferous forest	On tree branches
Hemizonia congesta ssp. tracyi	Tracy's tarplant	4.3	G5T4	S4	None	None	May-Oct	Coastal prairie, Lower montane coniferous forest, North Coast coniferous forest	openings, sometimes serpentinite
Packera bolanderi var. bolanderi	seacoast ragwort	2B.2	G4T4	S2S3	None	None	(Jan-Apr)May-Jul(Aug)	Coastal scrub, North Coast coniferous forest	Sometimes roadsides
Epilobium septentrionale	Humboldt County fuchsia	4.3	G4	S4	None	None	Jul-Sep	Broadleafed upland forest, North Coast coniferous forest	sandy or rocky
Piperia candida	white-flowered rein orchid	1B.2	G3	S3	None	None	(Mar)May-Sep	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest	
Lathyrus glandulosus	sticky pea	4.3	G3	S3	None	None	Apr-Jun	Cismontane woodland	
Listera cordata	heart-leaved twayblade	4.2	G5	S4	None	None	Feb-Jul	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest	
Lilium rubescens	redwood lily	4.2	G3	S3	None	None	Apr-Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest	Sometimes serpentinite, sometimes roadsides
Lycopodium clavatum	running-pine	4.1	G5	S3	None	None	Jun-Aug(Sep)	Lower montane coniferous forest (mesic), Marshes and swamps, North Coast coniferous forest (mesic)	often edges, openings, and roadsides
Sidalcea malachroides	maple-leaved checkerbloom	4.2	G3	S3	None	None	(Mar)Apr-Aug	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland	Often in disturbed areas
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	1B.2	G5T2	S2	None	None	(Apr)May-Aug	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest	often roadcuts
Montia howellii	Howell's montia	2B.2	G3G4	S2	None	None	(Jan-Feb)Mar-May	Meadows and seeps, North Coast coniferous forest, Vernal pools	vernally mesic, sometimes roadsides

Scientific Name	Common Name	CRPR	Global Rank	State Rank	CESA	FESA	Blooming Period	Habitat	Micro Habitat
Astragalus agnicidus	Humboldt County milk-vetch	1B.1	G2	S2	CE	None	Apr-Sep	Broadleafed upland forest, North Coast coniferous forest	openings, disturbed areas, roadsides
Erythronium oregonum	giant fawn lily	2B.2	G4G5	S2	None	None	Mar-Jun(Jul)	Cismontane woodland, Meadows and seeps	sometimes serpentinite, rocky, openings
Gilia capitata ssp. pacifica	Pacific gilia	1B.2	G5T3	S2	None	None	Apr-Aug	Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland	
Mitellastra caulescens	leafy-stemmed mitrewort	4.2	G5	S4	None	None	(Mar)Apr-Oct	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	mesic, sometimes roadsides
Carex arcta	northern clustered sedge	2B.2	G5	S1	None	None	Jun-Sep	Bogs and fens, North Coast coniferous forest	
Lycopus uniflorus	northern bugleweed	4.3	G5	S4	None	None	Jul-Sep	Bogs and fens, Marshes and swamps	
Leptosiphon latisectus	broad-lobed leptosiphon	4.3	G4	S4	None	None	Apr-Jun	Broadleafed upland forest, Cismontane woodland	
Erythronium revolutum	coast fawn lily	2B.2	G4G5	S3	None	None	Mar-Jul(Aug)	Bogs and fens, Broadleafed upland forest, North Coast coniferous forest	Mesic, streambanks
Ribes roezlii var. amictum	hoary gooseberry	4.3	G5T4	S4	None	None	Mar-Apr	Broadleafed upland forest, Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	
Pityopus californicus	California pinefoot	4.2	G4G5	S4	None	None	(Mar-Apr)May-Aug	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest	mesic
Pleuropogon hooverianus	North Coast semaphore grass	1B.1	G2	S2	CT	None	Apr-Jun	Broadleafed upland forest, Meadows and seeps, North Coast coniferous forest	open areas, mesic
Kopsiopsis hookeri	small groundcone	2B.3	G4?	S1S2	None	None	Apr-Aug	North Coast coniferous forest	
Erigeron biolettii	streamside daisy	3	G3?	S3?	None	None	Jun-Oct	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest	rocky, mesic
Leptosiphon acicularis	bristly leptosiphon	4.2	G4?	S4?	None	None	Apr-Jul	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland	

