



Biological Assessment for Jesse Cabral
Assessor's Parcel Number (APN) 108-071-003
Humboldt County, California



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PURPOSE

A biological survey was conducted for the 161 acre Jesse Cabral property for a five-thousand square foot outdoor cannabis cultivation operation project site on May 25, 2020. The purpose was to determine the presence or absence of sensitive biological communities and habitat for threatened, endangered or rare species, or other special status biological resources. The site was also evaluated for the presence or absence of non-native, invasive plant species. Potential direct or indirect impacts to biological resources were evaluated. Recommendations to avoid, minimize or mitigate potential direct or indirect impacts to biological resources with potential to occur on the project site are provided.

PROJECT LOCATION

The project site is located on part of Assessor's Parcel Number (APN) 108-071-003 on Paradise Ridge Road, near Whitethorn, California. The cannabis cultivation project site consists of one small five-thousand square foot outdoor cannabis cultivation site with three existing terraces and existing planting boxes.

This parcel is west of Whitethorn, California, approximately 2 miles north of Shelter Cove Road on Paradise Ridge Road. The site is within the northeast quadrant of the Shelter Cove quadrangle, Section 36, Township 4 South, Range 2 East. The property is in a timber production zone. The property elevation ranges from approximately 800 feet in elevation to 1,800 feet. The cannabis garden is located at approximately latitude -124.01232, and longitude 40.07699. The relative slope stability is rated 2.

The project site for the cannabis cultivation is confined to three existing terraces for outdoor cultivation near a rural residential home. A rainwater catchment basin is used for cannabis cultivation irrigation.



Figure 1. Vicinity Map



Figure 2. Humboldt County Parcel Map for APN 108-071-003 (Note: the parcel boundaries on Humboldt County GIS maps are off)

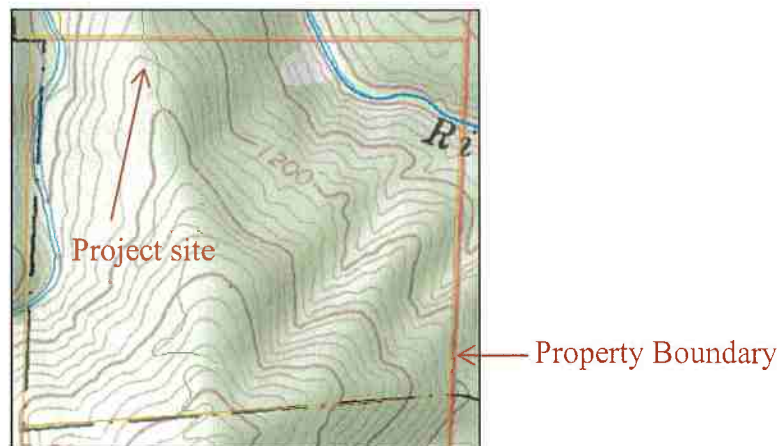


Figure 3. USGS Topographical Map of Parcel

METHODS

A reconnaissance-level survey of the project site and surrounding habitat was conducted by foot. The survey sampled the plant communities on the project site. Binoculars were used to identify avian species and nesting habitat. All observations of wildlife species were recorded. Plant communities observed are depicted on the vegetation map (Figure 4). Plant communities were identified using the [Manual of California Vegetation Online](#) (John Sawyer, Todd Keeler-Wolf, Julie Evens, 2019), and [California Vegetation](#) (Holland and Keil, 1989). A list of vascular plant species observed during the survey is provided as Appendix A.

The [California Natural Diversity Data Base \(CNDDB\)](#) (California Department of Fish and Wildlife, 2020) was accessed to determine the list of plant and animal species with potential to occur on the

Shelter Cove quadrangle (Table 1). The eight quadrangles surrounding the Shelter Cove quadrangle were also considered. The surrounding eight quadrangles include Honeydew, Ettersburg, Briceland, Shubrick Peak, Shubrick Peak OWE (largely ocean), Bear Harbor and Bear Harbor OWE. The Pacific Ocean is west of the Shelter Cove quadrangle. Therefore; three of the eight surrounding quadrangles are largely ocean and do not have terrestrial species listed in the CNDDDB.

The California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS, 2020) was accessed for a list of special status plants that may occur in the vicinity (Table 2). Plant species were identified using the Jepson Manual (Hickman, 1993).

Regulatory information is provided in Appendix B. A list of literature and references used is provided in Appendix C.

RESULTS

Plant Communities

The project site has four plant communities. Plant communities include mixed riparian forest, mixed evergreen forest, seep and ruderal vegetation. Ruderal vegetation and landscaping grow around the garden area and home.

Mixed Evergreen Forest

The mixed evergreen forest is largely a tanbark oak/Douglas fir forest association that encompasses nearly the entire parcel. The plant community is dominated by Douglas fir (*Pseudotsuga menziesii* var. *menziesii*) and tanbark oak (*Lithocarpus densiflorus*) in the overstory. The forest also includes madrone (*Arbutus menziesii*), dogwood (*Cornus nuttallii*), California bay (*Umbellularia californica*) and interior live oak (*Quercus wislizeni* var. *wislizeni*). This portion of forest was burned in the early 1970's resulting in a dense stand of trees that are relatively uniform in age. Old growth characteristics are not present. The understory can be sparse or bare under the shaded thickets of small trees. Snags remain in the forests. The understory is largely composed of huckleberry (*Vaccinium ovatum*), bracken fern (*Pteridium aquilinum* var. *pubescens*), salal (*Gaultheria shallon*), and manzanita (*Arctostaphylos* sp.). The forest also has giant chinquapin (*Chrysolepsis chrysophylla*).



Figure 4. Mixed Evergreen Forest

Mixed Riparian Forest

A small reach of the Mattole River occurs on the northeast corner of the parcel, approximately 1,200 feet away from the outdoor cultivation site. A narrow strip of mixed riparian forest is also associated with the unnamed tributary to Big Fenley Creek west of the cultivation site. The mixed riparian forest plant community along the Mattole River is stratified with vigorous overstory, shrub and herbaceous layers. The riparian community along the unnamed tributary to Big Fenley Creek is largely big trees, with an understory composition and density that varies with the availability of light in the narrow canyon. This portion of the property is unused by the commercial and domestic activities on the parcel, except for occasional family recreation activity. A small home hydroelectric system has been installed in the upper portion of this tributary where about twenty-five to thirty percent of the water is diverted and then returned to the creek channel. Plant species in the overstory include madrone, big leaf maple (*Acer macrophyllum*), alder (*Alnus* sp.), Douglas fir and tanbark oak. The understory includes huckleberry, black cap raspberry (*Rubus leucodermis*), western sword fern (*Polystichum munitum*), spikenard (*Aralia californica*) western coltsfoot (*Petasites frigidus* var. *palmaris*), and salal (*Gaultheria shallon*).



Figure 5. Mixed Riparian Forest

Ruderal

Ruderal vegetation and domestic landscaping plants surrounds the outdoor cannabis cultivation site and the rural residential home infrastructure. The landscaping around the home and vicinity also includes native California plants that do not naturally occur on the property. The non-native species include chickweed (*Stellaria media*), ripgut brome (*Bromus diandrus*), sow thistle (*Sonchus oleraceus*) and miniature lotus (*Lotus micranthus*).



Figure 6. Ruderal Vegetation



Figure 7. Existing Planting Boxes

Seep

A few seeps occur within the vicinity of the project site. The species associated with these wetland areas are spikenard, wax myrtle (*Myrica californica*), sedge, (*Carex* sp.), and deer fern (*Blachnum spicant*).



Figure 8. Vegetation Map

Special Status Habitat

Upland Douglas Fir Forest

This special status plant community is associated with the North Coast coniferous forest. It consists of stands of old growth Douglas fir in the overstory. This plant community is documented in the Honeydew and Ettersburg quadrangles. One stand of Upland Douglas Fir Forest documented in the CNDDDB is located approximately 9 miles northwest of the project site.

Discussion: The forest on the project site is composed of natural plant communities of riparian forest and mixed evergreen forest consisting largely of small, densely spaced tanbark oak and Douglas fir. Stands of old growth Douglas fir trees do not occur on the project site.

SPECIAL STATUS ANIMAL SPECIES

The CNDDDB was reviewed for the Shelter Cove quadrangle and the surrounding eight quadrangles to determine the special status plant and animal species with potential to occur on the project site. The CNDDDB list of species with potential to occur in the Shelter Cove quadrangle and the surrounding eight quadrangles is provided in Table 1. Three of the quadrangles are largely Pacific Ocean and do not contain documented listed species.

The Draft Environmental Impact Report for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities (Draft EIR), (Humboldt County, 2017) was reviewed for recommendations to protect sensitive biological resources.

No wildlife were observed on the project site during the reconnaissance level survey given the presence of residents, a dog and domestic activities, and time of day. The density of the small forest trees is not conducive to large and medium animal movement, but the few open areas of understory, trails and roads can be utilized by wildlife.

