

# Floristic Survey Report

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## APN 214-233-008

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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.

### Canoeecreek -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-Canoeecreek

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- C EGL000080- *Pseudotsuga menziessi*/*Notholithocarpus densiflorus*/*Vaccinium 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 (*Notholithocarpus 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 (CNDDDB) 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<sup>2</sup> 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 *Ribes 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,

A handwritten signature in black ink, appearing to read "Todd Golder".

Todd Golder  
CRM #119

A handwritten signature in black ink, appearing to read "Alyssa N. Boyd".

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                               |
|------------------------------------------------|----------------------------|------|-------------|------------|------|------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <i>Usnea longissima</i>                        | Methuselah's beard lichen  | 4.2  | G4          | S4         | None | None | N/A                   | Broadleafed upland forest, North Coast coniferous forest                                                                              | On tree branches                            |
| <i>Hemizonia congesta</i> ssp. <i>tracyi</i>   | Tracy's tarplant           | 4.3  | G5T4        | S4         | None | None | May-Oct               | Coastal prairie, Lower montane coniferous forest, North Coast coniferous forest                                                       | openings, sometimes serpentinite            |
| <i>Packera bolanderi</i> var. <i>bolanderi</i> | seacoast ragwort           | 2B.2 | G4T4        | S2S3       | None | None | (Jan-Apr)May-Jul(Aug) | Coastal scrub, North Coast coniferous forest                                                                                          | Sometimes roadsides                         |
| <i>Epilobium septentrionale</i>                | Humboldt County fuchsia    | 4.3  | G4          | S4         | None | None | Jul-Sep               | Broadleafed upland forest, North Coast coniferous forest                                                                              | sandy or rocky                              |
| <i>Piperia candida</i>                         | white-flowered rein orchid | 1B.2 | G3          | S3         | None | None | (Mar)May-Sep          | Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest                                             |                                             |
| <i>Lathyrus glandulosus</i>                    | sticky pea                 | 4.3  | G3          | S3         | None | None | Apr-Jun               | Cismontane woodland                                                                                                                   |                                             |
| <i>Listera cordata</i>                         | heart-leaved twayblade     | 4.2  | G5          | S4         | None | None | Feb-Jul               | Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest                                                         |                                             |
| <i>Lilium rubescens</i>                        | 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 |
| <i>Lycopodium clavatum</i>                     | 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        |
| <i>Sidalcea malachroides</i>                   | 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                    |
| <i>Sidalcea malviflora</i> ssp. <i>patula</i>  | Siskiyou checkerbloom      | 1B.2 | G5T2        | S2         | None | None | (Apr)May-Aug          | Coastal bluff scrub, Coastal prairie, North Coast coniferous forest                                                                   | often roadcuts                              |
| <i>Montia howellii</i>                         | 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                           |
|-------------------------------------|-----------------------------|------|-------------|------------|------|------|------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <i>Astragalus agnicidus</i>         | Humboldt County milk-vetch  | 1B.1 | G2          | S2         | CE   | None | Apr-Sep          | Broadleafed upland forest, North Coast coniferous forest                                                                   | openings, disturbed areas, roadsides    |
| <i>Erythronium oregonum</i>         | giant fawn lily             | 2B.2 | G4G5        | S2         | None | None | Mar-Jun(Jul)     | Cismontane woodland, Meadows and seeps                                                                                     | sometimes serpentinite, rocky, openings |
| <i>Gilia capitata ssp. pacifica</i> | Pacific gilia               | 1B.2 | G5T3        | S2         | None | None | Apr-Aug          | Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland                                  |                                         |
| <i>Mitellastraca caulescens</i>     | 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              |
| <i>Carex arcta</i>                  | northern clustered sedge    | 2B.2 | G5          | S1         | None | None | Jun-Sep          | Bogs and fens, North Coast coniferous forest                                                                               |                                         |
| <i>Lycopus uniflorus</i>            | northern bugleweed          | 4.3  | G5          | S4         | None | None | Jul-Sep          | Bogs and fens, Marshes and swamps                                                                                          |                                         |
| <i>Leptosiphon latisectus</i>       | broad-lobed leptosiphon     | 4.3  | G4          | S4         | None | None | Apr-Jun          | Broadleafed upland forest, Cismontane woodland                                                                             |                                         |
| <i>Erythronium revolutum</i>        | coast fawn lily             | 2B.2 | G4G5        | S3         | None | None | Mar-Jul(Aug)     | Bogs and fens, Broadleafed upland forest, North Coast coniferous forest                                                    | Mesic, streambanks                      |
| <i>Ribes roezlii var. amictum</i>   | hoary gooseberry            | 4.3  | G5T4        | S4         | None | None | Mar-Apr          | Broadleafed upland forest, Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest           |                                         |
| <i>Pityopus californicus</i>        | 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                                   |
| <i>Pleuropogon hooverianus</i>      | 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                       |
| <i>Kopsiopsis hookeri</i>           | small groundcone            | 2B.3 | G4?         | S1S2       | None | None | Apr-Aug          | North Coast coniferous forest                                                                                              |                                         |
| <i>Erigeron biolettii</i>           | streamside daisy            | 3    | G3?         | S3?        | None | None | Jun-Oct          | Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest                                              | rocky, mesic                            |
| <i>Leptosiphon acicularis</i>       | 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 CNDDDB, 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 Overview