Attachment B

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 due to difficulty in ascertaining threats for these species. Rank 1A and 2A plants also do not have threat code extensions 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 and immediacy of threat or no current threats known)

Attachment C

Soil Survey Map
County Parcel Map
General Location
Survey Route Map
Species of Concern Map Overveiw
Species of Concern Map

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

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County Parcel Map

Humboldt County Planning and Building Department

0 1,400 2,800 5,600 Feet

0 0.25 0.5 1 Miles

RF= 1:36,112 1 in = 3,009 ft

N W E S

Search Results:
Parcels (by APN)
Override 1

Highways and Roads
Principal Arterials
Minor Arterials
Major Collectors
Minor Collectors
Local Roads
Private or Unclassified
Major River or Stream

Blue Line Streams
Perennial 1-3
Perennial >4
Intermittent
Subsurface
City Boundary

City Boundary (750K)
Counties
Parcels
Parcels (no APN labels)

Printed: July 10, 2021 Web AppBuilder 2.0 for ArcGIS

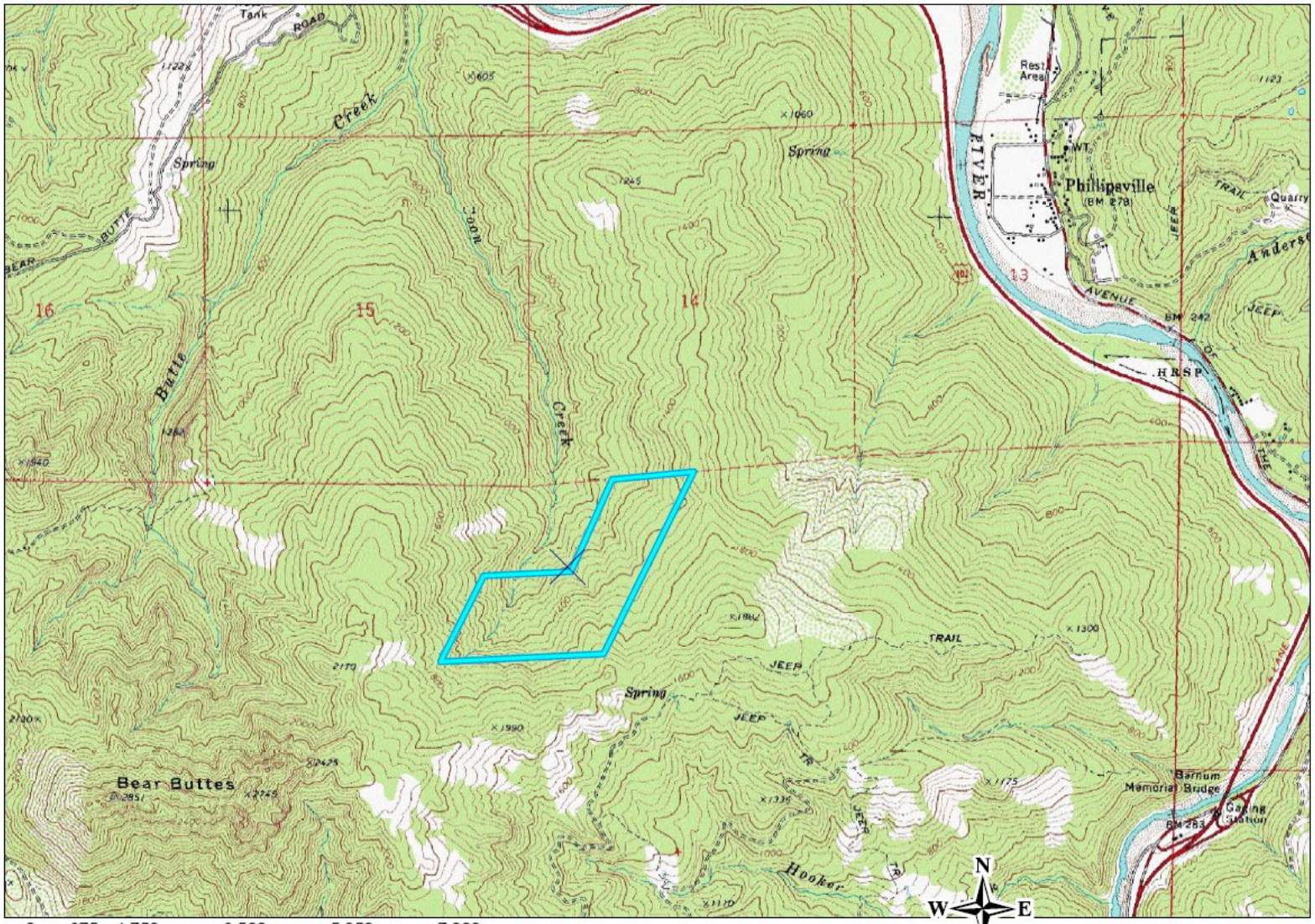
Map Disclaimer:
While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