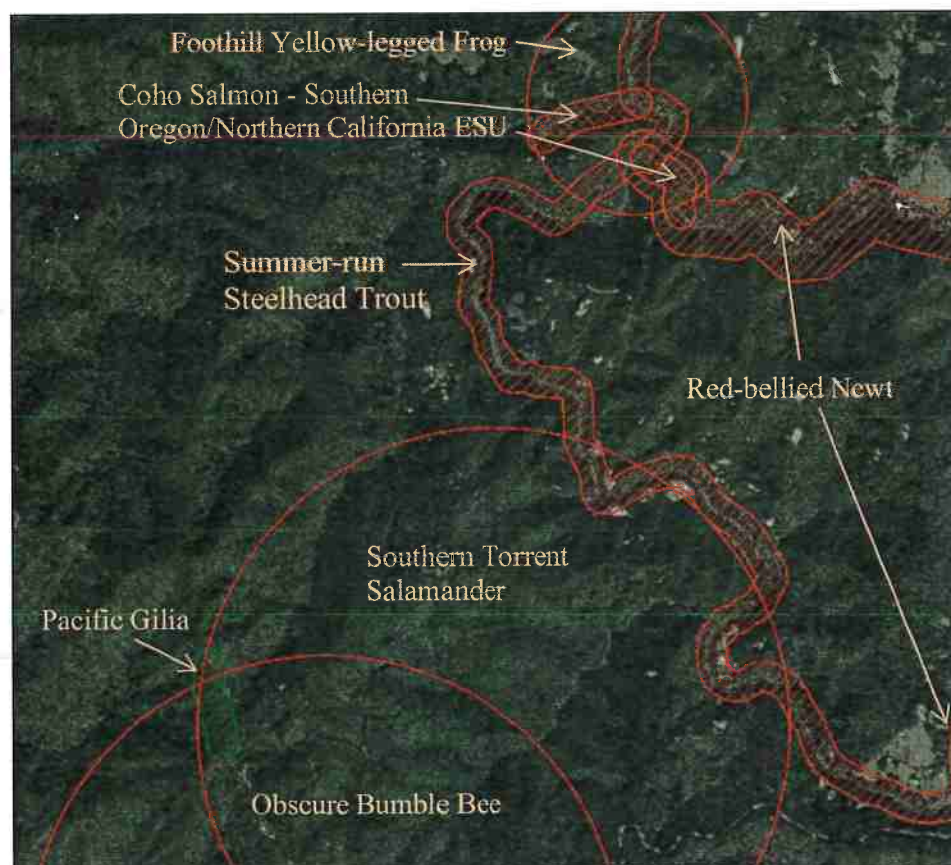


Figure 9. Special Status Species in the Vicinity of the Project Site

Table 1. CNDDB List of Special Status Species for the Shelter Cove Quadrangle and Surrounding Quadrangles

| Scientific Name | Common Name | Federal List | CA List | State Rank | Global Rank | CNPS Plant List | Other Status | Habitats |
|--|------------------------------|--------------|----------------------|------------|-------------|-----------------|---|---|
| <i>Accipiter cooperii</i> | Cooper's hawk | None | None | S4 | G5 | | CDFW_WL-Watch List IUCN_LC-Least Concern | Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest |
| <i>Arborimus pomio</i> | Sonoma tree vole | None | None | S3 | G3 | | CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened | North coast coniferous forest Oldgrowth Redwood |
| <i>Ascaplus truei</i> | Pacific tailed frog | None | None | S3S4 | G4 | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | Aquatic Klamath/North coast flowing waters Lower montane coniferous forest North coast coniferous forest Redwood Riparian forest |
| <i>Bombus caliginosus</i> | obscure bumble bee | None | None | S1S2 | G4? | | IUCN_VU-Vulnerable | |
| <i>Bombus occidentalis</i> | western bumble bee | None | Candidate Endangered | S1 | G2G3 | | USFS_S-Sensitive XERCES IM-Imperiled | |
| <i>Calamagrostis foliosa</i> | leafy reed grass | None | Rare | S3 | G3 | 4.2 | BLM_S-Sensitive | Coastal bluff scrub North coast coniferous forest |
| <i>Castilleja litoralis</i> | Oregon coast paintbrush | None | None | S3 | G3 | 2B.2 | | Coastal bluff scrub Coastal dunes Coastal scrub |
| <i>Castilleja mendocinensis</i> | Mendocino Coast paintbrush | None | None | S2 | G2 | 1B.2 | BLM_S-Sensitive | Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub |
| <i>Clarkia amoena</i> ssp. <i>whitneyi</i> | Whitney's farewell-to-spring | None | None | S1 | G5T1 | 1B.1 | SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley | Coastal bluff scrub Coastal scrub |
| <i>Coptis laciniata</i> | Oregon goldthread | None | None | S3? | G4? | 4.2 | | Meadow & seep North coast coniferous forest Wetland |
| <i>Corynorhinus townsendii</i> | Townsend's big-eared bat | None | None | S2 | G3G4 | | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority | Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland |
| <i>Emys marmorata</i> | western pond turtle | None | None | S3 | G3G4 | | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable | Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters |

| Scientific Name | Common Name | Federal List | CA List | State Rank | Global Rank | CNPS Plant List | Other Status | Habitats |
|---|---|--------------|-------------------------|------------|-------------|-----------------|--|---|
| | | | | | | | USFS_S-Sensitive | Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland |
| | | | | | | | | Broadleaved upland forest Cismontane woodland Closed-cone coniferous forest Lower montane coniferous forest North coast coniferous forest Upper montane coniferous forest |
| <i>Erethizon dorsatum</i> | North American porcupine | None | None | S3 | G5 | | IUCN LC-Least Concern | |
| <i>Erythronium oregonum</i> | giant fawn lily | None | None | S2 | G4G5 | 2B.2 | | Cismontane woodland Meadow & seep Ultramafic |
| <i>Erythronium revolutum</i> | coast fawn lily | None | None | S3 | G4G5 | 2B.2 | | Bog & fen Broadleaved upland forest North coast coniferous forest Wetland |
| <i>Gilia capitata ssp. pacifica</i> | Pacific gilia | None | None | S2 | G5T3 | 1B.2 | | Chaparral Coastal bluff scrub Coastal prairie Valley & foothill grassland |
| <i>Helminthoglypta arrosa monticola</i> | mountain shoulderband | None | None | S1 | G2G3T1 | | | Chaparral Talus slope |
| <i>Lasthenia californica ssp. macrantha</i> | perennial goldfields | None | None | S2 | G3T2 | 1B.2 | | Coastal bluff scrub Coastal dunes Coastal scrub |
| <i>Lathyrus palustris</i> | marsh pea | None | None | S2 | G5 | 2B.2 | | Bog & fen Coastal prairie Coastal scrub Lower montane coniferous forest Marsh & swamp North coast coniferous forest Wetland |
| <i>Mitellastra caulescens</i> | leafy- stemmed mitrewort | None | None | S4 | G5 | 4.2 | | Broadleaved upland forest Lower montane coniferous forest Meadow & seep North coast coniferous forest |
| <i>Montia howellii</i> | Howell's montia | None | None | S2 | G3G4 | 2B.2 | | Meadow & seep North coast coniferous forest Vernal pool Wetland |
| | coho salmon - southern Oregon / northern California | | | | | | | |
| <i>Oncorhynchus kisutch pop. 2</i> | California ESU | Threatened | Threatened | S2? | G4T2Q | | AFS TH-Threatened | Aquatic Klamath/North coast flowing waters Sacramento/San Joaquin flowing waters |
| <i>Oncorhynchus mykiss irideus pop. 36</i> | summer-run steelhead trout | None | Candidate Endangered | S2 | G5T4Q | | CDFW_SSC-Species of Special Concern BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S- Sensitive | Aquatic Klamath/North coast flowing waters Sacramento/San Joaquin flowing waters |
| <i>Pekania penanti</i> | fisher - West Coast DPS | None | Threatened | S2S3 | G5T2T3Q | | | North coast coniferous forest Oldgrowth Riparian forest |

| Scientific Name | Common Name | Federal List | CA List | State Rank | Global Rank | CNPS Plant List | Other Status | Habitats |
|--------------------------------|-----------------------------|--------------|----------------------|------------|-------------|-----------------|--|--|
| <i>Piperia candida</i> | white-flowered rein orchid | None | None | S3 | G3 | 1B.2 | BLM S-Sensitive | Broadleaved upland forest Lower montane coniferous forest North coast coniferous forest Ultramafic |
| <i>Rana boylei</i> | foothill yellow-legged frog | None | Candidate Threatened | S3 | G3 | | BLM S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive | Aquatic Chaparral Cismontane woodland Coastal scrub Klamath/North coast flowing waters Lower montane coniferous forest Meadow & seep Riparian forest Riparian woodland Sacramento/San Joaquin flowing waters |
| <i>Rhyacotriton variegatus</i> | southern torrent salamander | None | None | S2S3 | G3G4 | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS S-Sensitive | Lower montane coniferous forest Oldgrowth Redwood Riparian forest |
| <i>Sidalcea malachroides</i> | maple-leaved checkerbloom | None | None | S3 | G3 | 4.2 | | Broadleaved upland forest Coastal prairie Coastal scrub North coast coniferous forest Riparian forest |
| <i>Taricha rivularis</i> | red-bellied newt | None | None | S2 | G4 | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | Broadleaved upland forest North coast coniferous forest Redwood Riparian forest Riparian woodland |
| | | | | | | | | Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog & fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes Ione formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh & swamp Meadow & seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper Sonoran scrub Valley & foothill grassland |
| <i>Taxidea taxus</i> | American badger | None | None | S3 | G5 | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | |
| Upland Douglas Fir Forest | Upland Douglas Fir Forest | None | None | S3.1 | G4 | | | North coast coniferous forest |

| Scientific Name | Common Name | Federal List | CA List | State Rank | Global Rank | CNPS Plant List | Other Status | Habitats |
|------------------|---------------------------|--------------|---------|------------|-------------|-----------------|-----------------|---|
| Usnea longissima | Methuselah's beard lichen | None | None | S4 | G4 | 4.2 | BLM S-Sensitive | Broadleaved upland forest North coast coniferous forest Oldgrowth Redwood |

Mammals

American Badger (*Taxidea taxus*)

The American badger is known to occur in drier open areas of almost all shrub, forest, and herbaceous habitats with suitable breakable and crumbly soils. This species requires open, uncultivated ground, a sufficient source of rodents for food along, and friable soils to dig burrows.