Species of Concern Map

# Soil Map—Humboldt County, South Part, California



**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

7/23/2021  
Page 1 of 3





## County Parcel Map

Humboldt County Planning and Building Department

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)

0 1,400 2,800 5,600 Feet

0 0.25 0.5 1 Miles

RF = 1:36,112

1 in = 3,009 ft



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.

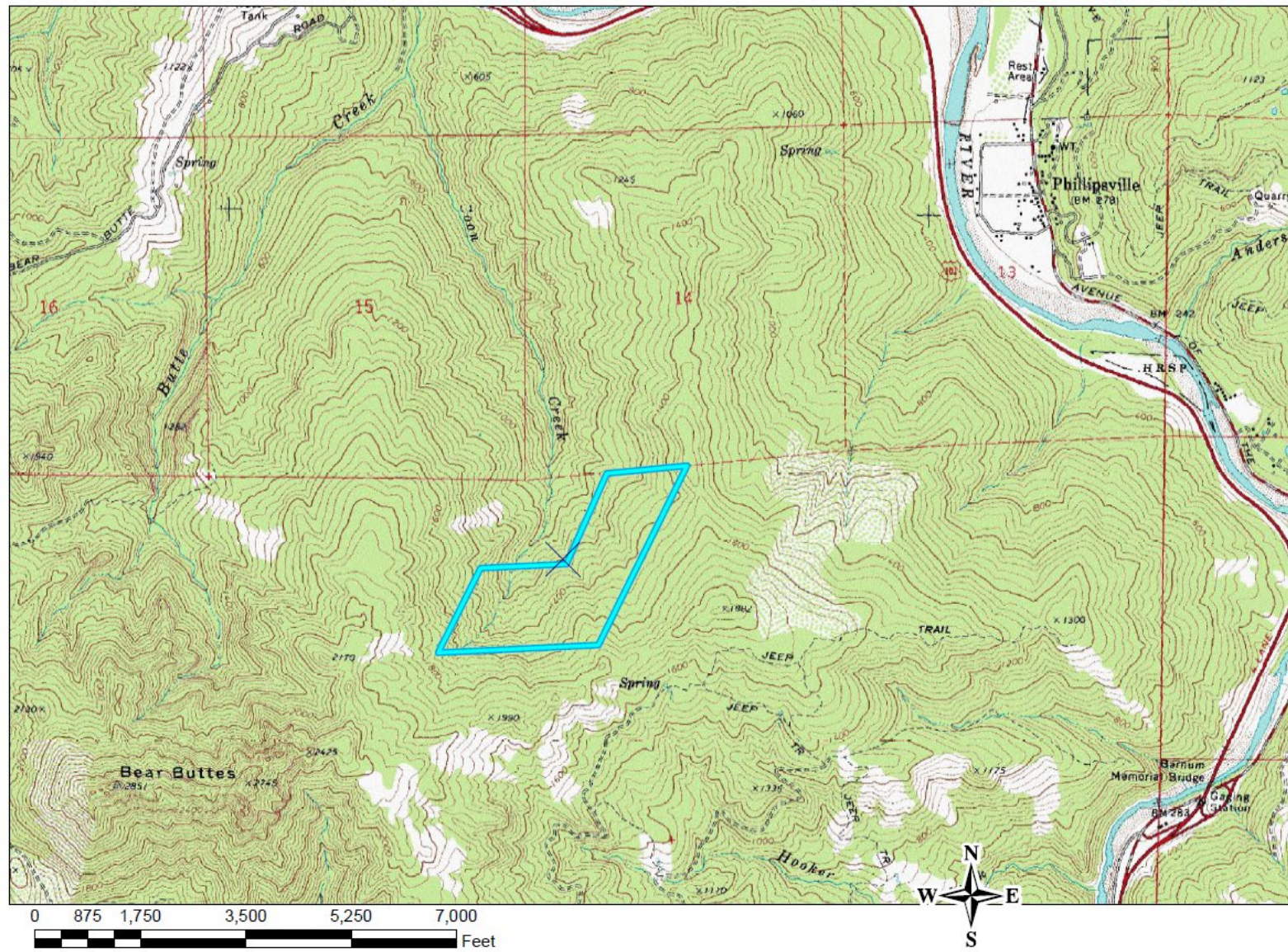
Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