APN 214-233-008

General Location Map

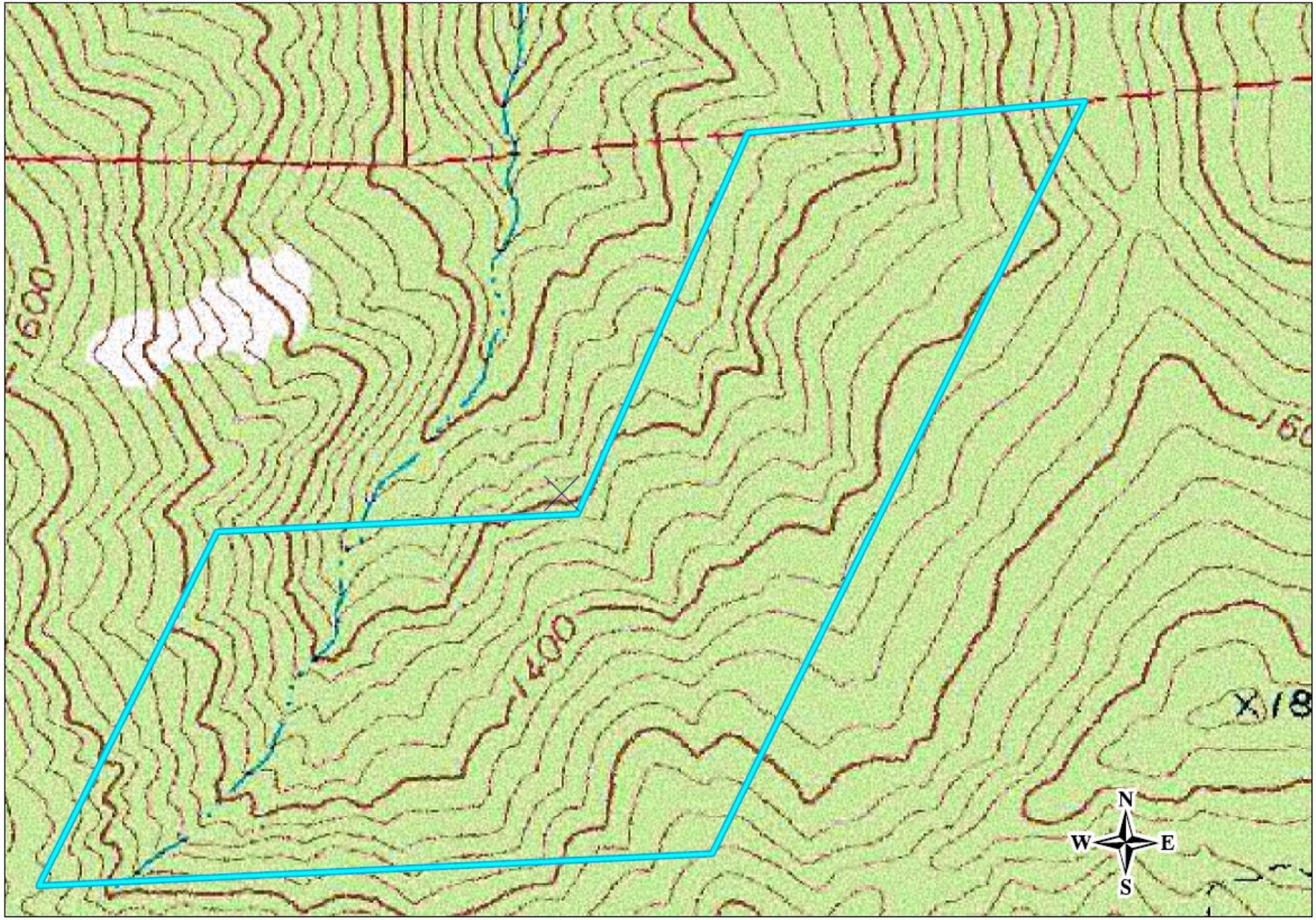
Miranda Quad
T3S R3E Sec 23

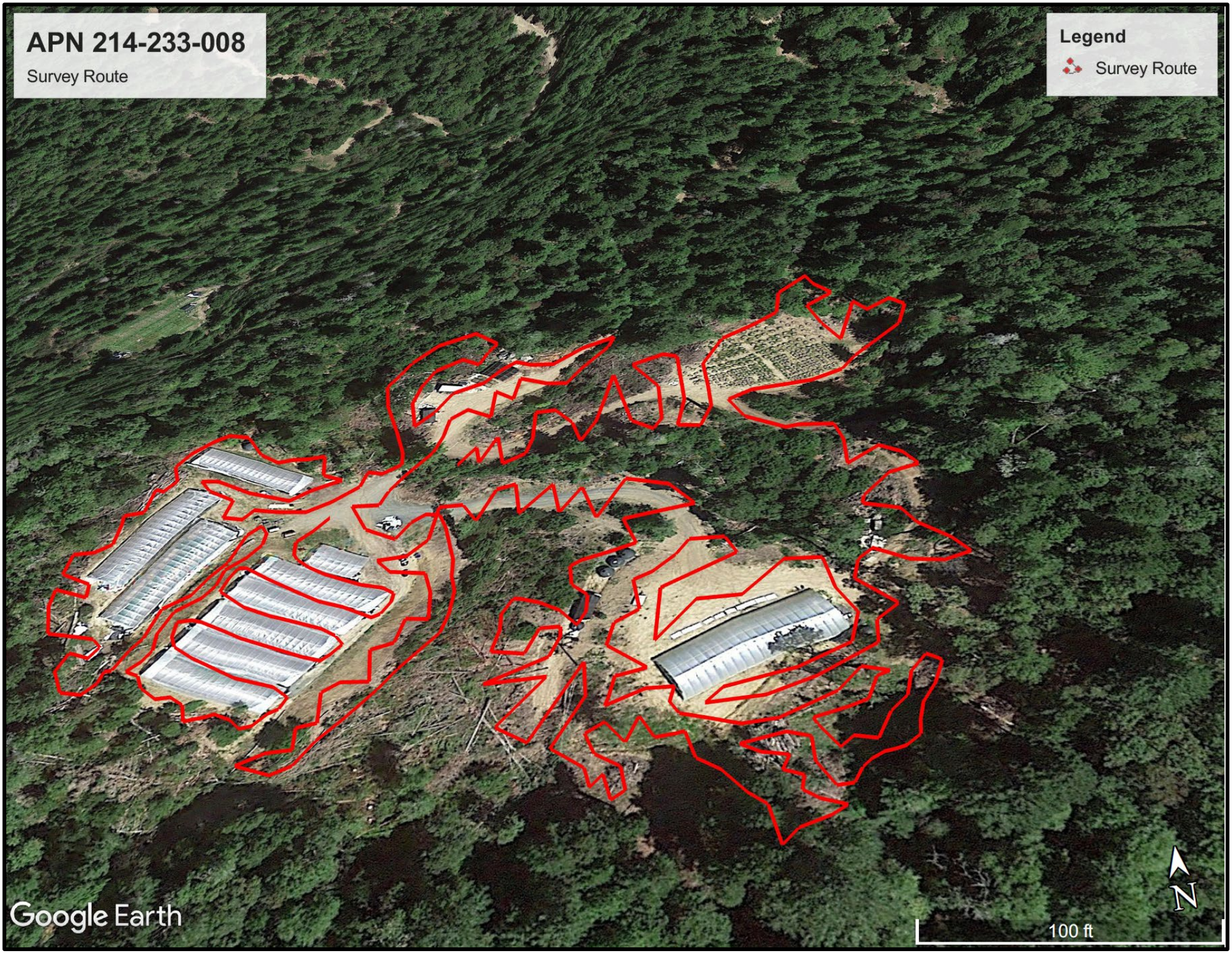


APN 214-233-008

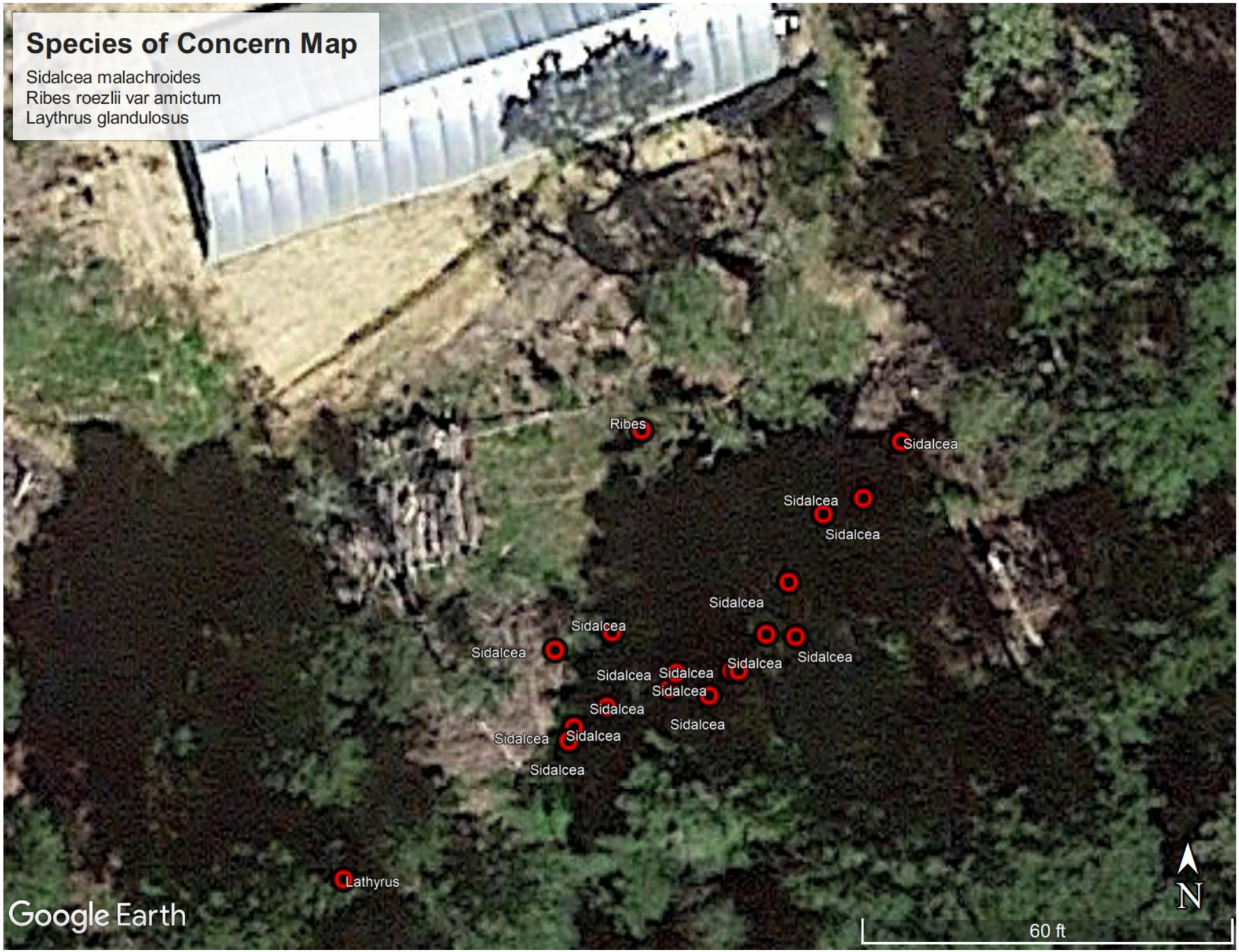
General Location Map

Miranda Quad
T3S R3E Sec 23




APN 214-233-008
Survey Route
Legend
Survey Route
Google Earth
N
100 ft


Species of Concern Map Overview
Ribes
Lathyrus
Google Earth
100 ft
N


Species of Concern Map
Sidalcea malachroides
Ribes roezlii var amictum
Laythrus glandulosus
Ribes
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Sidalcea
Lathyrus
Google Earth
N
60 ft