Discussion: The specific habitat features required by American badger are not present on this project site, such as open uncultivated ground. The site is largely forested and open areas used for roads and rural infrastructure. American badger is not expected to occur on the project site.

Fisher – West Coast DPS (*Pekania pennant*)

The fisher requires extensive habitat areas with dense, mature, forest. It is known to use cavities, snags, logs and rocky areas for cover and denning. This species prefers a predominately closed canopy consisting of semi-large to large-tree trees within the old growth North Coast coniferous forest and deciduous-riparian plant communities. Fisher is documented in the Miranda and Piercy quadrangles.

Discussion: The property does not have old growth characteristics or tree specimens around the cultivation site. The parcel was subject to a forest fire in the 1970's. No direct or indirect impacts are expected to the fisher.

North American porcupine (*Erethizon dorsatum*)

North American porcupine is known to occur in the coniferous forest and mixed woodland habitat, including cismontane woodland; broadleaved upland forest; and the closed-cone, lower montane, North Coast, and upper montane coniferous forest types. This species is known from the Sierra Nevada, Cascade, and Coast mountain ranges, with a few dispersed observations in the Transverse range. It has been documented in the Garberville, Honeydew, Miranda, and Shubrick Peak quadrangles.

Discussion: The habitat on this parcel is mixed riparian forest and a tanbark oak/Douglas fir association; therefore; there is little potential for North American porcupine to occur on the project site. The residence has dogs that will also reduce the potential for North American porcupine to use this parcel.

Sonoma Tree Vole (*Arborimus Pomo*)

Sonoma tree vole is known to occur from Sonoma County to the Oregon border within the fog belt of the Northern California coast. It prefers old growth stands of forest. This species occurs in North Coast coniferous forest, Douglas-fir forest, redwood forest and montane hardwood-conifer forest. The vole predominately eats Douglas-fir needles, but will also feed on grand fir,

hemlock or spruce needles. It has been documented in the Briceland, Shelter Cove, and Bear Harbor quadrangles.

Discussion: Suitable habitat for this species does not occur on the project site. This portion of forest was subject to a forest fire in the 1970's and the trees are small and densely spaced. The forest is largely composed of dense tanbark oak and Douglas fir. Old growth characteristics do not occur within the project area; therefore, this species is not expected to occur. Sonoma tree vole will not be directly or indirectly impacted by the proposed project.

Townsend's big-eared Bat (*Corynorhinus townsendii*)

Townsend's big-eared bat prefers open areas where it hangs from roosts. It can hang from walls and ceilings, making these sites particularly sensitive to human disturbance. This bat occurs in many mesic habitats including meadow, seep, broadleaved upland forest, lower and upper montane coniferous forests, valley and foothill grasslands, riparian forest and woodland, and chaparral. The species also occurs in the following habitats that are not located in the vicinity of the project site: chenopod scrub, Great Basin grassland and scrub, Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub and Sonoran thorn woodland. There is one observance in the Honeydew quadrangle.

Discussion: The habitat for Townsend's big-eared bat occurs in the riparian area of the watercourses and this species has potential to occur on the property. The riparian habitat is a protected sensitive plant community and is not part of the project site. The riparian forest plant community will not be impacted by the project. This species may forage near the project site, if present.

Birds

Cooper's Hawk (*Accipiter cooperii*)

Cooper's hawk prefers mostly open woodland habitat or fragmented woodlands. Nest sites largely occur in riparian habitat with deciduous trees and live oaks, such as canyon bottoms on river flood-plains. It is known from cismontane woodland, riparian forest and woodland habitats, and upper montane coniferous forest.

Discussion: The Mattole River and unnamed tributary to Big Finley Creek riparian forest plant communities on the property are considered potential habitat for Cooper's hawk. These areas will not be impacted by the outdoor cannabis cultivation project.

Northern Spotted Owl (*Strix occidentalis caurina*)

This species is known to occur in unlogged, mature coniferous forest stands from southern British Columbia to Marin County. In the northern part of its range, Northern spotted owl (NSO) prefers old growth forests. In the southern part of its range, including California, this owl can also nest in a forest composed of second growth and old growth forests. The species nests in cavities or on platforms in large trees including abandoned nests of other species (USFWS

2011). Spotted owls form long-term pair bonds and remain in the same geographical areas year after year.

Critical habitat for the NSO is mapped by the United States Fish and Wildlife Service approximately 600 feet west of the project site where the habitat was not completely burned in the forest fire in the recent past. A western extension of this polygon of NSO critical habitat is located approximately 4,059 feet or 0.8 miles south of the project site and is associated with Nodding Creek. Another separate polygon of NSO critical habitat is located approximately 4,473 feet or 0.9 miles north of the project site at the confluence of the Mattole River and unnamed tributary to Big Finley Creek.

An NSO nest is documented in the CNDDB approximately 2,677 feet or 0.5 miles west and across the unnamed tributary to Big Finley Creek and a ridge away from the project site.

An NSO activity center is documented approximately 1.9 miles southeast of the project site on the other side of the Mattole River from the project site.

An NSO activity center is documented approximately 1.0 mile northwest of the project site and one ridge away from the project site. One NSO nest, located approximately 5,012 feet or 0.9 miles west of the project site, is associated with the NSO activity center. Numerous nest and pair sites are documented in association with this NSO activity center. The closest of these NSO pairs or the other observations are documented 1 mile west and 1.1 miles north of the project site. The NSO activity center and associated nest and pair observations are located in a different watershed from the project site.

A group of large trees that survived the forest fire remain across the canyon from the project site, approximately 1,000 feet or 0.3 mile from the project site. This grove of large trees has potential for NSO nesting.



Figure 10. Large trees spared from fire in distance - offsite

Discussion: The project site was burned the 1970's; therefore, large trees are not present on the property. An NSO activity center is documented to the west approximately 1 mile from the cultivation area. The CNDDDB documents this NSO activity center and NSO nests within 0.9 mile and 1 mile of the project site to the northwest in an adjacent watershed. The CNDDDB shows an NSO nest within 1.9 miles of the project site to the west, across the Mattole River. The NSO documentation to the east and west of the project site are in separate watersheds and are not in the line of sight or audible distance of the project site. The distance between the site and the NSO observations, and separation by ridges, do not allow for a line of site between the nest and the cultivation site or audio disturbance. The outdoor cannabis cultivation project will not result in adverse impacts to NSO.

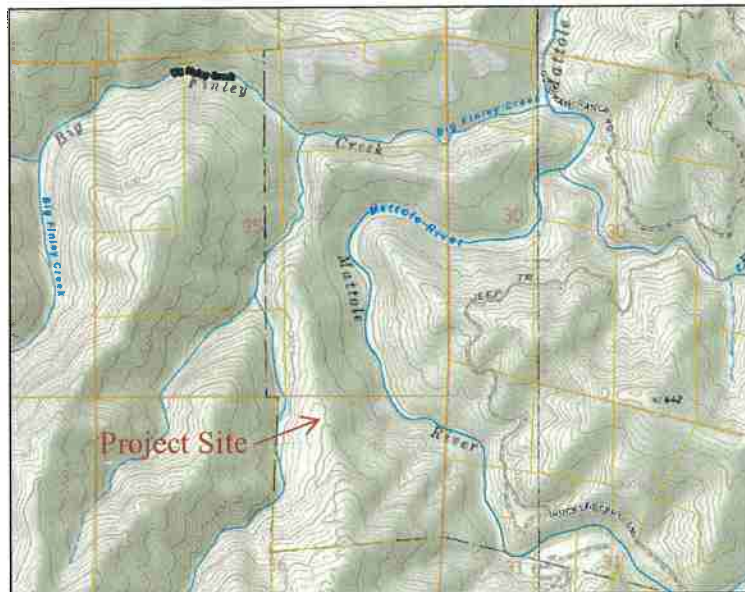


Figure 11. USGS Topographical Map Depicting Watercourses and Watersheds

Fish

The Mattole River is on the property boundary approximately 1,200 feet from the cannabis cultivation site. The Mattole River supports the following fish species, Southern Oregon/Northern California Coast coho salmon, fall-run Chinook salmon, summer-run steelhead trout and winter-run steelhead trout. The Mattole Basin Assessment Implementation Summary indicates that, historically, the southern reaches of the Mattole River exhibited poor pool quality and impaired depth for salmonids. (Downie, Scott T., C.W. Davenport, E. Dudik, F. Yee, and J. Clements, 2003).

Coho Salmon - southern Oregon/northern California ESU (*Oncorhynchus kisutch* pop. 2)

Coho salmon is listed as a threatened species by the State of California (CA) Endangered Species Act (ESA) and the federal ESA between the Oregon border and Punta Gorda, CA. The CNDDDB defines the habitat for this species as aquatic, Klamath/North coast flowing waters and Sacramento/San Joaquin flowing waters (CNDDDB, 2019). Populations have been documented in

the Briceland, Shelter Cove, Ettersburg, Shelter Cove, Honeydew, Shubrick Peak, and Bear Harbor quadrangles.

