

Biological Assessment Report

Assessor Parcel Number (APN):
107 – 091 – 003



Prepared by:



CONFIDENTIAL

Mason London MSc, Owner/Biologist

X 

Prepared for:

Dylan Mattole
Mattole Valley Organics

905 Lindley Rd.
Petrolia, CA
95558

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Section 1 Summary of Findings and Conclusions

The project applicant seeks a Zoning Clearance Certificate (ZCC) to cultivate approximately 1 acre of outdoor cannabis. The applicant currently is permitted to cultivate 10,000 ft² of cannabis utilizing outdoor light deprivation methods. The applicant is proposing to expand this operation to incorporate an additional 12,000 ft² of outdoor light deprivation, a 2,000 ft² nursery, and 19,560 ft² of outdoor, full term dry farmed cannabis. The project site is located approximately 1.90 air miles west of Honeydew in Humboldt County, California. All proposed site locations have preexisting disturbance consisting of cattle, sheep and alpaca grazing. Although the seasonal timing of the field visit was not appropriate for the detection of all blooming rare and special status plant species, the preexisting disturbance at the proposed cultivation sites makes it unlikely that special status plant and animal species are present within the proposed site location, or would be negatively impacted by the project. With the proposed recommendations observed, this project is not anticipated to cause any direct or indirect impacts to the surrounding wildlife, environment and/or habitats.

Section 2 Introduction, Background, and Project Understanding

2.1 Purpose and Need

This Biological Assessment Report has been prepared by request from the applicant. This report has been prepared as a preliminary measure to investigate the potential impact of the cultivation of an additional 33,560 ft² of cannabis, as well as the preexisting 10,000 ft² of cannabis, on the parcel. The environmental and biological impacts related to this proposed project were assessed in terms of disturbance to sensitive species and site-specific habitat.

2.2 Biologist's Qualifications

The biological assessment for this report was conducted by Mason London. Mason holds an MSc in Biology with a concentration in aquatic ecology from Humboldt State University. Mason also has 10 years of experience working professionally as a botanist, wildlife biologist, aquatic ecological research scientist, and has instructed ecological courses at the university level.

2.3 Parcel and Project Site Description

This Biological Assessment Report considers the potentially occurring species and communities that could be affected by the proposed project based on available spatial data, habitat requirements, and observations made during a site visit. The project site was evaluated for potential habitat value to protect endangered, threatened, rare, and sensitive species by walking around the project area to observe species, habitat types and quality (Map 1). Other project related aspects, such as water storage, site location and cultivation methods were assessed in terms of ecological and biological impact.

On January 30th, 2020 a biological resource and habitat survey, with regards to special status species, was conducted for the area of potential effects for the cultivation of approximately 1 acre of outdoor cannabis. This proposed project is to occur over two sites, with an additional site having preexisting permitted cultivation. The proposed activities at the project sites will consist of cultivating 19,560 ft² of cannabis using outdoor full term dry farmed methods (*Site 1*) and 12,000 ft² of outdoor light deprivation methods (*Site 2*). There will also be a 2,000 ft² nursery at *Site 2*. The preexisting cultivation site on the parcel utilizes outdoor light deprivation

cultivation methods as well (*Site 3*). Throughout the rest of this report these sites will be referred to as *Site 1*, *Site 2* and *Site 3* (Map2). All sites occur in locations that have been heavily disturbed by grazing livestock for at least the last 150 years.

The parcel (APN: 107-091-003) where the proposed project sites are to occur is 59.00 acres (Map 1 & Map 2). The parcel is located approximately 1.90 air miles west of Honeydew in Humboldt County, California within the Shubrick Peak 7.5 minute quadrangle (Quad code: 4012422) in the in the Mattole River watershed (CDFW Region: 1). The center location of this parcel is 40°14'34.1"N 124°09'37.4"W. The elevation of the center of the proposed project sites is approximately 285 feet (~89 meters) above sea level (Google Earth Pro, 2019). This parcel is zoned as Unclassified (U) which has a principle permitted use of "general agriculture" (Humboldt County Code Zoning Regulations, Title III Land Use and Development). The current general plan for this parcel is Agriculture Grazing (AG) which "... applies to dry-land grazing areas in relatively small land holdings that support cattle ranching or other grazing supplemented by timber harvest activities that are part of the ranching operation, and other non-prime agricultural lands. Residential uses must support agricultural operation. Density range is 20-160 acres/unit" (2017 Humboldt County General Plan, 2017).

2.4 Cultivation

For the cultivation of cannabis at *Site 1* the applicant will utilize full term, outdoor methods and planted directly into the ground (Figure 1). This cannabis will be dry farmed, and will only be watered a few times after the initial planting. The cannabis at *Site 1* will be mostly row cropped, but approximately 2,000 ft² of the 19,560 ft² will be cultivated on contour hugelkultur beds for marketing proposes. The cultivation at *Site 2* will occur in small hoop houses and will utilize outdoor, light deprivation methods (Figure 2). For both methods of cultivation, no wattage for either lights or fans will be utilized, and will therefore require no use of electricity or generators. Because of these cultivation methods, no noise or light pollution will impact the surrounding area and therefore will have no associated disturbance to surrounding wildlife. Furthermore, given the historic disturbance from intensive livestock grazing to the habitat of the proposed project sites, no activities associated with this project are anticipated to cause further disturbance to the habitat quality in anyway.

2.5 Water Collection and Storage

Water for cultivation will be derived from rainwater catch/storage tanks. The applicant already has enough storage on site to support the preexisting cultivation of 10,000 ft² of outdoor light deprivation cannabis, but will expand storage to have an additional 120,000 gallons to support the proposed 12,000 ft² cultivation at *Site 2*. No additional storage is needed for the proposed 19,560 ft² of dry farmed cannabis.

According to the National Weather Service, the annual average precipitation (averaged between 1961 and 1990), shows this region receiving, on average, between 75 and 100 inches of rain per year. This amount of rain is adequate to fill the amount of rain catch/storage tanks that the applicant will install and utilize during the farming/forbearance season.

Section 3 Methods

3.1 Pre-Site Visit Data Compilation and Preparation

A list of special-status plant and animal species to consider to be potentially present within the parcel was downloaded from the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB, CDFW, 2019) BIOS, the United State Fish and Wildlife Service Information for Planning and Conservation (IPaC, USFWS 2019), Calflora Project (Calflora, 2019) for the Subrick Peak 9-quad area. Animals on the CNDDDB list were primarily included based on state or federal listing status or CDFW designation. Native pollinators found in the area were also included based on the state rarity and their potential to be affected by cannabis cultivation.

The special status species in the 7.5 minute USGS Shubrick Peak quadrangle, and the 8 adjacent quadrangles, resulted in 36 special status animal species (4 amphibians, 8 birds, 6 fishes, 2 insects, 14 mammals, 1 mollusks and 1 reptile) (Appendix A: Table 1), 30 special status plant (1 lichen and 29 Vascular) (Appendix A: Table 2) and 3 special status habitat communities (Coastal and Valley Freshwater Marsh, Coastal Douglas Fir Western Hemlock Forest and Upland Douglas Fir Forest).

3.2 Biological Resource and Habitat Investigation

A biological resource and habitat investigation was conducted at the project site between 11:00 and 14:00 on January 30th, 2020 (Map 1). The weather was sunny and clear, but occurred after many days of rainfall. The timing of the investigation, in the middle of winter, was outside the blooming period for the majority of the plant species on the sensitive species list. However, the goal of the investigation was to determine suitable habitat for potential species within the project areas. Habitat and habitat characteristic for the proposed project sites and the adjacent area was investigated (Map 1). Dominate species in surrounding habitats, project related features such as cultivation methods, irrigation sources, and project site setbacks from watercourses were also observed and recorded. A TruPulse 200X laser rangefinder was used to make all of the distance and slope measurements and for determining adequate setbacks.



3.2.1 Project Site Location and Description

All new and preexisting activities associated with this project will occur within the same habitat and proximity to one another. *Site 1* and *Site 2* will occur within the same habitat as *Site 3* which is a large open field dominated by nonnative species and has been severely degraded from its natural habitat for a period of time over 150 years by intensive cattle grazing, and in recent years, by sheep and alpaca grazing. All project site locations have a slope less than 15%. No sensitive vegetation will be removed from this site, or within the surrounding area, for this proposed project. Furthermore, all site locations were determined to be in environmentally adequate areas for cultivation based on the surrounding habitat, observed species, and their setbacks to watercourses. Due to the history of disturbance, and the observed habitat type, the activities associated with this project are not anticipated to negatively impact this already disturbed habitat.

3.2.2 Sensitive Species

Of the 36 special status animal species, 10 had a moderate potential of occurring at, above or within the project site with additional species having potential to occur adjacent to the project site. Of the 30 special status plant species, 4 had a moderate potential of occurring at or within the project site with additional species having potential to occur adjacent to the project site. None of the 3 special status habitat communities were observed on the parcel.