APN 214-233-008

## General Location Map

Miranda Quad  
T3S R3E Sec 23

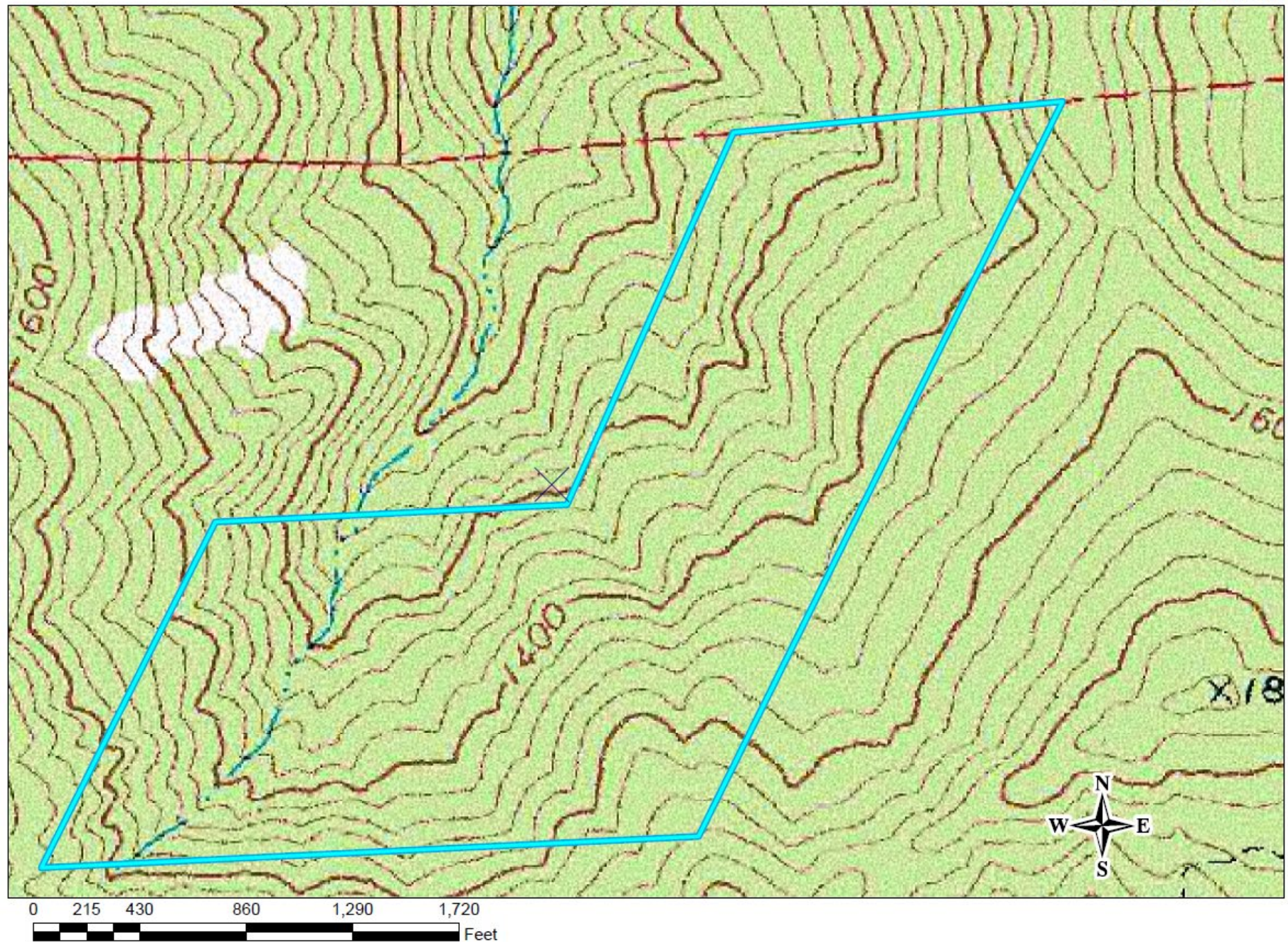




APN 214-233-008

## General Location Map

Miranda Quad  
T3S R3E Sec 23





**APN 214-233-008**

Survey Route

**Legend**

 Survey Route

Google Earth

100 ft





## Species of Concern Map Overview





## Species of Concern Map

*Sidalcea malachroides*  
*Ribes roezlii* var *amictum*  
*Lathyrus glandulosus*

Ribes

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Sidalcea

Lathyrus

Google Earth



60 ft

**Attachment D**  
Photo Documentation









## Attachment E

### Comprehensive Species List

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



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

|                                      |                            |
|--------------------------------------|----------------------------|
| <i>Matricaria discoidea</i>          | Pineapple weed             |
| <i>Medicago polymorpha</i>           | California burclover       |
| <i>Mentha pulegium</i>               | Pennyroyal                 |
| <i>Myosotis discolor</i>             | Forget me not              |
| <i>Pentagramma triangularis</i>      | Gold back fern             |
| <i>Plantago major</i>                | Common plantain            |
| <i>Poa annua</i>                     | Annual blue grass          |
| <i>Polygonum aviculare</i>           | Prostrate knotweed         |
| <i>Polypogon monspeliensis</i>       | Rabbitsfoot grass          |
| <i>Polystichum californicum</i>      | California sword fern      |
| <i>Polystichum munitum</i>           | Sword fern                 |
| <i>Prunella vulgaris</i>             | Self heal                  |
| <i>Pseudognaphalium californicum</i> | Ladies' tobacco            |
| <i>Pseudognaphalium luteoalbum</i>   | Jersey cudweed             |
| <i>Pseudognaphalium stramineum</i>   | Cottonbatting plant        |
| <i>Pteridium aquilinum</i>           | Bracken fern               |
| <i>Pyrola picta</i>                  | White veined wintergreen   |
| <i>Rumex acetosella</i>              | Sheep sorrel               |
| <i>Rytidosperma penicillatum</i>     | Purple awned wallaby grass |
| <i>Senecio minimus</i>               | Coastal burnweed           |
| <i>Senecio vulgaris</i>              | Common groundsel           |
| <i>Senecio sylvaticus</i>            | Woodland groundsel         |
| <i>Sidalcea malachroides</i>         | Maple leaved checkerbloom  |
| <i>Sonchus asper ssp. asper</i>      | Prickly sow thistle        |
| <i>Sonchus oleraceus</i>             | Sow thistle                |
| <i>Spergularia rubra</i>             | Red sandspurry             |
| <i>Stachys sp.</i>                   | Hedge nettle               |
| <i>Stellaria media</i>               | Chickweed                  |
| <i>Torilis arvensis</i>              | Field hedge parsley        |
| <i>Trifolium angustifolium</i>       | Narrow leaved clover       |
| <i>Trifolium dubium</i>              | Shamrock clover            |
| <i>Trifolium hirtum</i>              | Rose clover                |
| <i>Trifolium repens</i>              | White clover               |
| <i>Urtica urens</i>                  | Annual stinging nettle     |
| <i>Usnea sp.</i>                     | Beard lichen               |
| <i>Verbascum thapsus</i>             | Mullein                    |
| <i>Viola sempervirens</i>            | Redwood violet             |
| <i>Whipplea modesta</i>              | Modesty                    |
| <i>Woodwardia fimbriata</i>          | 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 <u>AO106</u><br>Association <u>CEGL000080</u>       |
| I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION                                                                                                                                                                                                                                           |                     |                                                                                           | circle: Relevé or <u>RA</u>                                  |
| Database #:                                                                                                                                                                                                                                                                       | Date: <u>5/8/21</u> | Name of recorder: <u>Todd Golder</u>                                                      | <input type="checkbox"/>                                     |
|                                                                                                                                                                                                                                                                                   | UID:                | Other surveyors: <u>Alyssa Boyd</u>                                                       |                                                              |
|                                                                                                                                                                                                                                                                                   |                     | Location Name: <u>214-233-008</u>                                                         | <input type="checkbox"/>                                     |