A population of Coho Salmon is documented at the confluence of Big Finley Creek and the Mattole River approximately 1.1 miles north of the project. A second population is documented approximately 1.0 mile from the project site in the Mattole River near the confluence of Eubank Creek. An unnamed tributary to Big Finley Creek runs through the parcel west of the project site.

Discussion: Habitat for the southern Oregon/northern California ESU coho salmon occurs in two portions of the Mattole River approximately 1 mile north of the cultivation site. One site includes the confluence of the Mattole River and Big Finley Creek. An unnamed tributary to Big Finley Creek passes through a portion of the property. Run-off and sediment from the project site is precluded from reaching the river due to the distance and the vegetative buffer. Run-off does not leave the project site and does not enter the creek or riparian habitat. No impacts to coho salmon are expected.

Summer-run steelhead trout (*Oncorhynchus mykiss irideus* pop. 36)

Summer-run steelhead trout lives in streams featuring shallow, cool, swift water exhibiting clean loose gravel for spawning and large summer pools. Aquatic habitat in Klamath/North Coast flowing waters and the Sacramento/San Joaquin flowing waters are listed as the suitable habitat locations for this fish. Summer-run steelhead trout lives in coastal streams from as far south as the Middle Fork Eel River, including the Mattole River that occurs in a corner of the property, but is not part of the project site. It has been documented in the Briceland, Shelter Cove, Ettersburg, Honeydew, and Honeydew quadrangles. A population is located in the Mattole River approximately 1,123 feet or 0.2 miles from the project site.

Discussion: The Mattole River is suitable habitat for summer-run steelhead trout. The riparian habitat and watercourse will not be directly or indirectly impacted by the cannabis cultivation project. No water will be diverted from the Mattole River or the unnamed tributary to Big Finley Creek for the cannabis cultivation project. A suitable vegetative buffer zone of approximately 346 feet borders the unnamed tributary to Big Finley Creek. The Mattole River is approximately 0.2 miles and 40 acres from the project. No sediment-laden water or sediment will be discharged into a watercourse or riparian habitat. The project site where the cannabis cultivation occurs does not include Mattole River or unnamed tributary to Big Finley Creek. No impacts to summer-run steelhead trout are expected.

Amphibians

Foothill yellow-legged frog (*Rana boylei*)

This aquatic frog occurs in partially-shaded, shallow streams and riffles with a rocky substrate. Foothill yellow-legged frog requires cobble-sized substrate for egg-laying. The species takes fifteen weeks to attain metamorphosis. It occurs in a variety of habitats including riparian forest, meadow, seep, cismontane woodland, lower montane coniferous forest, Klamath, North Coast

and Sacramento/San Joaquin watercourses, coastal scrub, chaparral. It has been documented in the Briceland, Shelter Cove, Shubrick Peak, Honeydew, and Ettersburg quadrangles. The observations are associated with the Mattole River and tributaries, various tributaries at the confluence of the Eel River, and other aquatic locations. One population is approximately 0.9 miles north of the project in Big Finley Creek at the confluence of the Mattole River.

Discussion: The Mattole River and the unnamed tributary Big Finley Creek contain habitat for foothill yellow-legged frog. Habitat could occur in the seeps on the parcel. The project site does not include the Mattole River or the seeps, and water will not be diverted from the unnamed tributary for the cannabis operation. Run-off from the cannabis cultivation operation does not leave the project site and does not enter the creek or riparian habitat. No impacts to foothill yellow-legged frog are expected.

Pacific Tailed Frog (*Ascaphus truei*)

Pacific tailed frog is found in aquatic habitat associated with perennial montane streams because tadpoles require a water temperature below 59 degrees Fahrenheit. The species occurs in flowing water within the following habitats: lower montane and North Coast coniferous forests (including Douglas fir and ponderosa pine), riparian forest, redwood forest and Klamath-North Coast flowing waters. It has been observed in the Honeydew, Shubrick Peak, and Bear Harbor quadrangles. Two observations were in the CDFW preserve south of Whitethorn in a tributary to the Mattole River.

Discussion: Habitat for Pacific tailed frog is present in the Mattole River and unnamed tributary to Big Finley Creek. The project site does not include the Mattole River and no water is diverted from the unnamed creek. Some water is rerouted through a pipe into a small home waterwheel hydroelectric system, but the water is diverted back into the creek. Run-off from the project site does not leave the project and does not enter the creek or riparian habitat. No impacts to this species are expected from the project.

Red-bellied newt (*Taricha rivularis*)

The species occurs in coastal drainages from Humboldt County south to Sonoma County, and inland to Lake County. Red-bellied newt occurs in the following habitats: North Coast coniferous forest, riparian forest, riparian woodland, redwood forest and broadleaf upland forest. This newt species lives in terrestrial habitats. However, the newt can migrate over one kilometer to breed in rocky substrate in streams with moderate flow. In moist environments, the adults are active at the soil surface; however, juvenile newts generally live underground. It occurs in the Briceland, Shubrick Peak, Shelter Cove, Honeydew and Ettersburg quadrangles.

Known observations are documented in the Mattole River and nearby tributaries. One known site is approximately 1 mile north of the project site in Eubank Creek and approximately 2.3 miles southeast in the Mattole River in the vicinity of Thorn Junction.

Discussion: Breeding aquatic habitat and terrestrial habitat for red-bellied newt occurs on the property associated with unnamed tributary to Big Finley Creek and the Mattole River.

However, the infrastructure for the cannabis cultivation operation already exists and no native vegetation will be removed for the cannabis project. The plants will be grown in existing planting boxes. Direct or indirect impacts to red-bellied newt are not expected to occur as a result of the project.

Southern Torrent Salamander (*Rhyacotriton variegatus*)

Southern Torrent Salamander is a CDFW species of special concern. The species specific aquatic habitat is defined as well-established cold, shaded, permanent streams and seepages. It occurs within the splash zone and among moss-covered rocks within trickling water portions of a watercourse. The species occurs in old growth forest. These forest types are coastal redwood, Douglas-fir, mixed conifer, montane riparian and montane hardwood-conifer forest types. It is known to occur in the Bear Harbor, Briceland, Shelter Cove, and Ettersburg quadrangles. One observation noted 20 or 30 years ago was located in Nodding Creek, the tributary adjacent to the parcel. A CNDDDB polygon depicting the general vicinity of known populations of Southern torrent salamander is approximately 0.2 miles south of the parcel.

Discussion: Southern torrent salamander has potential to occur in unnamed tributary to Big Finley Creek on the property, approximately 346 feet from the project site. The aquatic habitat characteristics required for this species occur in the riparian corridor on the project site associated with the Mattole River also. The riparian corridors are protected sensitive plant communities and no cultivation activities will occur within this habitat. No direct or impacts to this species are expected to occur.

Reptiles

Western pond turtle (*Emys marmorata*)

Western pond turtle is an aquatic species found in ponds, rivers, streams, wetlands, marshes and swamps. This species can occur in standing water, flowing water, and artificial ditches. This turtle is usually associated with aquatic vegetation. However, western pond turtle requires adjacent suitable upland habitat for basking sites, such as sandy banks or grassy open fields up to 1,640 feet from water for laying eggs. Occurrence is known to occur below the 6,000 foot elevation in the Klamath and North Coast region, the Sacramento and San Joaquin river region, and the south coast region. It has been documented in the Garberville, Miranda, and Ettersburg quadrangles.

Discussion: Western pond turtle could occur in the Mattole River and may use portion of the riparian corridor on the property. The Mattole River is approximately 0.2 miles from the project site and access is difficult. No direct or indirect impacts are expected to occur.

Insects

Common bumble bee (*Bombus occidentalis*)

This species requires blooming nectar plants and the species nests underground. Although once common and widespread, this species has declined significantly from central California to Canada, perhaps from disease. It has been documented in the Briceland, Garberville, and Miranda quadrangles.

Discussion: Suitable habitat for this species does not occur on the project site, significant direct and indirect impacts are not expected to occur.

Obscure bumble bee (*Bombus caliginosus*)

This bumble bee is found in coastal areas. Food plants include the genus of Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia. It has been documented in the Briceland, Shelter Cove, Garberville, Miranda, and Piercy quadrangles. A large polygon of general population occurrence is documented approximately 1 mile south of the project site.

Discussion: Few of the suitable plant species for obscure bumble bee were observed on the project site. The vegetation is largely non-native ruderal species contained in existing planting boxes. No significant impacts to this species are expected.

Mollusks

Mountain shoulderband (*Helminthoglypta arrosa monticola*)

Mountain shoulderband is known to occur on talus slopes and in the chaparral plant community. It is only known only from the King Range in the Honeydew quadrangle.

Discussion: Talus slopes and chaparral habitat do not occur on the project site. This species is not expected to occur on the project site.

SPECIAL STATUS PLANT SPECIES

Table 2 provides a list of special status plant species known to occur in the Shelter Cove Shelter Cove quadrangle and the eight quadrangles surrounding the Shelter Cove quadrangle listed by the CNPS.

Two of the eighteen special status plant species provided by the CNPS search feature are listed by the state or federal governments. Humboldt County milk-vetch is listed as endangered by the State of CA. Leafy reed grass is listed as rare in CA.