Section 4 Results and Discussion

4.1 Habitat Area and Existing Site Conditions

The habitat investigated within the parcel is dominated by a thin corridor of mixed hardwood and coniferous forest, open grazed pasture, riparian habitat, open river terrace/floodplain and alluvial gravel bed. The entire southern, western, and northwestern boundary of the parcel are defined by the Mattole River, which is a Class I watercourse. The nearest cultivation site to this watercourse is the preexisting *Site 3*. The nearest boundary of this site to the nearest bankfull edge of watercourse is approximately 180 ft away, which is adequately setback and in accordance to the buffer distance as required and defined in Section 1, Requirement 37 of the State Water Resource Control Board: *Cannabis Cultivation Policy Attachment A: Definitions and Requirements for Cannabis Cultivation, 2019 (Map 2)*.

4.1.1 Terrestrial

The thin corridor of mixed hardwood and coniferous forest habitat, which separates the riparian habitat and river terrace/floodplain habitat from the pasture where the project site is proposed to occur, consists of species characteristic of southern Humboldt. The dominate species observed were white oak (*Quercus alba*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), small Douglas fir (*Pseudotsuga menziesii*) and a few canyon live oak (*Quercus chrysolepis*) (Figure 3). The observed dominate shrub species in the understory and margins of this habitat were poison oak (*Toxicodendron diversilobum*), patches of coyote brush (*Baccharis pilularis*) small immature California bay, and Scotch broom (*Cytisus scoparius*) (Figure 4). Intermixed with these shrub species, herbaceous species observed were rescue grass (*Bromus catharticus*), hairy buttercup (*Ranunculus repens*), sweet vernal grass (*Anthoxanthum odoratum*), western bracken fern (*Pteridium aquilinum var. pubescens*), slender wild oat (*Avena barbata*), hairy vetch (*Vicia villosa*), a small patch of yellow narcissus (*Narcissus poeticus*) to the northern extent of this habitat, and other small native and nonnative forbs (Figure 5). This habitat exists on the parcel as a thin corridor west of the open disturbed pasture field and is not anticipated to be negatively impacted by the proposed project in anyway.

There is a row of small Douglas fir trees north east of the project sites which were planted by a previous land owner as a wind block (Figure 6). There were no other dominate species observed in this habitat and this habitat is not anticipated to be impacted by the proposed project in anyway.

The riparian habitat along the steep bank south of the open pasture and along the Mattole River is dominated by Scotch broom, coyote brush and Himalayan blackberry (*Rubus armeniacus*). Red alders (*Alnus rubra*) are present in a thin row on the rivers bankfull edge (Figure 7). The proposed project is adequately set back from this habitat and therefore there is no anticipated impacts associated with any of the proposed activities.

The river terrace/floodplain on the parcel, which is west of the proposed project sites and the mixed hardwood and coniferous forest habitat, is dominated by coyote brush, western bracken fern, common velvet grass (*Holcus lanatus*), wild oat grass (*Avena fatua*), hedgehog dogtail (*Cynosurus echinatus*), hairy vetch, tall fescue (*Festuca arundinacea*), a few patches of Himalayan blackberry, and a few common mullein (*Verbascum thapsus*) (Figure 8). To the northwest of this habitat, along the river, there is a thin corridor consisting of Pacific willow (*Salix lucida*) and red alders (Figure 9). The proposed project is not anticipated to impact this habitat in any way.

Site 1 and *Site 2* exist in the same habitat which has been severely degraded by over a century of heavy grazing from livestock. This pasture habitat is dominated by many nonnative forb and grass species, such as rescue grass, tall fescue, sweet vernal grass, orchard grass (*Dactylis glomerate*), cut leaved geranium (*Geranium dissectum*), flatweed (*Hypochaeris radicata*), bull mallow (*Malva nicaeensis*), white clover (*Trifolium repens*), bull thistle (*Cirsium vulgare*), big quaking-grass (*Briza maxima*), sheep sorrel (*Rumex acetosella*), medusahead (*Elymus caput-medusae*) red-stem filaree (*Erodium cicutarium*), Bolander's phacelia (*Phacelia bolanderi*), and others (Figure 1 & 2). The preexisting *Site 3* is characterized by the same habitat, but with less species diversity (Figure 10). Even though some of these listed species are native, nonnative species dominate this habitat and given the long history of disturbance associated with the livestock grazing at this location, the proposed activities associated with this project are not



anticipated to impact the habitat quality any more than already has been. Furthermore, the site is likely to become improved and protect the further spread of nonnatives and invasive species because all present invasive species at this site will be removed for the anticipation of cultivation and in accordance to the methods explained in the associated Invasive Species Control Plan created for this project.

4.1.2 Hydrologic and Aquatic

As previously mentioned, the observed watercourse on the parcel (the Mattole River) is outside of the required setbacks from the proposed project site locations so no further investigation was done to this habitat.

4.1.3 Sensitive Species and Habitats

Each species derived from the previously mentioned databases were evaluated for their potential of occurrence within the project site by the following criteria:

1. **“None.”** Species listed as having “none” potential of occurrence are those species for which there is no suitable habitat within the project area (elevation, hydrology, plant community, disturbance regime, etc.)
2. **“Low.”** Species listed as having a “low” potential of occurrence are those species for which there is no known occurrence of the species within the project area and there is limited or marginal suitable habitat present at the project area.
3. **“Moderate.”** Species listed as having “moderate” potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is suitable habitat present within the project area.
4. **“High.”** Species listed as having “high” potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is highly suitable habitat present within the project area.
5. **“Present.”** Species listed as having “present” potential of occurrence within the project area are those species for which the species was observed during the field survey.



Species with a 'low' potential of occurrence were not further investigated for likelihood to exist within or utilize the project site habitat. A rank of low was given to species that most likely will not occur, or are highly unlikely for them to occur, based on their habitat requirements. However, there are always exceptions to natural rules and so these species were not given the rank of 'none' because it is not entirely impossible for them to occur, just extremely unlikely. There were no observed, or mapped occurrences of any of these species surrounding a large buffer (multiple miles) of the project site as shown by the CNDDDB Bios map (Appendix B: Map 3)

4.2 Special Status Plant Species

Potential habitat for 4 special-status species exist within the project area. These species include Maple-leaved checkerbloom (*Sidalcea malachroides*), Siskiyou checkerbloom (*Sidalcea malviflora ssp. Patula*), leafy reed grass (*Calamagrostis foliosa*) and Pacific gilia (*Gilia capitata ssp. pacifica*).

Maple-leaved checkerbloom (*Sidalcea malachroides*) has a moderate potential of occurring at the project sites. Its elevation range is between 0 and 730 meters. It blooms between April and Augusts and is known to occur in broadleaved upland forests, coastal prairies, coastal scrubs, North Coast coniferous forests, and riparian woodlands and also is often found in disturbed areas. Since the project site does have a history of disturbance, the potential of *Sidalcea malachroides* occurrence could be likely. However, since *Sidalcea malachroides* is a perennial herb with distinct "maple like" leaves, it is easily identified even when not in bloom. No *Sidalcea malachroides* were observed during the site investigation and it is concluded that it is highly unlikely that this species occurs at the project site. Furthermore, given the level of consistent disturbance in the form of grazing livestock, it is highly unlikely that this species could establish and have a present population. The potential habitat areas surrounding the project site will not be disturbed by this proposed project.

Siskiyou checkerbloom (*Sidalcea malviflora ssp. patula*) has a moderate potential of occurring at the project site. Its elevation range is between 15 and 880 meters and is known to occur in costal bluff scrub, coastal prairies, North Coast coniferous forests, and also found in roadcuts.

While habitat for this species does exist within the field at the project site, the history and level of disturbance makes it highly unlikely that this species would occur at the project site. Also, this species prefers wetland/wetter areas, which is nonexistent in the project site. *Sidalcea malviflora ssp. patula* is also a perennial herb that was not observed during the project site survey. The potential habitat areas surrounding the project site will not be disturbed by this proposed project.

Leafy reed grass (*Calamagrostis foliosa*) is a perennial bunchgrass found between 0 and 1220 meters in coastal bluff scrub North Coast coniferous forests and prefers rocky places. The habitat of the field makes it moderately likely that *Calmagrostis foliosa* could exist within the project site. Given the history of disturbance from livestock it is unlikely that this species could still be found within the project site. Also, given that this bunch grass is perennial, it is easily identified outside of its blooming period, which is May through September, and no *Calamagrostis foliosa* were observed during the site visit. The potential habitat areas surrounding the project site will not be disturbed by this proposed project.