Attachment D

Photo Documentation

Attachment E

Comprehensive Species List

Tree Layer	
Arbutus menziesii	Madrone
Notholithocarpus densiflorus	Tan oak
Pseudotsuga menziesii	Douglas fir
Quercus agrifolia	Coast live oak
Sequoia sempervirens	Redwood
Umbellularia californica	California bay
Shrub Layer	
Arctostaphylos columbiana	Redwood manzanita
Baccharis pilularis	Coyote brush
Ceanothus parryi	Parry ceanothus
Ceanothus velutinus	Tobacco brush
Gaultheria shallon	Salal
Morella californica	California wax myrtle
Ribes roezlii var. amictum	Sierra gooseberry
Rosa californica	California wild rose
Rubus armeniacus	Himalayan blackberry
Rubus leocodermis	White bark raspberry
Toxicodendron diversilobum	Poison oak
Vaccinium ovatum	Evergreen huckleberry
Herbaceous Layer	
Acmispon parviflorus	Hill lotus
Agrostis exarata	Bentgrass
Aira caryophyllea	Silver hairgrass
Anthoxanthum occidentale	California sweet grass
Anthoxanthum odoratum	Sweet vernal grass
Avena fatua	Wild oat
Bellis perennis	English daisy
Briza major	Rattlesnake grass
Bromus commutatus	Hairy chess
Bromus hordeaceus	Soft brome
Bromus vulgaris	Common brome
Capsella bursa-pastoris	Shepherd's purse
Cardamine hirsuta	Hairy bitter cress
Carex densa	Sedge
Carex gynodynama	Olney’s hairy sedge
Cerastium glomeratum	Large mouse ears
Chenopodium album	Lambs quarters

Cirsium vulgare	Bull thistle
Collomia heterophylla	Varied leaf collomia
Cotula australis	Southern brassbuttons
Crepis capillaris	Smooth hawksbeard
Cynosurus echinatus	Dogtail grass
Cyperus eragrostis	Tall flatsedge
Dactylis glomerata	Orchardgrass
Deschampsia elongata	Slender hairgrass
Elymus glaucus	Blue wildrye
Epilobium brachycarpum	Tall willowherb
Epilobium ciliatum	Slender willow herb
Erigeron canadensis	Canada horseweed
Erigeron foliosus	Leafy daisy
Erigeron sumatrensis	Tropical horseweed
Euchiton gymnocephalus	Creeping cudweed
Euchiton sphaericus	Tropical creeping cudweed
Festuca arundinacea	Tall fescue
Festuca idahoensis	Idaho fescue
Festuca myuros	Rattail sixweeks grass
Festuca perennis	Italian ryegrass
Festuca rubra	Red fescue
Galium parisiense	Wall bedstraw
Galium triflorum	Sweet bedstraw
Gastridium phleoides	Nit grass
Genista monspessulana	French broom
Geranium dissectum	Cut-leaf geranium
Helenium puberulum	Sneezeweed
Helminthoteca echioides	Bristly oxtongue
Holcus lanatus	Common velvetgrass
Hordeum murinum	Foxtail barley
Hypochaeris glabra	Smooth cat's ear
Hypericum perforatum	St. John's wort
Juncus balticus	Baltic rush
Juncus effusus	Common rush
Lactuca serriola	Prickly wild lettuce
Lactuca virosa	Wild lettuce
Lathyrus glandulosus	Sticky Pea
Leontodon saxatilis	Hawkbit
Lepidium didymum	Lesser swine cress
Leucanthemum vulgare	Oxeye daisy
Lonicera hispidula	Pink honeysuckle
Luzula comosa	Hairy wood rush
Lysimachia latifolia	Pacific starflower
Madia gracilis	Grassy tarweed
Malva parviflora	Cheeseweed mallow

Matricaria discoidea	Pineapple weed
Medicago polymorpha	California burclover
Mentha pulegium	Pennyroyal
Myosotis discolor	Forget me not
Pentagramma triangularis	Gold back fern
Plantago major	Common plantain
Poa annua	Annual blue grass
Polygonum aviculare	Prostrate knotweed
Polypogon monspeliensis	Rabbitsfoot grass
Polystichum californicum	California sword fern
Polystichum munitum	Sword fern
Prunella vulgaris	Self heal
Pseudognaphalium californicum	Ladies' tobacco
Pseudognaphalium luteoalbum	Jersey cudweed
Pseudognaphalium stramineum	Cottonbatting plant
Pteridium aquilinum	Bracken fern
Pyrola picta	White veined wintergreen
Rumex acetosella	Sheep sorrel
Rytidosperma penicillatum	Purple awned wallaby grass
Senecio minimus	Coastal burnweed
Senecio vulgaris	Common groundsel
Senecio sylvaticus	Woodland groudsel
Sidalcea malachroides	Maple leaved checkerbloom
Sonchus asper ssp. asper	Prickly sow thistle
Sonchus oleraceus	Sow thistle
Spergularia rubra	Red sandspurry
Stachys sp.	Hedge nettle
Stellaria media	Chickweed
Torilis arvensis	Field hedge parsley
Trifolium angustifolium	Narrow leaved clover
Trifolium dubium	Shamrock clover
Trifolium hirtum	Rose clover
Trifolium repens	White clover
Urtica urens	Annual stinging nettle
Usnea sp.	Beard lichen
Verbascum thapsus	Mullein
Viola sempervirens	Redwood violet
Whipplea modesta	Modesty
Woodwardia fimbriata	Chain fern