Table 2. California Native Plant Society's Special Status Plant List for the Shelter Cove Quadrangle & Surrounding Quadrangles

| Scientific Name | Common Name | Family | Lifeform | CRPR | CESA | FESA | State Rank | Global Rank | Blooming Period |
|--|------------------------------|---------------|--------------------------------|------|------|------|------------|-------------|-----------------------|
| <i>Antennaria suffrutescens</i> | evergreen everlasting | Asteraceae | perennial stoloniferous herb | 4.3 | None | None | S3 | G4 | Jan-Jul |
| <i>Calamagrostis foliosa</i> | leafy reed grass | Poaceae | perennial herb | 4.2 | CR | None | S3 | G3 | May-Sep |
| <i>Castilleja litoralis</i> | Oregon coast paintbrush | Orobanchaceae | perennial herb (hemiparasitic) | 2B.2 | None | None | S3 | G3 | Jun-Jul |
| <i>Castilleja mendocinensis</i> | Mendocino Coast paintbrush | Orobanchaceae | perennial herb (hemiparasitic) | 1B.2 | None | None | S2 | G2 | Apr-Aug |
| <i>Ceanothus gloriosus</i> | glory brush | Rhamnaceae | perennial evergreen shrub | 4.3 | None | None | S4 | G4T4 | Mar-Jun(Aug) |
| <i>Clarkia amoena</i> ssp. <i>whitneyi</i> | Whitney's farewell-to-spring | Onagraceae | annual herb | 1B.1 | None | None | S1 | G5T1 | Jun-Aug |
| <i>Coptis laciniata</i> | Oregon goldthread | Ranunculaceae | perennial rhizomatous herb | 4.2 | None | None | S3? | G4? | (Feb)Mar-May(Sep-Nov) |
| <i>Erythronium oregonum</i> | giant fawn lily | Liliaceae | perennial bulbiferous herb | 2B.2 | None | None | S2 | G4G5 | Mar-Jun(Jul) |
| <i>Erythronium revolutum</i> | coast fawn lily | Liliaceae | perennial bulbiferous herb | 2B.2 | None | None | S3 | G4G5 | Mar-Jul(Aug) |
| <i>Gilia capitata</i> ssp. <i>Pacifica</i> | Pacific gilia | Polemoniaceae | annual herb | 1B.2 | None | None | S2 | G5T3 | Apr-Aug |
| <i>Lasthenia californica</i> ssp. <i>Macrantha</i> | perennial goldfields | Asteraceae | perennial herb | 1B.2 | None | None | S2 | G3T2 | Jan-Nov |
| <i>Lathyrus palustris</i> | marsh pea | Fabaceae | perennial herb | 2B.2 | None | None | S2 | G5 | Mar-Aug |
| <i>Lilium rubescens</i> | redwood lily | Liliaceae | perennial bulbiferous herb | 4.2 | None | None | S3 | G3 | Apr-Aug(Sep) |
| <i>Mitellastrum caulescens</i> | leafy-stemmed mitrewort | Saxifragaceae | perennial rhizomatous herb | 4.2 | None | None | S4 | G5 | (Mar)Apr-Oct |
| <i>Montia howellii</i> | Howell's montia | Montiaceae | annual herb | 2B.2 | None | None | S2 | G3G4 | (Jan-Feb)Mar-May |
| <i>Piperia candida</i> | white-flowered rein orchid | Orchidaceae | perennial herb | 1B.2 | None | None | S3 | G3 | (Mar)May-Sep |
| <i>Sidalcea malachroides</i> | maple-leaved checkerbloom | Malvaceae | perennial herb | 4.2 | None | None | S3 | G3 | (Mar)Apr-Aug |
| <i>Usnea longissima</i> | Methuselah's beard lichen | Parmeliaceae | fruticose lichen (epiphytic) | 4.2 | None | None | S4 | G4 | |

Dicots

Evergreen everlasting (*Antennaria suffrutescens*)

Evergreen everlasting is known to grow in serpentine soils within the lower montane coniferous forest. The elevation ranges from 1,640 feet to 5,250 feet. It has been observed in the Shelter Cove quadrangle in the higher elevation area of the King Range.

Discussion: Serpentine soils and a coniferous forest with a suitable understory composition do not occur on the project site.

Glory brush (*Ceanothus gloriosus* var. *exaltatus*)

This perennial species grows in the chaparral plant community. The elevation ranges from 95 feet to 4,000 feet. Glory bush is known to occur in the Briceland, Bear Harbor, and Shelter Cove quadrangles.

Discussion: Suitable chaparral habitat does not occur on the project site. This species is not expected to occur.

Howell's montia (*Montia howellii*)

Howell's montia was thought to be extinct until it was re-discovered in timber lands by Clare Golec in 1999. The species occurs in wetlands, meadows, seeps and vernal pools in open areas within North Coast coniferous forest habitat from sea level to 2,740 feet. This species prefers vernal wet sites and can grow in compacted soil. It can occur in depressions along dirt roads that mimic vernal pools. It has been observed in the Briceland and Miranda quadrangles.

Discussion: The road providing ingress and egress is used regularly by residential properties and the traffic is sufficient such that this species could not be sustained. The project site itself is a developed rural residential property and the cannabis will be grown in existing planting boxes. There is no potential for this species to occur on the project site.

Humboldt County milk-vetch (*Astragalus agnicidus*)

This State endangered plant species, once thought to be extinct, was rediscovered in openings resulting from timber harvest. The plant is known to occur in openings disturbed areas and potentially along roadsides in partially timbered forest lands. It also occurs on south-facing slopes and ridgelines from 390 feet to 2,625 feet in elevation. The plant communities associated with this species included broad-leaved upland forest and North Coast coniferous forest. It has been rediscovered in the Miranda quadrangle.

Discussion: This species grows where timber harvest has removed the understory suppressing tree cover. An *Astragalus* that looks similar to Humboldt County milk-vetch was observed on the project site, Bald Mountain milk-vetch (*Astragalus imbricatus*). Among characteristics that separate these two *Astragalus* species, the Bald Mountain milk vetch is relatively glabrous and

the Humboldt County milk-vetch is hairy, and the leaf features are different. Humboldt County milk-vetch was not observed during the reconnaissance-level survey and is not expected to occur in the project site envelope.

Leafy-stemmed miterwort (*Mitellastra caulescens*)

Leafy-stemmed miterwort grows in mesic areas including meadows and seeps in the broad-leaved upland forest, lower montane forest and North Coast coniferous forest. The elevation ranges from 15 feet to 5,575 feet in elevation. It is known to occur in many northern California quadrangles, including the Bear Harbor quadrangle.

Discussion: This species was not observed during the field visit. Leafy-stemmed miterwort has potential to occur in mesic areas on the property along the watercourses, but suitable habitat for this species does not occur within the cannabis cultivation project site. All facilities are existing structures and additional disturbance is not expected. No impacts to this species are expected.

Maple-leaved checkerbloom (*Sidalcea malachroides*)

Maple-leaved checkerbloom grows in coastal woodlands and openings; often associated with soil disturbance. The species is associated with a variety of plant communities including coastal prairie, coastal scrub, broad-leaved upland forest, North Coast coniferous forest, and riparian forest. Elevations range from 12 feet to 2,295 feet. It occurs in the Bear Harbor and surrounding quadrangles.

Discussion: This species was not observed during the field visit. Maple-leaved checkerbloom has potential to occur on the property, but was not observed within the project site envelope.

Marsh pea (*Lathyrus palustris*)

Marsh pea grows in mesic areas such as marshes, swamps, bogs and fens. It can occur in the coastal prairie, lower montane coniferous forest, North coast coniferous forest and the coastal scrub plant communities. The elevation ranges from sea level to 300 feet. It has been documented in the Shelter Cove quadrangle.

Discussion: The suitable marsh, swamp, bog and fen habitat required for this species does not occur on the project site or property and is not expected to occur.

Mendocino coast paintbrush (*Castilleja mendocinensis*)

Mendocino coast paintbrush is a hemi-parasitic plant that occurs in the closed-cone coniferous forest, coastal dunes, coastal prairie, coastal scrub, and coastal bluff scrub plant communities. The elevation ranges from sea level to 525 feet. It occurs in the Bear Harbor quadrangle.

Discussion: The habitat for this species does not occur on the project site and this species will not be impacted by the proposed project.

Oregon coast paintbrush (*Castilleja litoralis*)

Oregon coast paintbrush is a seaside associated species that grows in sandy soils in the coastal dunes, coastal scrub, and coastal bluff scrub plant communities. It is known to occur from 45 feet to 330 feet in elevation. This species has been observed west of the project site in the Shelter Cove and Bear Harbor quadrangles.

Discussion: The coastal sandy soil habitat feature does not occur on the project site. No impacts to this species are expected.

Oregon goldenthread (*Coptis laciniata*)

Oregon goldenthread grows in meadows, wetlands, seeps and streambanks in the North Coast coniferous forest from sea level to 3,280 feet. It is known to occur in many quadrangles, including the Briceland quadrangle.

Discussion: Streambank habitat is present along the Mattole River and the unnamed tributary located within the property boundary, but not the project site where the cannabis cultivation will occur. The meadow, wetland and seep habitat required for this species does not occur on the project site. No impacts are expected to occur.

The riparian habitat supporting this species is a sensitive plant community and will not be disturbed or adversely impacted by any future proposed change or expansion of the project. If present along the streambank on the property, this species will not be impacted by the cannabis cultivation project.

Pacific gilia (*Gilia capitata* ssp. *pacifica*)

Pacific gilia is known to occur in valley and foothill grassland, coastal prairie, coastal bluff scrub, and openings within the chaparral plant community from 15 feet to 5,465 feet in elevation. It has been documented in Briceland, Shelter Cove, Shubrick Peak and Bear Harbor quadrangles. A population is known to occur in a grassy opening approximately 1.2 miles south west of the project site along Paradise Ridge Road.

Discussion: Grassland, scrub and chaparral habitat does not occur on the project site; therefore, this species is not expected to occur. No impacts to this species will result from this project.

Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)

Perennial goldfields grow in the coastal dune, coastal scrub, and coastal bluff scrub plant communities. It is known to occur from 15 feet to 1,705 feet in elevation. It is known to occur along the coast in the Shelter Cove quadrangle.

Discussion: Habitat for perennial goldfields does not occur on the project site; therefore, this species will not be impacted by the proposed project.

Whitney's farewell-to-spring (*Clarkia amoena* ssp. *whitneyi*)

Whitney's farewell-to-spring grows in the coastal bluff scrub and coastal scrub plant communities in elevations ranging from 30 feet to 330 feet. It is known to occur in the Shelter Cove quadrangle.

Discussion: This is a coastal species and is not expected to occur inland where the project site is located. No impacts will occur.

Monocots

Coast fawn lily (*Erythronium revolutum*)

This species grows in wetlands, bogs and fens in the broadleaf upland forest and North Coast coniferous forest. It is known to occur in mesic areas along streambanks from sea level to 5,250 feet in elevation. This species occurs in the Ettersburg, Miranda, Piercy, and Garberville quadrangles.

Discussion: The property has seeps and suitable streambank habitat to support this species. However, the Mattole River, unnamed tributary, seeps, and associated riparian habitat, are not part of the cannabis cultivation project site. The riparian habitat that supports coast fawn lily is a sensitive plant community and will not be disturbed or adversely impacted by any future proposed change or expansion of the project. If present along the streambank on the property, this species will not be impacted by the cannabis cultivation project.

Giant fawn lily (*Erythronium oregonum*)

Giant fawn lily is known to occur in seeps, meadows and openings in the cismontane woodland from approximately 325 feet to 3,775 feet in elevation. This sensitive plant can occur in rocky substrates and serpentine soils. The species is documented in the Ettersburg quadrangle. The CNPS indicates the taxonomy of this fawn lily is still in question. Although the California populations are known to be separated geographically; giant fawn lily could be considered a white form of coast fawn lily.

Discussion: The habitat for this species does not likely occur on this project site due to the lack of woodland habitat and rocky substrates suitable for this species.

Leafy reed grass (*Calamagrostis foliosa*)

Leafy reed grass grows on ocean-facing bluffs and rocky cliffs in the coastal bluff scrub and North Coast coniferous forest plant communities. This is listed as a rare plant in CA. The elevation ranges from sea level to 4,005 feet. This species occurs along the coast in the Shelter Cove Shubrick Peak, and Bear Harbor quadrangles.

Discussion: The native habitat on the property is mixed riparian forest, seep, and a dense mixed evergreen forest dominated by small tanbark oak and Douglas fir; therefore, the suitable habitat for this rare species does not occur on this project site. No impacts are expected to occur.

Redwood lily (*Lilium rubescens*)

Redwood lily occurs in a variety of habitats including chaparral, broad-leaf upland forest, lower coniferous forest, montane coniferous forest, and North Coast coniferous forest. It is sometimes associated with serpentine soils. This species has been observed along roads. The elevation ranges from 95 feet to 6,265 feet. There are known locations in the Piercy and Bear Harbor quadrangles.

Discussion: Habitat for this species, North Coast coniferous forest, does not occur on the project site. Redwood lily was not observed on the project site during the field visit and is not expected to occur on the project site.

White-flowered rein orchid (*Piperia candida*)

This orchid grows in forest duff, mossy banks, rock outcrops, and swampy soils. It is known to occur in serpentine soils. Habitats include the broadleaf upland, lower montane coniferous forest, and North Coast coniferous forest. Elevations range from 95 feet to 4,300 feet. It is known from many quadrangles in northern California including the Honeydew, Briceland, Miranda and Piercy quadrangles.

Discussion: White-flowered rein orchid is not expected to occur on the project site due to the lack of swampy soils, rocky outcrops and mossy banks associated with serpentine soils.

Lichen

Methuselah's beard lichen (*Usnea longissimi*)

This lichen grows in the redwood forest on tree branches including big leaf maple, oaks, ash, Douglas-fir, and bay. It usually grows on old growth hardwoods and conifers. The elevation ranges from 160 feet to 4,790 feet. It has been observed in the Shubrick Peak, Honeydew, Bear Harbor and Shelter Cove quadrangles.

Discussion: The suitable overstory habitat for Methuselah's beard lichen does not occur on the project site. The species was not observed on the project site during the field survey and is not expected to occur.

POTENTIAL IMPACTS

No special status plant and animal species were observed on the project site. There is potential habitat for some species to occur on the property; however, if present, these will not be directly or indirectly impacted by the small, outdoor cultivation project. The outdoor cultivation site consists of existing planting boxes on existing terraces associated with a home and rural

residential infrastructure and facilities. The only vegetation removed for the cultivation project will be non-native ruderal vegetation or weedy native species growing in existing planting boxes. The riparian corridors associated with the watercourses and seeps will be protected and will remain undisturbed. The property has been in use for over twenty years as a rural residence and garden. The presence of people and infrastructure for a home and a small outdoor cannabis cultivation operation is not likely to adversely impact sensitive species or sensitive plant communities.

Northern Spotted Owl

The resource guidance, Estimating the effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (NSO Guidance) was used to evaluate the potential indirect impacts to NSO. There are no direct impacts to this species because habitat and trees will not be removed as part of the project. The cultivation is an outdoor growing operation that will not use excessive lighting at night or generate excessive noise. The home and cultivation site are solar powered; however, the home periodically uses a small, 3,000 watt back-up generator contained in a structure.

The cannabis cultivation is confined to a single envelope of operation, including existing roads, buildings and an existing outdoor cultivation site. Potential indirect impacts to NSO are not expected to occur from limited vehicle use noise on access roads. The residence has been in use for many decades.

The FWS guidance, the Northern Spotted Owl Sound and Visual Harassment Decision Support Tool was used to determine that scenario 2 is best scenario applicable to this project site, described as low to very low levels of sound associated with urban and rural residential activities such as small power tools, light vehicular traffic moving at slow speeds and recreational actions. The reality is that the level of noise will not change or be elevated above the noise level occurring on the project site for over twenty years. The noise anticipated from the project site is expected to be minimal. The ambient level of noise for this project is not expected to increase much above current level. This is an existing home with a former cannabis garden in the same location. The infrastructure is an existing outdoor garden facility. No additional light impacts or audio impacts will be generated as a result of this project above normal use.

One factor under scenario 2 is the visual line-of sight disturbance distance for nests. At this site, the known NSO Activity centers and nests in the vicinity are documented in the CNDDDB at approximately 0.9 miles and 1 mile from the edge of the cultivation. No visual impacts will occur.

A grove of large trees that survived the fire is located across the canyon approximately 1,000 feet from the project site. This grove should will not receive adverse impacts from any light source emanating from the outdoor grow site that only uses minimal lighting for propagation in a temporary greenhouse structure. Audio impacts will not occur.

Cooper's hawk

The site will not use the riparian habitats where Cooper's hawk nesting could occur. The project will avoid use of rodenticides. If the project does not expand and no trees are removed, direct impacts to Cooper's hawk will not occur. Recommendations implemented for Northern Spotted Owl will also mitigate potential indirect impacts to Cooper's hawk from the project.

Migratory Birds

Cultivation activities on the project site are not expected to directly or indirectly impact nesting or sensitive birds.

Fish and Aquatic Resources

The cultivation operation will not remove any riparian vegetation or draft water from the Mattole River or the unnamed tributary to Big Finley Creek. Rainwater catchment will be used for the outdoor cultivation irrigation. The cannabis cultivation operations will not have adverse direct or indirect impacts to fish or aquatic resources.

Bat

Townsend's big-eared bat may forage over the project site if present in the riparian forest habitat. Vegetation, other than weeds in the planting beds, will not be removed for the project; therefore, habitat for roosting and foraging will not be adversely impacted. The project site is an existing facility and a residence has been located on the project site for decades.

Red-bellied Newt, Pacific tailed frog, Southern Torrent Salamander, Western Pond Turtle

The project is an existing facility and no additional construction, grading or vegetation removal will occur. Although red-bellied newt, Pacific tailed frog, southern torrent salamander and Western pond turtle could exist in the riparian corridors, no direct and indirect impacts are expected to occur.

Sensitive Plant Resources

No sensitive plant species were observed on the project site. There is potential habitat for the following species identified during the reconnaissance-level survey with potential to occur in the unused portions of the property in the riparian corridor. These species are hoary gooseberry, leafy-stemmed miterwort, coast fawn lily and maple-leaved checkerbloom. These species will not be directly or indirectly impacted by the cultivation project; however if the project expands beyond the current footprint, these species should be considered

Pacific gilia occurs in the vicinity and, although suitable habitat was not observed, this species should be considered during any expansion of the project.

RECOMMENDATIONS

Sensitive Wildlife Species General Recommendations

1. All fertilizers, pesticides, herbicides and other cultivation-related products shall be stored in a secure location on the property to prevent access to wildlife and runoff into watercourses.
2. No rodenticides shall be used.
3. If the current footprint of the cannabis cultivation expands beyond the current project envelope, or the watercourse is used for water diversion, the proposed areas of vegetation clearing, grading or water diversion will be surveyed to determine presence or absence of species, and use, such as nesting, breeding, foraging and denning. The following animal species have potential to use the habitat surrounding the project site, particularly the riparian and aquatic habitat. These are Cooper's hawk, red-bellied newt, Pacific tailed frog, southern torrent salamander, and western pond turtle.
4. Outside lighting used will be the least intensity possible. Night lights shall face downward to avoid adverse impacts to wildlife.

Northern Spotted Owl

1. No light shall emanate from the outdoor growing operations from sunset to sunrise to avoid adverse impacts from excessive light at night.
2. The energy source is solar power and a contained 3,000 watt back-up generator for home use; therefore, noise emanating from the outdoor growing cultivation operation will remain under the decibel limits set by the USFWS NSO Guidance. Noise shall not be increased above the current sound level of the operation for the home and outdoor cultivation.
3. No trees shall be cut or vegetation removed for the project beyond the current project envelope. Any tree or vegetation removal, or expansion of the project, will not occur without a survey to determine the presence or absence of NSO or Cooper's hawk nesting.
4. Operations conducted between February 1 and August 9 will not result in direct impacts to the NSO. If any operations with the potential to disturb this owl are proposed for the critical nesting period, focused NSO should be conducted per specifications outlined in the Protocol For Surveying Proposed Management Activities That May Impact Northern Spotted Owls (USFWS, 2010) and Humboldt County guidance.

Migratory Birds

The outdoor cultivation planting boxes are an existing facility; therefore, shrub or overstory vegetation will not be removed as part of the project. However, if expansion of the project is proposed in the future, it is recommended to conduct nesting bird surveys, generally March 1 – August 31.

Red-bellied Newt, Pacific Tailed Frog, Southern Torrent Salamander, Western Pond Turtle

If the project footprint expands, the area of disturbance will be surveyed for the presence or absence of red-bellied newt, Pacific tailed frog, southern torrent salamander and western pond turtle prior to construction. The recommendations for each of these species are outlined in the Draft EIR.

Sensitive Plant Species

If the current footprint of the cannabis cultivation expands, the proposed area of vegetation clearing and grading will be surveyed to determine the presence or absence sensitive plant species with potential to occur on the new project site. Focused rare plant surveys should be conducted by a qualified botanist during the prime blooming period and within suitable habitat locations for the species identified in the impact section, above.

Invasive Species Management

The recommendations from the California Invasive Plant Council (Cal-IPC) include mechanical and chemical removal activities for French broom. These methods were tested in the Jackson State Forest in Mendocino County. Due the presence of the riparian corridor on this parcel, mechanical means of removal are recommended. The use of chemical methods of removal is not recommended for this parcel.

Mechanical removal could include the use of weed wrenches that pull the mature plants out from the root, cutting, and digging with various tools. After initial removal of the mature plants, continual manual removal of the seedlings shall be implemented to prevent re-introduction.

APPENDIX A

Plant List: Jesse Cabral Cannabis Cultivation Project Site Biological Survey, APN 108-071-003

Species are arranged by family according to The Jepson Manual (James C. Hickman, 1993) and contains all the plant species observed during a survey conducted in August 2019. Most of the species are identified to species, but some could only be identified to genus.

| Family | Species Name | Common Name |
|---------------|--|--------------------|
| Aceraceae | | |
| | <i>Acer macrophyllum</i> | big-leaf maple |
| | | |
| Anacardiaceae | | |
| | <i>Toxicodendron diversilobum</i> | poison oak |
| | | |
| Apiaceae | | |
| | <i>Anthriscus caucalis</i> | bur-chervil |
| | <i>Sanicula crassicaulis</i> | sanicle |
| | | |
| Araliaceae | | |
| | <i>Aralia californica</i> | spikenard |
| | | |
| Asteraceae | | |
| | <i>Achillea millefolium</i> | yarrow (planted) |
| | <i>Baccharis pilularis</i> | coyote brush |
| | <i>Carduus pycnocephalus</i> | Italian thistle |
| | <i>Cirsium</i> sp. | thistle |
| | <i>Cirsium vulgare</i> | bull thistle |
| | <i>Gnaphalium luteo-album</i> | cudweed |
| | <i>Hieracium albiflorum</i> | white hawkweed |
| | <i>Hypochaeris</i> sp. | cat's ear |
| | <i>Madia gracilis</i> | common madia |
| | <i>Petasites frigidus</i> var. <i>palmatus</i> | coltsfoot |
| | <i>Senecio</i> sp. | ragwort |
| | <i>Sonchus oleraceus</i> | common sow thistle |
| | | |
| Betulaceae | | |
| | <i>Alnus rubra</i> | red alder |
| | <i>Corylus cornuta</i> var. <i>californica</i> | hazelnut |
| | | |
| Blechnaceae | | |
| | <i>Blachnum spicant</i> | deer fern |
| | <i>Woodwardia fimbriata</i> | western chain fern |
| | | |

| Family | Species Name | Common Name |
|------------------|---|-------------------------|
| Caprifoliaceae | | |
| | <i>Lonicera hispidula</i> | hairy honeysuckle |
| | <i>Symphoricarpos mollis</i> | creeping snowberry |
| | | |
| Caryophyllaceae | | |
| | <i>Stellaria media</i> | chickweed |
| | | |
| Cornaceae | | |
| | <i>Cornus nuttallii</i> | mountain dogwood |
| | | |
| Cyperaceae | | |
| | <i>Carex</i> sp. | sedge |
| | <i>Cyperus esculentus</i> | nutgrass |
| | | |
| Dennstaedtiaceae | | |
| | <i>Pteridium aquilinum</i> var. <i>pubescens</i> | bracken fern |
| | | |
| Dryopteridaceae | | |
| | <i>Polystichum munitum</i> | western sword fern |
| | | |
| Equisetaceae | | |
| | <i>Equisetum arvense</i> | common horsetail |
| | | |
| Ericaceae | | |
| | <i>Arctostaphylos columbiana</i> | hairy manzanita |
| | <i>Arbutus menziesii</i> | madrone |
| | <i>Gaultheria shallon</i> | salal |
| | <i>Vaccinium ovatum</i> | California huckleberry |
| | | |
| Euphorbiaceae | | |
| | <i>Eremocarpus setigerus</i> | turkey mullein |
| | | |
| Fabaceae | | |
| | <i>Astragalus imbricatus</i> | Bald Mountain milkvetch |
| | <i>Genista monspessulana</i> | French broom |
| | <i>Lotus micranthus</i> | miniature lotus |
| | <i>Lupinus</i> sp. | lupine |
| | <i>Thermopsis macrophylla</i> var. <i>macrophylla</i> | false-lupine |
| | <i>Trifolium</i> sp. | clover |
| | <i>Vicia</i> sp. | vetch |
| | | |
| Fagaceae | | |

| Family | Species Name | Common Name |
|-----------------|--|-------------------|
| | <i>Chrysolepsis chrysophylla</i> | giant chinquapin |
| | <i>Lithocarpus densiflorus</i> | tanbark oak |
| | <i>Quercus wislizeni</i> var. <i>wislizeni</i> | interior live oak |
| | | |
| Geraniaceae | | |
| | <i>Erodium botrys</i> | filaree |
| | | |
| Grossulariaceae | | |
| | <i>Grossularia</i> sp. | gooseberry |
| | | |
| Hypericaceae | | |
| | <i>Hypericum perforatum</i> | St. John's wort |
| | | |
| Iridaceae | | |
| | <i>Iris douglasiana</i> | Douglas Iris |
| | | |
| Juncaeae | | |
| | <i>Juncus balticus</i> | Baltic rush |
| | | |
| Lamiaceae | | |
| | <i>Mentha pulegium</i> | pennyroyal |
| | <i>Stachys ajugoides</i> var. <i>ajugoides</i> | hedge nettle |
| | | |
| Lauraceae | | |
| | <i>Umbellularia californica</i> | California bay |
| | | |
| Malvaceae | | |
| | <i>Malva parviflora</i> | Mallow |
| | | |
| Myricaceae | | |
| | <i>Myrica californica</i> | wax myrtle |
| | | |
| Oleaceae | | |
| | <i>Fraxinus</i> sp. | ash |
| | | |
| Onagraceae | | |
| | <i>Epilobium</i> sp. | willow herb |
| | | |
| Philadelphaceae | | |
| | <i>Whipplea modesta</i> | yerba de selva |
| | | |
| Pinaceae | | |
| | <i>Pseudotsuga menziesii</i> var. <i>menziesii</i> | Douglas fir |