Pacific gilia (*Gilia capitata ssp. pacifica*) has a moderate potential of occurring at the project site. Its elevation range is between 5 and 1665 meters and is known to occur in coastal bluff scrub, chaparral openings, coastal prairies and valley/foothill grasslands. While habitat for this species does exist within the field at the project site, the history of disturbance, makes it highly unlikely that this species would be able to establish and occur at the project site. The potential habitat areas surrounding the project site will not be disturbed by this proposed project.

4.3 Special Status Animals Species

Moderate to high potential habitat for 10 special status animal species exists within the project location. Of these 10 species, 7 are either birds or bats and would only utilize the project site's air space for flying over and/or the ground area for hunting. However, none of these species would utilize the project site for nesting or shelter due to the sparseness of canopy cover and other habitat characteristics. It is not expected that these species will be impacted in anyway by the proposed project, therefore they were not further investigated in this report. The remaining



3 special-status species include the obscure bumble bee (*Bombus caliginosus*), the Western bumblebee (*Bombus occidentalis*) and the North American porcupine (*Erethizon dorsatum*).

The **obscure bumble bee (*Bombus caliginosus*)** nests underground or above ground in abandoned bird nests. Its favorable foraging plants include *Baccharis spp.*, *Cirsium spp.*, *Lupinus spp.*, *Lotus spp.*, *Grindella spp.*, *Phacella spp.* and even though some of these species could be found within the project site, it unlikely that there would be a significant loss of foraging habitat as a result of the project due to the cultivation methods and to the historical level of grazing disturbance within this project site. It is also unlikely that there would be significant loss of nesting habitat as a result of the project since the applicant will be cultivating outdoors and in the ground. It is not anticipated that the project will negatively impact this species.

The **Western Bumblebee (*Bombus occidentalis*)** is widely distributed in California and is known to pollinate a wide variety of flowering plants. This species lives in abandoned burrows and cavities and potential nesting locations may exist within the project area. However, it unlikely that there would be a significant loss of nesting habitat as a result of the project. Furthermore, it is unlikely that the project would result in a significant decrease in forage material, due to the projects proposed cultivation method and the preexisting limited foraging material as a result of the site's previous disturbance. It is not anticipated that the project will negatively impact this species.

The **North American Porcupine (*Erethizon dorsatum*)** can be found in forested habitats in broadleaf upland forest, cismontane woodland, and lower and upper montane conifer forest. Even though this species may reside in the nearby by habitat, and could pass through the project site while foraging, the lack of cover within the proposed project sites make it unlikely that this species would be found in the project area. Also, the frequent human activity that occurs within the project area likely results in *Erethizon dorsatum* not utilizing the site. It is not anticipated that the project will negatively impact this species.

4.3.1 Other Special Status Animal Species

There is a known occurrence of an **American badger (*Taxidea taxus*)** approximately 0.5 miles northwest of the project site, outside of the applicant's parcel (Map 3; Occurrence Report 1). *Taxidea taxus* is most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils. The particular individual that was observed near the applicant's parcel was found on a "[f]lat river terrace," in "[o]pen rangeland approximately 765 feet [northeast] of the landing strip on Mattole Road." And according to the occurrence report, "[t]he individual observed was located at a burrow entrance and was aggressively defending the site." Even though the type of habitat that this *Taxidea taxus* was observed in does exist on the applicant's parcel (the river terrace/floodplain habitat) the habitat where the proposed project is to occur does not meet the description of being favorable due to the compacted soils associated with a long history of heavy livestock grazing. The occurrence report describes the microhabitat of *Taxidea taxus* as "...friable soils and open, uncultivated ground." Since the soils of the project site are not friable, meaning easily crumbled, there is no anticipated impact to any potential habitat for this species. Furthermore, the river terrace/ floodplain habitat that is present on the applicant's parcel will not be impacted in anyway by the activities associated with this project so will not harm the potential for *Taxidea taxus* to occur in its suitable habitat.

The nearest known **Northern Spotted Owl (*Strix occidentalis caurina*)** Activity Center (HUM1012), according to the most up to date CNDDDB Spotted Owl Viewer, is approximately 0.70 air miles from the nearest proposed project site (Map 4; Occurance Report 2). Northern spotted owls reside in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 meters. They usually nest in trees or snag cavities, or in broken tops of large trees (Polite C. 1990). The surrounding habitat to the parcel is not dominated by this forest type, but rather surrounding this project site is more dominated by open pasture and grassland with sparse stands of mixed forest, which is not preferred by *Strix occidentalis caurina*.

Even though this project will not "...remove or modify spotted owl nesting, roosting or foraging habitat...", according to the USFWS Northern Spotted Owl Survey protocol: Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, the "...

protocol should also be applied to activities that disrupt essential breeding activities and to activities that may injure or otherwise harm spotted owl other than through habitat modification (e.g., noise disturbance, smoke from prescribed fire),” (USFWS, 2012). It is noted that in general, noise levels of 70 dB or less, would not generate a significant disturbance unless within very close proximity (<25 m) to an active nest (USFWS 2006). Since the cultivation methods proposed for this project will utilize no generators or lights, all potential for noise and light pollution are eliminated, and therefore there is no expected disruptions towards essential breeding activities or any activities that may injure or harm this species, or any other species, related to this project.

4.4 Special Status Habitat Communities

The three special status habitat communities identified in the CNDDDB BIOs search in the 7.5 minute USGS Shubrick Peak quadrangle, and the 8 adjacent quadrangles, are the Coastal and Valley Freshwater Marsh, Coastal Douglas Fir Western Hemlock Forest and the Upland Douglas Fir Forest.

The **Coastal and Valley Freshwater Marsh** is only documented to occur within the Petrolia quadrangle. The description of a Freshwater Marsh habitat is described to consist of freshwater that develop in shallow, standing or slow-moving water at the edge of ponds and streams, and at other sites that, lack currents and is permanently flooded by fresh water. There was no such habitat observed during the site visit and is therefore determined to not exist on parcel.

The **Coastal Douglas Fir Western Hemlock Forest** was also only documented to occur within the Petrolia quadrangle as well. According to the Society of American Foresters: *Forest Cover Types of the United States and Canada*, this habitats composition is defined by “[c]oast Douglas fir and western hemlock both present in substantial amounts in this mixed-species type, and together comprise at least 80 percent of the stocking. Douglas fir usually is predominant, but hemlock may be so on more moist or less fertile sites.” No western hemlock were observed on the parcel, and the Douglas fir trees observed on the parcel do not meet this forest type composition description. Therefore, this habitat type was determined to not exist on parcel.



The third special status habitat community identified on the CNDDDB BIOs search was **Upland Douglas Fir Forest** which is only documented to occur within the Honeydew quadrangle. Even though there were Douglas fir trees identified on the parcel, all of the occurrence reports that identify this habitat throughout California describe, in the *Ecological Comments* section, Douglas fir individuals in this community are either “mature” or “old-growth.” No Douglas fir individuals on the property fit this description. Furthermore, according to the California Native Plant Society (CNPS), a Douglas fir forest is comprised of “*Pseudotsuga menziesii* > 50% relative cover in the tree canopy and reproducing successfully, though hardwoods may dominate or co-dominate in the subcanopy and regeneration layer; *Abies concolor*, *Chamaecyparis lawsoniana*, *Pinus contorta*, *P. ponderosa*, and *Sequoia sempervirens* <20% relative cover; and *Notholithocarpus densiflorus* <10% relative cover in the tree canopy” (Jimerson et al. 1996). This habitat description was not observed on the parcel, and given the proposed cultivation methods associated with this project, there are no anticipate impacts to any forested habitat.



Section 5 Conclusion

5.1 Potential Impacts and Recommended Mitigation

5.1.1 Potential Direct Impacts

Direct impacts are considered to be effects that may occur to the environment from direct interface with the proposed action. The proposed cultivation within the project site is considered to have no direct impacts to the environment or the surrounding habitat. Given the preexisting disturbance to the project site, and the fact that no sensitive vegetation will be removed within and surrounding the project sites, the proposed cultivation plan renders no negative habitat alterations. As a result of the abundance of invasive and nonnative species on the parcel and within the proposed project sites, the applicant will be improving the environment and habitat by the removal of these species. Because of these factors, the activities associated with the cultivation of these proposed sites would only potentially have direct impacts as disturbance-based.

Common disturbance-based impacts include noise and light pollution. For the proposed project, no noise or light will be generated in association with this project, due to the outdoor cultivation methods. Therefore, there will be no expected disturbance-based impacts to the surrounding wildlife.

5.1.2 Potential Indirect Impacts

Given the existing habitat and environment of the parcel, the proposed irrigation source being rain catchment, and the existing disturbance to the proposed cultivation sites, the minimal development that will occur should have no significant adverse indirect impacts to the surrounding environment, habitats and wildlife.