Attachment F

Sensitive Plant Profiles

Sensitive Plant Profile

Maple-leaved Checkerbloom *Sidalcea malachroides*

Conservation Status	
CA Rare Plant Rank:	4.2
Fed Listing:	None
State Listing:	None
Global Rank:	G3
Key Facts	
Family:	Malvaceae
Bloom Period:	(Mar) Apr-Aug
States:	CA, OR

Maple-leaved checkerbloom (scientific name: Sidalcea malachroides) is a perennial herb to subshrub with a California rare plant rank of 4.2. This rank is defined as: plants of limited distribution; fairly threatened in California:

Sidalcea malachroides. Photo credit: authors

Identification: Specimens have maple-like palmate leaves with roughly crenate margins. The vegetation is covered in forked to stellate hairs. Leaves tend to be uniform in size and are distributed all along the stems, which can be woody at maturity. This species shares some traits with other members of the Sidalcea genus, such as petals which tend to be notched with conspicuous veins, but can be distinguished by its greater number of stems, generally white flowers, and inflorescence type. Flowers are born on a dense spike like inflorescence in which the rachis tends not to be visible, but the bracts enclosing the immature buds or the fruits are large and distinct.

Habitat: Clearings in forested coastal ranges of Southern Oregon to Central California. Sometimes disturbed areas. Populations tend to disappear under dense canopy cover.

Threats: Known threats to this species include road development, logging, forest management that discourages open areas, and invasive species. Many populations have disappeared.

Sensitive Plant Profile

Hoary Gooseberry *Ribes roezlii var. amictum*

Conservation Status	
CA Rare Plant Rank:	4.3
Fed Listing:	None
State Listing:	None
Global Rank:	G5T4
Key Facts	
Family:	Grossulariaceae
Bloom Period:	Mar-May
States:	CA

Hoary gooseberry (scientific name: Ribes roezlii var. amictum) is a perennial deciduous shrub that is endemic to California and has a California rare plant rank of 4.3. This rank is defined as: plants of limited distribution; not very threatened in California:

Ribes roezlii var. amictum. Photo credit: CalFlora

Identification: The shrub is less than 1.5 meters in height. Stems carry between 1-3 spines at each node. Leaves are palmate and lobed, 1.2-2.5 cm in diameter. Flowers are white with a long hypanthium, anthers that exceed the petals and styles which exceed the anthers. Sepals are red-purple and reflexed. The fruit is green at emergence, reddening at maturity, with robust prickles. The *amictum* variety can be distinguished from other varieties in the species by the dense white pubescence present on the underside of the leaf, the sepals, and the hypanthium.

Habitat: Occurs only in Humboldt county. Found in semi-open forested areas and woodland edges between elevations of 120 - 2300 meters.

Threats: Known threats to this species include logging, and invasive species. Sensitive to development due to a very limited range.

Sensitive Plant Profile

Sticky Pea *Lathyrus glandulosus*

Conservation Status	
CA Rare Plant Rank:	4.3
Fed Listing:	None
State Listing:	None
Global Rank:	G3
Key Facts	
Family:	Fabaceae
Bloom Period:	Apr-June
States:	CA

Sticky pea (scientific name: Lathyrus glandulosus) is a perennial rhizomatous herb that is endemic to California and has a California rare plant rank of 4.3. This rank is defined as: plants of limited distribution; not very threatened in California:

Lathyrus glandulosus. Photo credit: Barrett Jefferey

Identification: Vegetation of this plant is glandular hairy. The stems are not winged. Leaves are pinnately compound with small stipules and terminating in tendrils. Leaflet pairs range from nearly opposite to alternate. The leaflet shapes are ovate or lanceolate and between 3-5 cm in length. Flowers are purple, in the typical pea format with a long calyx tube. This species can best be distinguished by the glandular dots which occur on the underside of the leaflets and on the fruit.

Habitat: Occurs in Humboldt and Mendocino counties. Found in semi-open forested areas, especially oak woodlands at elevations less than 800 meters. Found sometimes at roadsides.

Threats: Known threats to this species include road development logging, and invasive species.

Attachment G

Combined Vegetation Rapid Assessment and Releve Form

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance A0106 Association CEGL000080

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION circle: Relevé or RA

Database #:	Date: 5/8/21	Name of recorder: Todd Golder
		Other surveyors: Alyssa Boyd
	UID:	Location Name: 214-233-008

GPS name: Garmin 1 For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME 420633 UTMN 4449758 Zone: 10T NAD83 GPS error: ft./m. PDOP 33

Decimal degrees: LAT 40.1932 LONG -123.81

GPS within stand? Yes / No If No, cite from GPS to stand: distance (m)____ bearing °____ inclination °____

and record: Base point ID 1147 Projected UTMs: UTME 420633 UTMN 4449758

Camera Name: Fuji 1 Cardinal photos at ID point: NA

Other photos: NA

Stand Size (acres): <1 / 1-5, >5 | Plot Area (m²): 100 / 459m² | Plot Dimensions 27 x 17 m | RA Radius N/A m

Exposure, Actual °: N/A NE NW SE SW Flat Variable | Steepness, Actual °: N/A 0° 1-5° > 5-25° > 25

Topography: Macro: top upper mid lower bottom | Micro: convex flat concave undulating

Geology code: Sand Soil Texture code: Loam | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 BA Stems: 20 Litter: 60 Bedrock: 0 Boulder: 0 Stone: 5 Cobble: 5 Gravel: 5 Fines: 5 =100%

% Current year bioturbation 0 Past bioturbation present? Yes / No | % Hoof punch 0

Fire evidence: Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Grassy open area on forest outskirts adjacent to cultivation area. Some wetland obligate species, likely recieving drainage from surrounding areas. Large slash/woody debris pile within habitat. Likely recent history of disturbance.

Disturbance code / Intensity (L,M,H): 05 / L 13 / M ___/___ ___/___ ___/___ "Other" Woodpile / M

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: A0106 - Douglas fir - Tan oak

Field-assessed Association name (optional): CEGL000080 Pseudotsuga / Notholithocarpus / Vaccinium ovatum

Adjacent Alliances/direction: ___/___, ___

Confidence in Alliance identification: L M H Explain: ___

Phenology (E,P,L): Herb___ Shrub___ Tree___ Other identification or mapping information:

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

Database #: _____ SPECIES SHEET

IV. VEGETATION DESCRIPTION

% NonVasc cover: 1 **Total % Vasc Veg cover:** 60

% Cover - Conifer tree / Hardwood tree: 5 / 5 Regenerating Tree: 0 Shrub: 5 Herbaceous: 85

Height Class - Conifer tree / Hardwood tree: 7 / 7 Regenerating Tree: 0 Shrub: 2 Herbaceous: 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
S	Sidalcea malachroides	15	cc	Sidalcea malachroides
S	Vaccinum ovatum	10		Vaccinum ovatum
H	mentha pulegium	3		Mentha pulegium
H	Carex densa	7	cc	Carex densa
H	Juncus effusus	3	cc	Juncus effesus
H	senecio minimus	7	cc	Senecio minimus
H	Carex synodyname	2	cc	Carex synodyname
S	whipplea modesta	5		Whipplea modesta
H	Stachys sp	5	cu	Stachys sp
H	Anthoxanthum occidentale	2		Anthoxanthum occidentale
H	Cirsium vulgare	5		Cirsium vulgare
H	Lathyrus sp.	2	cu	Lathyrus "glandulosus"
S	Ribes roezlii	1	cc	Ribes roezlii var amictum
H	Bromus vulgaris	3	cc	Bromus vulgaris
H	Agrostis exarata	7	cc	Agrostis exarata
H	Dactylis glomerata	3		Dactylis glomerata
H	Anthoxanthum odoratum	8		Anthoxanthum odoratum
H	Deschampsia elongata	8	cc	Deschampsia elongata
H	Festuca perennis	5		Festuca perennis
H	Galium triflorum	2	cc	Galium triflorum

Unusual species: _____