| Family | Species Name | Common Name |
|----------------|--------------------------------|----------------------------|
| Plantaginaceae | | |
| | <i>Plantago lanceolata</i> | English plantain |
| Poaceae | | |
| | <i>Agrostis sp.</i> | bentgrass |
| | <i>Avena sp.</i> | wild oat |
| | <i>Briza maxima</i> | rattlesnake grass |
| | <i>Bromus diandrus</i> | ripgut brome |
| | <i>Cynosurus echinatus</i> | bristly dogtail grass |
| | <i>Elymus glaucus</i> | blue wild rye |
| | <i>Elymus elymoides</i> | squirreltail |
| | <i>Festuca sp.</i> | festuca |
| | <i>Holcus lanatus</i> | velvet grass |
| | <i>Lolium perenne</i> | Italian rye grass |
| | <i>Mellica sp.</i> | Mellica |
| | <i>Phalaris sp.</i> | canary grass |
| | <i>Polypogon monspeliensis</i> | rabbit's foot grass |
| Polygonaceae | | |
| | <i>Polygonum sp.</i> | smartweed |
| | <i>Polygonum arenastrum</i> | common knotweed |
| Primulaceae | | |
| | <i>Anagallis arvensis</i> | scarlet pimpernel |
| Pteridiaceae | | |
| | <i>Adiantum jordanii</i> | California maidenhair fern |
| Rhamnaceae | | |
| | <i>Ceanothus cordulatus</i> | mountain whitethorn |
| | <i>Ceanothus velutinus</i> | snowbrush ceanothus |
| Rosaceae | | |
| | <i>Fragaria vesca</i> | strawberry |
| | <i>Holodiscus discolor</i> | ocean spray |
| | <i>Rosa gymnocarpa</i> | wood rose |
| | <i>Rubus discolor</i> | Himalayan blackberry |
| | <i>Rubus leucodermis</i> | blackcap raspberry |
| | <i>Rubus parviflorus</i> | thimbleberry |
| | <i>Rubus ursinus</i> | California Blackberry |

| Family | Species Name | Common Name |
|------------------|-----------------------------|----------------|
| Rubiaceae | | |
| | <i>Galium sp.</i> | bedstraw |
| | | |
| Salicaceae | | |
| | <i>Salix sp.</i> | willow |
| | | |
| Scrophulariaceae | | |
| | <i>Digitalis purpurea</i> | foxglove |
| | | |
| Taxodiaceae | | |
| | <i>Sequoia sempervirens</i> | coast redwood |
| | | |
| Urticaceae | | |
| | <i>Hesperocnide tenella</i> | western nettle |

APPENDIX B

State, Federal and Other Listings

State of California Listing

Endangered – A native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. Any species determined by the commission as "endangered" on or before January 1, 1985, is an "endangered species."

Threatened – A native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management. Any animal determined by the commission as "rare" on or before January 1, 1985, is a "threatened species."

Candidate – A native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.

Species of Special Concern

A species of special concern is a species, subspecies, or distinct populations of animals native to California that currently satisfies one or more of the following:

- (1) extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- (2) listed as threatened or endangered under the federal endangered species act (ES), not the state;
- (3) meets the California endangered species act (CESA) definition of threatened or endangered, but has not formally been listed;
- (4) experiencing, or once experienced, serious population decline or range retraction, if continued or resumed, could qualify the species for threatened or endangered status;
- (5) naturally small populations exhibiting high susceptibility to risk from any factor that could lead to a decline that could qualify the species for threatened or endangered status.

Fully Protected Animals

Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. The list was prepared in the 1960's for species in threat of extinction; however, these species may also be listed.

California Natural Diversity Data Base (CNDDB) Rankings

The two CNDDB rankings indicate the overall status of a species throughout its state and global range. The global and state rankings are two-part scores that include a letter plus a number score. These are threat and trend factors.

State Ranking

- S1 = Critically Imperiled - Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2 = Imperiled - Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3 = Vulnerable - Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4 = Apparently Secure – Uncommon, but not rare in the state; some cause for long-term concern due to declines or other factors.
- S5 = Secure - Common, widespread, and abundant in the state.

Global Ranking

- G1 = Critically Imperiled - At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 = Imperiled - At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3 = Vulnerable - At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4 = Apparently Secure – Uncommon, but not rare; some cause for long-term concern due to declines or other factors.
- G5 = Secure - Common; widespread and abundant.

Federal Listing

All species of plants and animals are eligible for a federal listing of endangered or threatened. Insect pests are excluded.

Endangered = a species is in danger of extinction throughout all or a significant portion of its range.

Threatened = a species is likely to become endangered within the foreseeable future.

Candidate Species = plants and animals that have been studied and the USFWS determined a species should be proposed for addition to the endangered and threatened species list. These species have formerly been referred to as category 1 candidate species.

The Federal Register, February 28, 1996, page 7597, states new rules for candidate species: "those species for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list but issuance of the proposed rule is precluded."

California Native Plant Society (CNPS) Listings and Threat Ranking

The CNPS list combines the rare plant rank and the threat rank to determine the status of the species within California and the level of threat. These are provided in separate tables, below.

CNPS Rare Plant Rank and Definition

| Rare Plant Rank | Title | Definition | Application |
|-----------------|---|---|---|
| 1A | Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere | Presumed extirpated or extinct. In CA, not seen or collected in the wild in for many years. A plant is extinct if it no longer occurs anywhere. An extirpated was eliminated from California, but may still occur elsewhere in the range. | All plants with a listing of Rank 1A meet the definitions of the California Endangered Species Act and are eligible for state listing. |
| 1B | Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere | Rare throughout the range. The majority are endemic to CA. Many of these plant populations declined significantly over the past 100 years. | All plants with a listing of Rank 1A meet the definitions of the California Endangered Species Act and are eligible for state listing. |
| 2A | Plants Presumed Extirpated in California, But Common Elsewhere | Presumed extirpated because they have not been observed or documented in California for many years. These are plants presumed extirpated in California, but are common elsewhere in the range. | All plants with a listing of Rank 1A meet the definitions of the California Endangered Species Act and are eligible for state listing. |
| 3 | Plants About Which More Information is Needed - A Review List | Plants for which the CNPS lacks enough specific information to assign them to one of the other ranks or to reject them. Nearly all plants with Rank 3 are taxonomically | Many of these plants with a listing of Rank 3 meet the definitions of the California Endangered Species Act and are eligible for state listing. |

| Rare Plant Rank | Title | Definition | Application |
|-----------------|---|---|--|
| 4 | Plants of Limited Distribution - A Watch List | <p>problematic. CNPS provides information describing where clarification is needed.</p> <p>Limited distribution or infrequent throughout a broader area in California. Population status should be monitored regularly.</p> | Some of these plants meet the definitions of CESA and are eligible for state listing. However, many are significant locally in areas where: (1) populations are at the periphery of the range, (2) it is especially uncommon, (3) the taxon has significant removal, and (4) populations have unusual morphology or occur on unusual substrates. |

CNPS Threat Rank and Definition

| Threat Rank | Definition |
|-------------|--|
| 0.1 | Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat) |
| 0.2 | Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) |
| 0.3 | Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known) |

State Regulations

California Endangered Species Act

Under CESA, it is unlawful to “take” any species listed as rare, threatened, or endangered. Take under CESA means to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA take provisions apply to fish, wildlife, and plant species. Take may result whenever activities occur in areas that support a listed species. Consultation with CDFW is required if a project would result in “take” of a listed species.

California Fish and Game Code, Section 1600

Sections 1600 of the California Fish and Game Code states that, “An entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake....”

Where a project may involve a watercourse or water diversion, the entity is required to submit a notification to the CDFW, and the CDFW subsequently issues a streambed alteration agreement, if warranted.

Protection of Birds, Nests, and Raptors

California Fish and Game Code (FGC) Section 3503

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird.

FGC Section 3503.5

Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. An incidental take permit is not an option for the take of raptors.

FGC Section 3513

Section 3513 states that it is unlawful to take or possess any migratory nongame bird, as designated in the Migratory Bird Treaty Act (MBTA), or possess any part of a migratory nongame bird.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) preserves, protects, and enhances endangered and rare plants in California. Specifically, it prohibits import, take, possession, or

sale of any native plant designated by the CDFW Commission as rare or endangered, except under certain circumstances designated by the act.

Federal Regulations

Federal Endangered Species Act

The federal ESA states that it is unlawful to “take” any species listed as threatened or endangered. Take is defined as actions intended to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” An activity is defined as a take even if it is unintentional or accidental. Take provisions under the federal ESA apply only to listed fish and wildlife species under the jurisdiction of the USFWS and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS). Where a project “may affect” or result in take of a listed species, consultation with USFWS or NMFS is required. When a species is listed, USFWS and/or NMFS, in most cases, must officially designate specific areas as critical habitat for the species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits actions that would result in a “take” of migratory birds, eggs, feathers, or nests. Take is any attempt to hunt, pursue, wound, kill, possess, or transport by any means, or in any manner, any migratory bird, nest, egg, or part thereof. Migratory birds are also protected through Section 3513 of the California Fish and Game Code.

Bald and Golden Eagle Protection Act

Under the regulation of the USFWS, the Bald and Golden Eagle Protection Act states that it is illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or parts. An amendment in 1978 authorized the US Secretary of the Interior to permit take of golden eagle nests that interfere with resource development or recovery operations.

On September 11, 2009, USFWS announced a final rule for two permit regulations that allows for the take of eagles and eagle nests. The permits authorize limited non-purposeful take of bald eagles and golden eagles, authorizing individuals, companies, government agencies (including tribal governments), and other organizations to disturb or take eagles in the course of conducting lawful activities, such as operating utilities (wind and solar projects) and airports. Permits issued under the new regulations would authorize disturbance. However, rarely, authorization may permit take of eagles, only if every avoidance precaution is taken. Removal of eagle nests would usually be allowed only when it is necessary to protect human safety or the eagles.

APPENDIX C

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