5.1.3 Recommendations

If the applicant proceeds with the proposed cultivation plan, there is no foreseeable issues to the environment based on the location of the proposed project sites or with the activities associated with the cultivation process. It is recommended that the applicant follow the recommended procedures for eradicating the invasive species identified in the associated

Invasive Species Control Plan document. The locations of these proposed sites are adequately setback and will adhere to the required riparian buffers, as met by the most conservative California requirements. The applicant is to obey the measured setbacks from the watercourses identified.

Section 6 References

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Appendix A: Photos



Figure 1. Location of project Site 1 (standing at the south eastern end facing north west). Expected cultivation of approximately 15,600 ft².

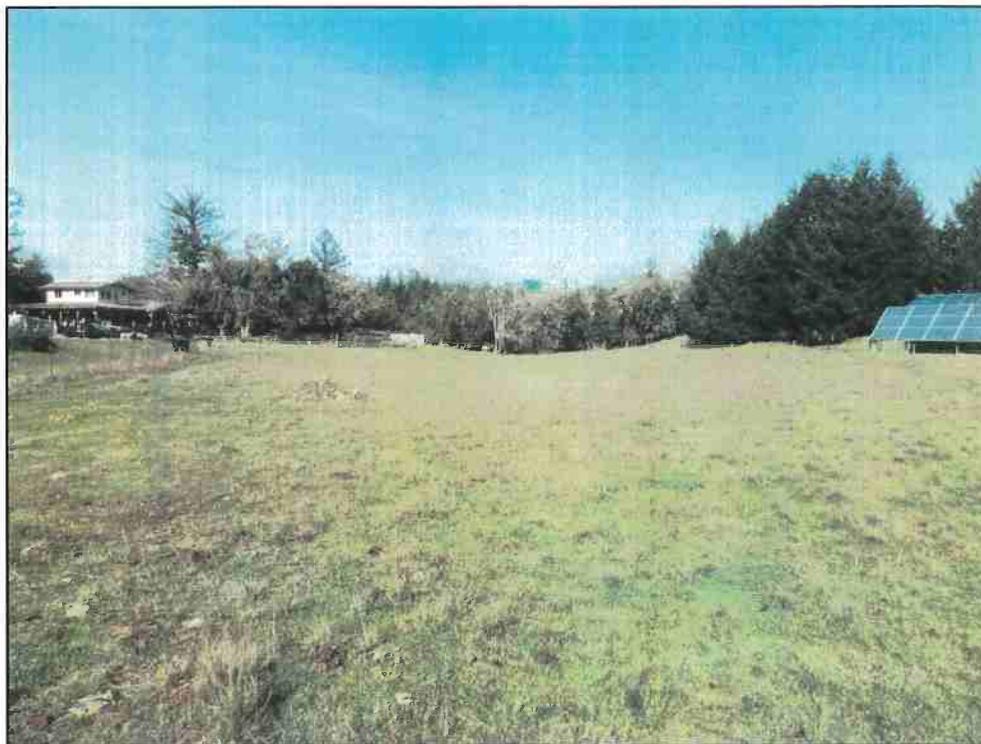


Figure 2. Location and habitat of project Site 2 (standing at southern end facing north). Expected cultivation of approximately 12,000 ft².



Figure 3. The thin corridor of mixed hardwood and coniferous forest habitat, which separates the riparian habitat and river terrace/floodplain habitat from the pasture where the project site is proposed to occur.



Figure 4. The mixed hardwood and coniferous forest understory habitat.



Figure 5. Herbaceous species observed in the mixed hardwood and coniferous forest understory habitat



Figure 6. The row of planted Douglas fir trees north east of Site 1.

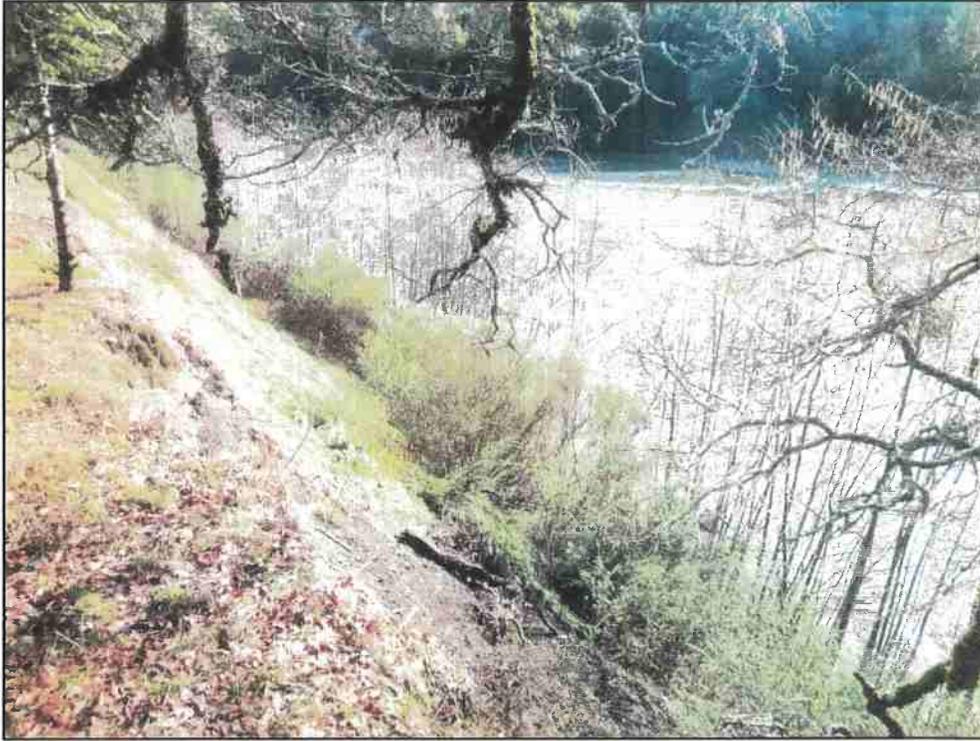


Figure 7. The riparian habitat south of the project sites.



Figure 8. The river terrace/floodplain habitat west of the project sites.