| GPS name: <u>Garmin 1</u>                                                                                                                                                                                                                                                         |                     | For Relevé only: Bearing°, left axis at ID point _____ of <u>Long</u> / <u>Short</u> side |                                                              |
| UTME <u>42063</u>                                                                                                                                                                                                                                                                 |                     | UTMN <u>4449758</u>                                                                       | Zone: <u>18</u> NAD83 GPS error: ft. <u>6</u> PDOP <u>33</u> |
| Decimal degrees: LAT <u>40.1932</u>                                                                                                                                                                                                                                               |                     | LONG <u>-123.81</u>                                                                       |                                                              |
| GPS within stand? <u>Yes</u> No                                                                                                                                                                                                                                                   |                     | If No, cite from GPS to stand: distance (m) _____ bearing ° _____ inclination ° _____     |                                                              |
| and record: Base point ID <u>1147</u>                                                                                                                                                                                                                                             |                     | Projected UTMs: UTME <u>42063</u> UTMN <u>4449758</u>                                     |                                                              |
| Camera Name: <u>Fuji 1</u>                                                                                                                                                                                                                                                        |                     | Cardinal photos at ID point: <u>NA</u>                                                    |                                                              |
| Other photos: <u>NA</u>                                                                                                                                                                                                                                                           |                     |                                                                                           |                                                              |
| Stand Size (acres): <u>&lt;1</u> 1-5, >5                                                                                                                                                                                                                                          |                     | Plot Area (m²): 100 / <u>459m²</u> Plot Dimensions <u>27 x 17m</u> RA Radius <u>N/A</u>   |                                                              |
| Exposure, Actual °: <u>N/A</u> NE <u>NW</u> SE SW Flat Variable                                                                                                                                                                                                                   |                     | Steepness, Actual °: <u>N/A</u> 0° <u>1-5°</u> > 5-25° > 25                               |                                                              |
| Topography: Macro: top upper <u>mid</u> lower bottom                                                                                                                                                                                                                              |                     | Micro: convex <u>flat</u> concave undulating                                              |                                                              |
| Geology code: <u>Sand</u> Soil Texture code: <u>Loam</u>                                                                                                                                                                                                                          |                     | <u>Upland</u> or Wetland/Riparian (circle one)                                            |                                                              |
| % Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)                                                                                                                                                                                  |                     |                                                                                           |                                                              |
| H20: 0 BA Stems: <u>20</u> Litter: <u>60</u> Bedrock: 0 Boulder: 0 Stone: 5 Cobble: 5 Gravel: 5 Fines: 5 =100%                                                                                                                                                                    |                     |                                                                                           |                                                              |