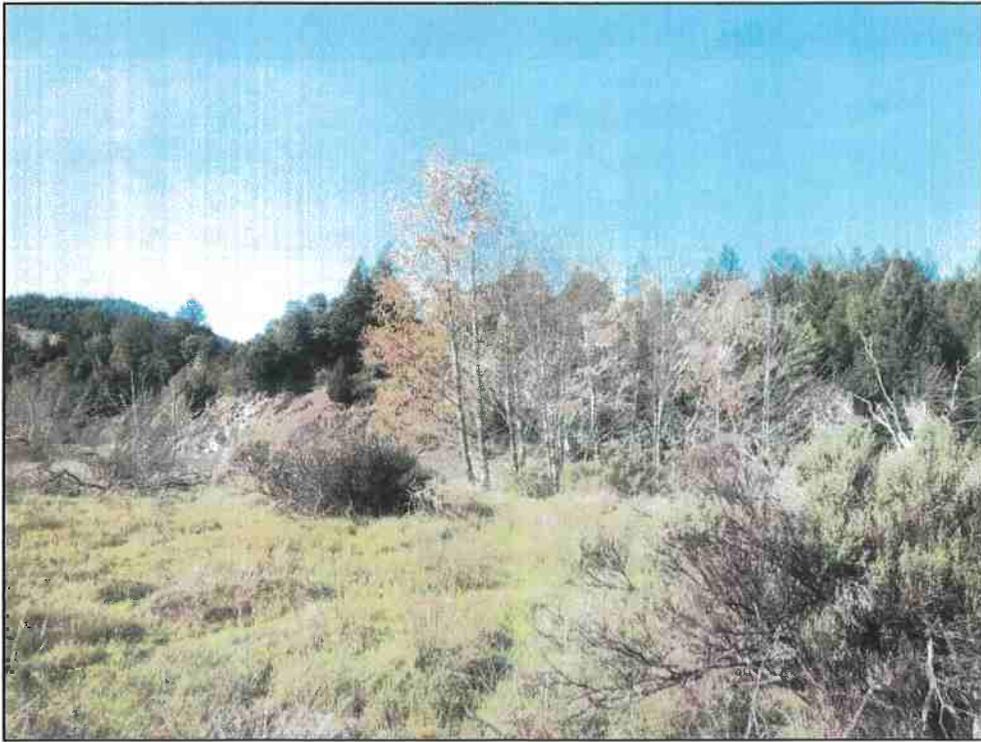
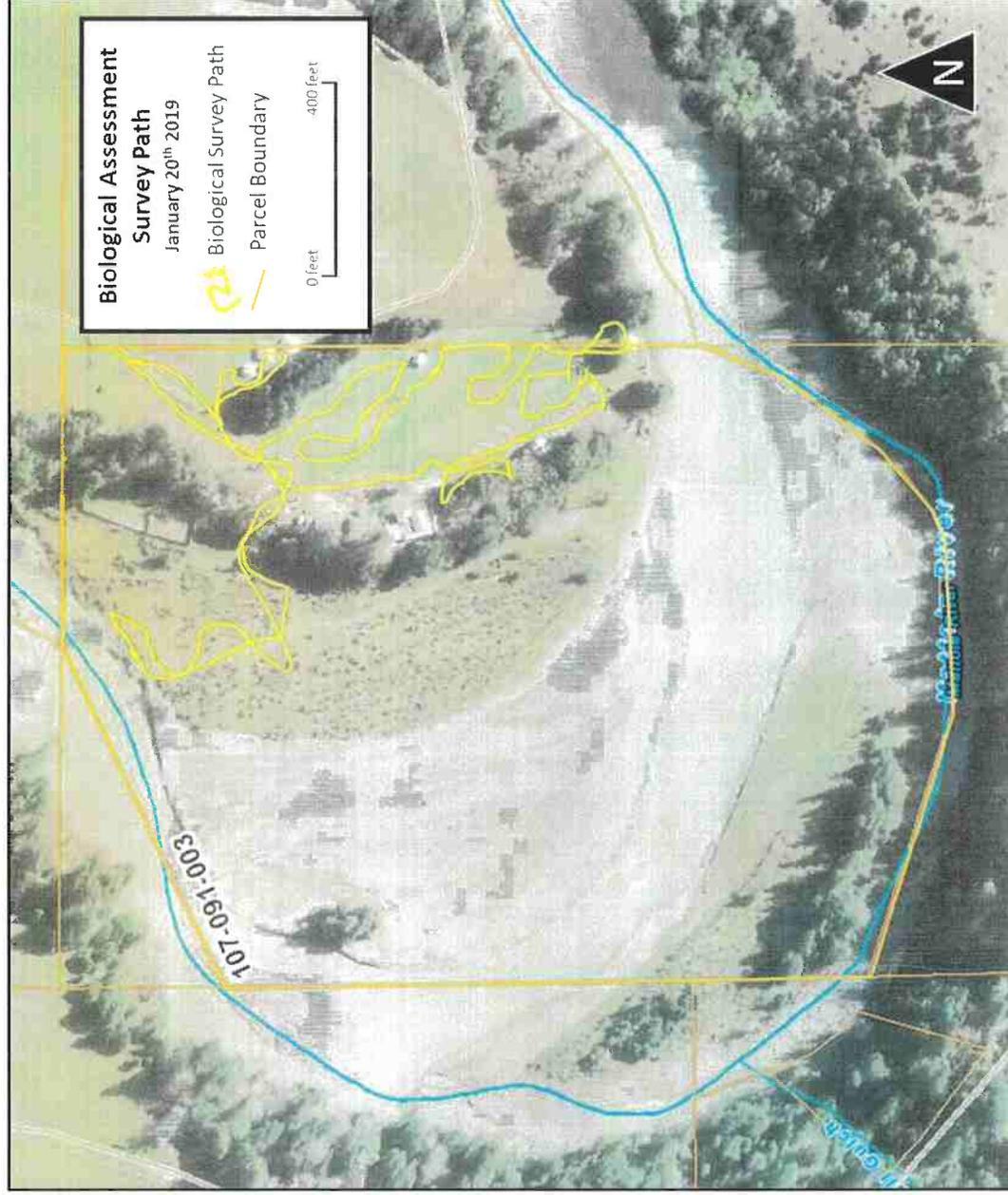


Figure 9. The red alders and pacific willows past the river terrace/floodplain habitat along the Mattole River.

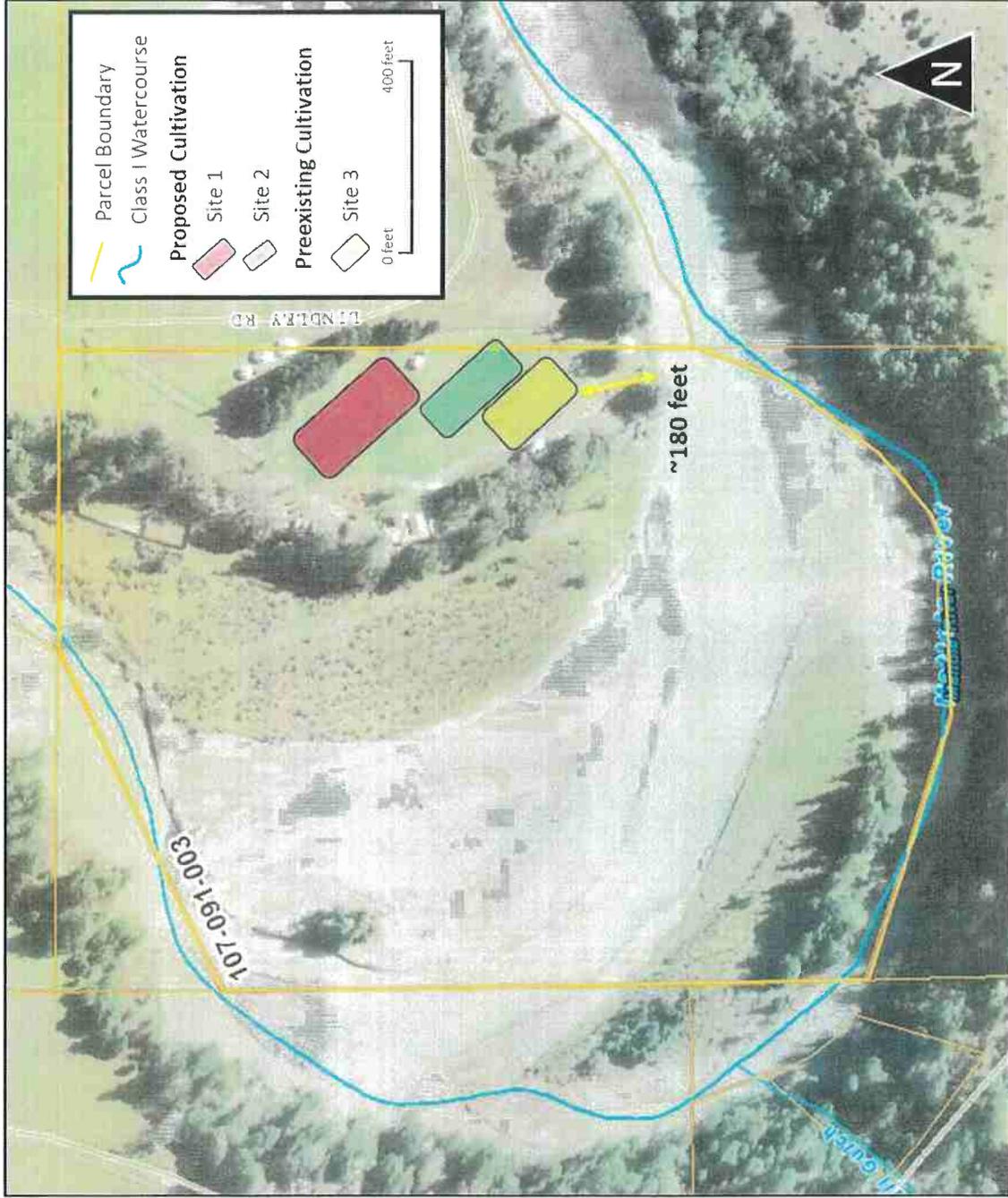


Figure 10. Preexisting cultivation Site 3.

Appendix B: Maps

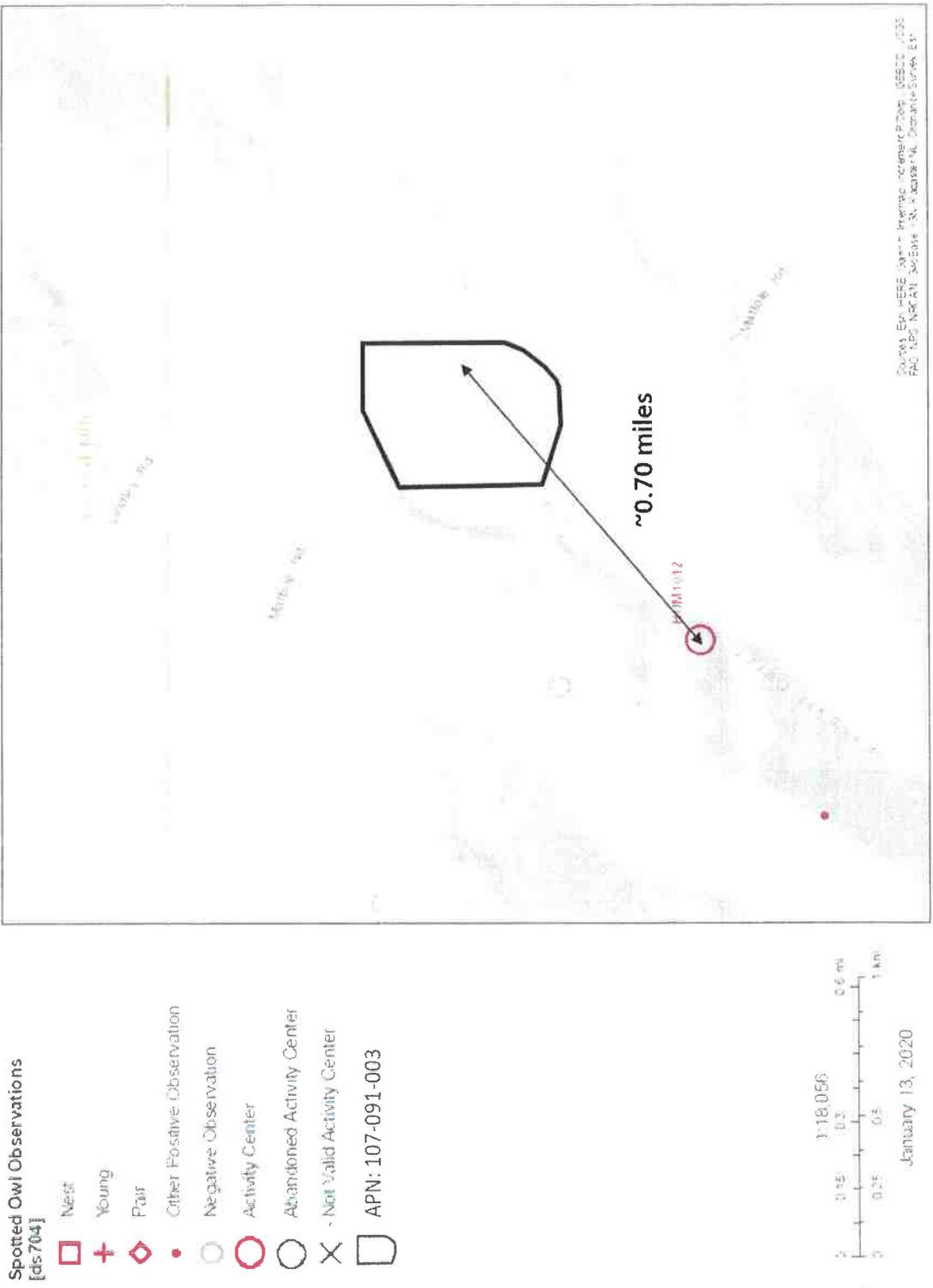


Map 1. The general path taken during the biological survey and site visit investigation on January 30th, 2020. (This is not a boundary survey, property lines shown here are approximated and taken from Humboldt County Web GIS)



Map 2. The parcel showing the approximate locations of proposed cultivation sites, location of the Class I watercourses and the distance setback to the project site. The location of all three of the proposed cultivation sites were determined to be adequately setback from these watercourses. (This is not a boundary survey, property lines shown here are approximated and taken from Humboldt County Web GIS)

Nearest Spotted Owl Activity Center to Project Site



Map 4. Distances from project sites to the nearest Spotted Owl Activity Centers.

Appendix C

Table 1 – Special Status Animal Species – January 2020 – APN 107-091-003 – SHUBRICK PEAK (4012422) and surrounding 7.5 min quadrangles

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	Habitats	Potential of Occurrence
Amphibians						
<i>Ascaphus truei</i>	Pacific tailed frog	None	None	SSC	Inhabits cold, clear, permanent rocky streams in wet forests. They do not inhabit ponds or lakes. A rocky streambed is necessary for protective cover for adults, eggs, and larvae. After heavy rains, adults may be found in the woods away from the stream.	Low in project area. Moderate in adjacent area.
<i>Rana boylei</i>	foothill yellow-legged frog	None	Candidate Threatened	SSC	found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	Low in project area. High in adjacent area.
<i>Rhyacotriton variegatus</i>	southern torrent salamander	None	None	SSC	This species occurs in cold, well-shaded permanent streams and seepages in shady coastal forests.	Low in project area. Moderate in adjacent area.
<i>Taricha rivularis</i>	red-bellied newt	None	None	SSC	Broadleaved upland forest North coast coniferous forest Redwood Riparian forest Riparian woodland Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	Low in project area. Moderate in adjacent area.
Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	None	None	WL	A breeding resident throughout most of the wooded portion of the state. Breeds in southern Sierra Nevada foothills, New York Mts., Owens Valley, and other local areas in southern California. Ranges from sea level to above 2700 m (0-9000 ft). Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently.	Moderate in project area (flyover). Moderate in adjacent area.
<i>Aquila chrysaetos</i>	golden eagle	None	None	FP ; WL	Ranges from sea level up to 3833 m (0-11,500 ft) (Grinnell and Miller 1944). Habitat typically rolling foothills, mountain areas, sage-jumper flats, desert.	Moderate in project area (flyover). Low in adjacent area.
<i>Brachyramphus marmoratus</i>	marbled murrelet	Threatened	Endangered	-	requires dense, mature forests of redwood and Douglas-fir for breeding (Cogswell 1977, Remsen 1978). In California, probably prefers to nest in tall trees; nest made of moss and lichen. In summer, individuals or pairs commonly seen 1-2 km (0.6 to 1.2 mi) off the coast, and typically 6-8 km (4-5 mi) inland in coniferous forests (Cogswell 1977).	None in project area. Low in adjacent area.
<i>Ardea alba</i>	great egret	None	None	-	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland:Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Low in project area. Moderate in adjacent area.

<i>Ardea herodias</i>	great blue heron	None	None	-	The great blue heron is fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills.	Low in project area. Moderate in adjacent area.
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted	Delisted	FP	Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	None.
<i>Asio otus</i>	long-eared owl	None	None	SSC	Cismontane woodland Great Basin scrub Riparian forest Riparian woodland Upper montane coniferous forest: Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Moderate in project area (flyover). Moderate in adjacent area.
<i>Strix occidentalis caurina</i>	Northern spotted owl	Threatened	Threatened	SSC	Northern spotted owls typically nest or roost in multilayered, mature coniferous forest with high canopy closure, large overstory trees, and broken-topped trees or other nesting platforms (USFWS 2012). Confirmed breeding areas are widespread throughout Humboldt County (Hunter et al. 2005). Northern spotted owls may use a broad range of habitats for foraging. Their favored prey, the dusky-footed woodrat (<i>Neotoma fuscipes</i>), typically inhabits the forest edge (Harris 2005).	Low in project area (flyover). Low in adjacent area.
Fish						
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	SSC	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.
<i>Oncorhynchus kisutch</i> pop. 2	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.
<i>Oncorhynchus kisutch</i> pop. 4	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.
<i>Oncorhynchus mykiss irideus</i> pop. 16	steelhead - northern California DPS	Threatened	Threatened	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.

<i>Oncorhynchus mykiss irideus</i> pop. 36	summer-run steelhead trout	None	None	SSC	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.
<i>Oncorhynchus tshawytscha</i> pop. 17	chinook salmon - California coastal ESU	Threatened	None	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project area. High in adjacent area.
Insects						
<i>Bombus caliginosus</i>	obscure bumble bee	None	None	-	nests underground or above ground in abandoned bird nests. food plants include Baccharis, Cirsium, Lupinus, Lotus, Grindella, Phacella	Moderate in project site. Moderate/high in adjacent area.
<i>Bombus occidentalis</i>	western bumble bee	None	None	-	nests underground or above ground in abandoned bird nests. food plants include Baccharis, Cirsium, Lupinus, Lotus, Grindella, Phacella	Moderate in project area. Moderate in adjacent area.
Mammals						
<i>Erethizon dorsatum</i>	North American porcupine	None	None	-	broadleaf upland forest, cismontane woodland, lower and upper montane conifer forest	Moderate in project area. Moderate in adjacent area.
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	SSC	Occurs in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood- conifer habitats.	Low in project area. Moderate in adjacent area.
<i>Pekania pennanti</i>	fisher - West Coast DPS	None	Threatened	SSC	Occurs in intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percent canopy closure (Schempf and White 1977).	Low in project area. Moderate in adjacent area.
<i>Taxidea taxus</i>	American badger	None	None	SSC	Alkali marsh Alkali playa 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 lone 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: Most abundant	Low in project area. Moderate in adjacent area.

<i>Eumetopias jubatus</i>	Steller (=northern) sea-lion	Delisted	None	-	in drier open stages of moist shrub, forest, and herbaceous habitats, with friable soils.	None
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	SSC	This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range.	Moderate in project area (flyover). Moderate in adjacent area.
<i>Lasionycteris noctivagans</i>	silver-haired bat	None	None	-	coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo Co. It also occurs in southern California from Ventura and San Bernardino Cos. south to Mexico and on some of the Channel Islands.	Low in project area (flyover). Moderate in adjacent area.
<i>Lasiurus blossevillii</i>	western red bat	None	None	SSC	forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands.	Moderate in project area (flyover). Moderate in adjacent area.
<i>Lasiurus cinereus</i>	hoary bat	None	None	-	The hoary bat is the most widespread North American bat. May be found at any location in California, although distribution patchy in southeastern deserts.	Moderate in project area (flyover). Moderate in adjacent area.
<i>Myotis evotis</i>	long-eared myotis	None	None	-	This species has been found in nearly all brush, woodland, and forest habitats, from sea level to at least 2700 m (9000 ft), but coniferous woodlands and forests seem to be preferred	Moderate in project area (flyover). Moderate in adjacent area.
<i>Myotis lucifugus</i>	little brown bat	None	None	-	Fairly common in sagebrush, bitterbrush, alkali desert scrub, wet meadow, and montane chaparral. Least common in valley foothill woodlands, redwood, mixed chaparral, low sagebrush, alpine dwarf-shrub, coastal scrub, and grasslands.	Low in project area (flyover). Low in adjacent area.
<i>Myotis thysanodes</i>	fringed myotis	None	None	-	pinyon-juniper, valley foothill conifer and hardwood conifer	Low in project area (flyover). Low in adjacent area.
<i>Myotis volans</i>	long-legged myotis	None	None	-	Common in woodland and forest habitats above 1200 m (4000 ft). Also forages in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests.	None.

<i>Myotis yumanensis</i>	Yuma myotis	None	None	-	lower and upper montane conifer and riparian forest and woodland	Low in project area (flyover). Moderate in adjacent area.
Mollusk						
<i>Helminthoglypta arrosa monticola</i>	mountain shoulderband	None	None	-	Known only from the King Range in Humboldt County: Found in talus slopes.	None due to lack of talus habitat.
Reptile						
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	aquatic, flowing waters, standing waters, marsh, swamp, wetland	Low in project area. Moderate in adjacent area.

Definitions of CDFW statuses:

FP

Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

SS

Species of Special Concern: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL

Watch List: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Appendix C

Table 2 – Special Status Plant Species – January 2020 – APN 107-091-003 – SHUBRICK PEAK (4012422) and surrounding 7.5 min quadrangles

Scientific Name	Common Name	California Rare Plant Rank	Global Rank	State Rank	CESA	Bloom Period	Lifeform	Habitat	Micro Habitat	Elevation (m)	Potential of Occurrence
<i>Usnea longissima</i>	Methuselah's beard lichen	None	None	-	4.2	NA	fruticose lichen (epiphytic)	Broadleafed upland forest; North Coast coniferous forest	On tree branches; usually on old growth hardwoods and conifers.	50 - 1460 meters	Low in project area. Moderate in adjacent area.
<i>Antennaria suffrutescens</i>	evergreen everlasting	None	None	-	4.3	Jan-Jul	perennial stoloniferous herb	serpentine	Lower montane coniferous forest	500 - 1600 meters	None due to elevation range.
<i>Erigeron biolettii</i>	streamside daisy	None	None	-	3	Jun-Oct	perennial herb	Broadleafed upland forest; Cismontane woodland; North Coast coniferous forest	Rocky, mesic	30 - 1100 meters	Low in project area. Moderate in adjacent area.
<i>Hemizonia congesta</i> ssp. <i>tracyi</i>	Tracy's tarplant	None	None	-	4.3	May-Oct	annual herb	Coastal prairie; Lower montane coniferous forest; North Coast coniferous forest	openings, sometimes serpentine.	120 - 1200 meters	None due to elevation range.
<i>Hesperis matronalis</i> var. <i>brevifolia</i>	short-leaved evax	None	None	-	1B.2	Mar-Jun	annual herb	Coastal Strand, Northern Coastal Scrub	dunes, coastal	0 - 215 meters	None.
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	None	None	-	1B.2	Jan-Nov	perennial herb	Coast	Coastal bluff scrub, Coastal dunes, Coastal scrub	5 - 520 meters	None
<i>Layia carnosa</i>	beach layia	Endangered	Endangered	-	1B.1	Mar-Jul	annual herb	Coastal Strand, Northern Coastal Scrub (sandy)	dunes, coastal	0 - 60 meters	None.
<i>Erysimum concinnum</i>	bluff wallflower	None	None	-	1B.2	Feb-Jul	annual / perennial herb	Coastal bluff scrub, coastal dunes, coastal prairie	dunes, coastal	0 - 185 meters	None.
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	None	None	-	1B.2	(Apr)Jun-Oct	perennial herb	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt, stream-sides)	dunes, coastal	0 - 30 meters	None due to elevation range.
<i>Lathyrus glandulosus</i>	sticky pea	None	None	-	4.3	Apr-Jun	perennial rhizomatous herb	Cismontane woodland	NA	300 - 800 meters	None due to elevation range.
<i>Lathyrus palustris</i>	marsh pea	None	None	-	2B.2	Mar-Aug	perennial herb	Mesic	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest	1 - 100 meters	Low in project area. Low in adjacent area.
<i>Ribes roezlii</i> var. <i>amictum</i>	hoary gooseberry	None	None	-	4.3	Mar-Apr	perennial deciduous shrub	Broadleafed upland forest; Cismontane woodland; Lower montane coniferous forest; Upper montane coniferous forest	NA	120 - 2300 meters	None due to elevation range.
<i>Iris longipetala</i>	coast iris	None	None	-	4.2	Mar-May	perennial rhizomatous herb	Coastal prairie, Lower montane coniferous forest, Meadows and seeps.	Mesic sites, heavy soils	0 - 600 meters	low in project area. Low in adjacent area.

<i>Erythronium revolutum</i>	coast fawn lily	None	None	None	-	2B.2	Mar-Jul	perennial bulbiferous herb	Broadleafed upland forest; North Coast coniferous forest	Mesic, streambanks; Bogs and fens	0 - 1600 meters	None in project area. Moderate in adjacent area.
<i>Lilium rubescens</i>	redwood lily	None	None	None	-	4.2	Apr-Aug	perennial bulbiferous herb	Broadleafed upland forest; Chaparral; Lower montane coniferous forest; North Coast montane coniferous forest	Sometimes serpentine, sometimes roadsides.	30 - 1910 meters	None in project area. Moderate in adjacent area.
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	None	None	None	-	4.2	Apr-Aug	perennial herb	Broadleafed upland forest; Coastal prairie; Coastal scrub; North Coast coniferous forest; Riparian woodland	Often in disturbed areas.	0 - 730 meters	Moderate in project area. Moderate in adjacent area.
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	None	None	None	-	1B.2	May-Aug	perennial rhizomatous herb	Coastal bluff scrub; Coastal prairie; North Coast coniferous forest	often roadcuts.	15 - 880 meters	Moderate in project area. Moderate in adjacent area.
<i>Pityopus californicus</i>	California pinefoot	None	None	None	-	4.2	May-Aug	perennial herb (achlorophyllous)	Mesic	Broadleafed upland forest; Lower montane coniferous forest; North Coast coniferous forest	15 - 2225 meters	Low in project area. Moderate in adjacent area.
<i>Montia howellii</i>	Howell's montia	None	None	None	-	2B.2	Mar-May	annual herb	North Coast coniferous forest	Vernally mesic, sometimes roadsides; Meadows and seeps; Vernal pools	0 - 835 meters	Low in project area. Moderate in adjacent area.
<i>Clarkia amoena ssp. whitneyi</i>	Whitney's farewell-to-spring	None	None	None	-	1B.1	Jun-Aug	annual herb	Coastal	Coastal bluff scrub, Coastal scrub	10 - 100 meters	None in project area. Low in adjacent area.
<i>Epilobium septentrionale</i>	Humboldt County fuchsia	None	None	None	-	4.3	Jul-Sep	perennial herb	Broadleafed upland forest; North Coast coniferous forest	sandy or rocky.	45 - 1800 meters	Low in project area. Moderate in adjacent area.
<i>Listera cordata</i>	heart-leaved twayblade	None	None	None	-	4.2	Feb-Jul	perennial herb	Lower montane coniferous forest; North Coast coniferous forest	Bogs and fens	5 - 1370 meters	None in project area. Moderate in adjacent area.
<i>Piperia candida</i>	white-flowered rein orchid	None	None	None	-	1B.2	May-Sep	perennial herb	Broadleafed upland forest; Lower montane coniferous forest	sometimes serpentine	30 - 1310 meters	None in project area. Moderate in adjacent area.
<i>Castilleja littoralis</i>	Oregon coast paintbrush	None	None	None	-	2B.2	Jun-Jul	perennial herb (hemiparasitic)	Coastal bluff scrub, Coastal dunes, Coastal scrub	Sandy	15 - 100 meters	None.
<i>Calamagrostis foliosa</i>	leafy reed grass	None	None	Rare	-	4.2	May-Sep	perennial herb	Coastal bluff scrub, North Coast coniferous forest	rocky	0 - 1220 meters	Moderate in project area. Low in adjacent area.
<i>Pleurapogon refractus</i>	nodding semaphore grass	None	None	None	-	4.2	Apr-Aug	perennial rhizomatous herb	Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	mesic; riparian forest	0 - 1600 meters	Low in project area. Moderate in adjacent area.

<i>Gilia capitata</i> <i>ssp. pacifica</i>	Pacific gilia	None	None	-	1B.2	Apr-Aug	annual herb	Coastal bluff scrub; Chaparral (openings); Coastal prairie; Valley and foothill grassland	NA	5 - 1665 meters	Moderate in project area. None in adjacent area.
<i>Gilia millefoliata</i>	dark-eyed gilia	None	None	-	1B.2	Apr - Jul	annual herb	Coastal Dunes	Sandy	0 - 30 meters	None due to elevation range.
<i>Leptosiphon latisectus</i>	broad-lobed leptosiphon	None	None	-	4.3	Apr - Jun	annual herb	Broadleaved upland forest, Cismontane woodland	NA	170 - 1500 meters	None due to elevation range.
<i>Ceanothus gloriosus</i> var. <i>exaltatus</i>	glory brush	None	None	-	4.3	Mar- Jun(Aug)	perennial evergreen shrub	Chaparral	NA	30 - 610 meters	None in project area. Moderate in adjacent area.

Global Conservation Status Definition

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

- G1 Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
- G3 Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
- G4 Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 Secure** – Common; widespread and abundant.
- G#G#** **Range Rank** – A numeric range range (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Infraspecific Taxon Conservation Status Ranks

- T# Intraspecific Taxon (trimomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a “T-rank” following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status)

may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon's informal taxonomic status.

Subnational (S) Conservation Status Ranks

- S1 Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.
- S2 Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.
- S3 Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 Secure** – Common, widespread, and abundant in the jurisdiction.
- S#S# Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

- ?** **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status
- Q** **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The “Q” modifier is only used at a global level and not at a national or subnational level.



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Species IS (Taxidea taxus)

Map Index Number:	70336	EO Index:	71226
Key Quad:	Shubert Peak (4012422)	Element Code:	AMA-JI-04010
Occurrence Number:	409	Occurrence Last Updated:	2007-12-17

Scientific Name:	<i>Taxidea taxus</i>	Common Name:	American badger
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNODD Element Ranks:	Global: B5 State: S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:

MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS

Micro Habitat:

NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS DIGS BURROWS.

Last Date Observed:	2007-06-23	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2007-06-23	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:

0.4 MI. SE OF UPPER MATTOLE SCHOOL.

Detailed Location:

OPEN RANGE LAND APPROXIMATELY 755 FEET NE OF THE LANDING STRIP ON MATTOLE ROAD.

Ecological:

ANNUAL GRASSLANDS ON FLAT RIVER TERRACE.

Threats:

POSSIBLE LAND OWNER PREDATOR CONTROL (FOR UNKNOWN REASONS).

General:

THE INDIVIDUAL OBSERVED WAS LOCATED AT A BURROW ENTRANCE AND WAS AGGRESSIVELY DEFENDING THE SITE (BARKED TEETH, THROWING UP DUST, RUPT CHAIRS).

PLSS:	T02S, R01W, Sec. 34 (H)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4456775 E401155	Latitude/Longitude:	40.746207 -124.16203	Elevation (feet):	320

County Summary:	Quad Summary:
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Habitat:	Shubert Peak (4012422)
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Sources:

LES97F0001 LESTER, G - FIELD SURVEY FORM FOR TAXIDEA TAXUS 2007-06-23

Occurrence Report 2 – *Strix occidentalis caurina*

Data Version Date:
07/02/2020
Report Generation Date:
1/13/2020



Report #2 - Observations Reported

List of observations reported by site.

Mendocino, Township, Range, Section (MTRS) searched:

H_03S_01W-Sections(03)

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
Masterrow: HUM1012 Subspecies: NORTHERN											
NEG	2004	2400	0					40.235750	-124.158110	H 03S 01W 03	Contributor
NEG	2004-05-03	2034- 2044	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2004-05-25	2145- 2158	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2004-06-03	2326- 2336	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2004-06-07	2248- 2258	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2004-06-15	2153- 2203	0					40.240180	-124.163850	H 03S 01W 03	Contributor
AC	2004-06-25	2300	1	UM				40.236713	-124.167654	H 03S 01W 03	Contributor
NEG	2004-06-26	1430- 1600	0					40.233992	-124.162496	H 03S 01W 03	Quarter-section centroid
NEG	2004-07-02	2031- 2205	0					40.237609	-124.167176	H 03S 01W 03	Section centroid
NEG	2004-07-07	2037- 2200	0					40.237609	-124.167176	H 03S 01W 03	Section centroid
NEG	2005-04-28	2048- 2058	0					40.235750	-124.158110	H 03S 01W 03	Contributor
NEG	2005-04-28	2233	0					40.237609	-124.167176	H 03S 01W 03	Section centroid
NEG	2005-04-28	2233- 2243	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2005-05-12	2114- 2124	0					40.240180	-124.163850	H 03S 01W 03	Contributor
NEG	2005-05-12	2127- 2137	0					40.235750	-124.158110	H 03S 01W 03	Contributor
NEG	2005-05-12	2114	0					40.237609	-124.167176	H 03S 01W 03	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2005-05-27	2108- 2118	0					40.240180	-124.163950	H 03S 01W 03	Contributor
NEG	2005-05-27	2054- 2104	0					40.235750	-124.159110	H 03S 01W 03	Contributor
NEG	2005-05-27	2108	0					40.237609	-124.167176	H 03S 01W 03	Section: centroid
NEG	2006-03-19	2030- 2040	0					40.240180	-124.163950	H 03S 01W 03	Contributor
NEG	2006-03-18	2043- 2053	0					40.235750	-124.159110	H 03S 01W 03	Contributor
NEG	2006-04-23	2109- 2119	0					40.235750	-124.159110	H 03S 01W 03	Contributor
NEG	2006-04-23	2122- 2132	0					40.240180	-124.163950	H 03S 01W 03	Contributor
NEG	2006-05-27	2106- 2116	0					40.235750	-124.159110	H 03S 01W 03	Contributor
NEG	2006-05-27	2054- 2104	0					40.240180	-124.163950	H 03S 01W 03	Contributor
NEG	2014	2400	0					40.240193	-124.169124	H 03S 01W 03	Contributor
NEG	2014	2400	0					40.227625	-124.178636	H 03S 01W 02	Contributor
NEG	2014-03-28	1900- 1910	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2014-05-14	2007- 2017	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2014-06-06	2013- 2023	0					40.233681	-124.173307	H 03S 01W 03	Contributor
POS	2014-06-19	2032	1	UM				40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2014-07-30	2013- 2023	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2014-08-14	2000- 2010	0					40.233681	-124.173307	H 03S 01W 03	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2015	2400	0					40.240193	-124.169124	H 03S 01W 03	Contributor
NEG	2015	2400	0					40.227625	-124.178636	H 03S 01W 09	Contributor
NEG	2015	2400	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2016	2400	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2016	2400	0					40.240193	-124.169124	H 03S 01W 03	Contributor
NEG	2016	2400	0					40.227625	-124.178636	H 03S 01W 09	Contributor
NEG	2017	2400	0					40.227625	-124.178636	H 03S 01W 09	Contributor
NEG	2017	2400	0					40.233681	-124.173307	H 03S 01W 03	Contributor
NEG	2017	2400	0					40.240193	-124.169124	H 03S 01W 03	Contributor
Additional surveys within the search area with no Spotted Owls detected											
NEG	2004	2400	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2005-04-28	2111- 2121	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2005-05-12	2054- 2104	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2005-05-27	2036- 2046	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2006-03-19	2059- 2109	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2006-04-23	2050- 2100	0					40.232160	-124.159550	H 03S 01W 03	Contributor
NEG	2006-05-27	2035- 2045	0					40.232160	-124.159550	H 03S 01W 03	Contributor

Type	Date	Time	#Adults	AgeSex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2014	2400	0					40.244580	-124.176180	H 03S 01W 03	Contributor
NEG	2015	2400	0					40.244590	-124.176190	H 03S 01W 03	Contributor
NEG	2016	2400	0					40.244590	-124.176190	H 03S 01W 03	Contributor
NEG	2017	2400	0					40.244590	-124.176190	H 03S 01W 03	Contributor