| % Current year bioturbation <u>0</u> Past bioturbation present? Yes / <u>No</u>                                                                                                                                                                                                   |                     | % Hoof punch <u>0</u>                                                                     |                                                              |
| Fire evidence: Yes / <u>No</u> (circle one) If yes, describe in Site history section, including date of fire, if known.                                                                                                                                                           |                     |                                                                                           |                                                              |
| Site history, stand age, comments: <u>Grassy open area on forest outskirts adjacent to cultivation area. Some wetland obligate species, likely receiving drainage from surrounding areas. Large slash/woody debris pile within habitat. Likely recent history of disturbance.</u> |                     |                                                                                           |                                                              |
| Disturbance code / Intensity (L,M,H): <u>05/L 13/M</u> / _____ / _____ / _____ "Other" <u>Woodpile / M</u>                                                                                                                                                                        |                     |                                                                                           |                                                              |
| II. HABITAT DESCRIPTION                                                                                                                                                                                                                                                           |                     |                                                                                           |                                                              |
| Tree DBH: <u>T1</u> (<1" dbh), <u>T2</u> (1-6" dbh), <u>T3</u> (6-11" dbh), <u>T4</u> (11-24" dbh), <u>T5</u> (>24" dbh), <u>T6</u> multi-layered (T3 or T4 layer under T5, >60% cover)                                                                                           |                     |                                                                                           |                                                              |
| Shrub: <u>S1</u> seedling (<3 yr. old), <u>S2</u> young (<1% dead), <u>S3</u> mature (1-25% dead), <u>S4</u> decadent (>25% dead)                                                                                                                                                 |                     |                                                                                           |                                                              |
| Herbaceous: <u>H1</u> (<12" plant ht.), <u>H2</u> (>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: <u>AO106 - Douglas fir - Tan oak</u>                                                                                                                                                                                                     |                     |                                                                                           |                                                              |
| Field-assessed Association name (optional): <u>CEGL000080 Pseudotsuga / Notholithocarpus /</u>                                                                                                                                                                                    |                     |                                                                                           |                                                              |
| Adjacent Alliances/direction: _____ / _____ <u>Vaccinium ovatum</u>                                                                                                                                                                                                               |                     |                                                                                           |                                                              |
| Confidence in Alliance identification: L M H Explain: _____                                                                                                                                                                                                                       |                     |                                                                                           |                                                              |
| Phenology (E,P,L): Herb Shrub Tree Other identification or mapping information: _____                                                                                                                                                                                             |                     |                                                                                           |                                                              |

(Revised March 27, 2018)

SPECIES SHEET

% NonVasc cover: / Total % Vasc Veg cover: 60

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

Height classes: 1= $\leq 1/2$ m, 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= $\geq 50$ m

**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%

Unusual species: