

CONFIDENTIAL

BIOLOGICAL ASSESSMENT REPORT

Assessor Parcel Number (APN):

205 - 231 - 029

Apps 16475



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Date Prepared:

June 25th, 2020

Certification: I hereby certify that the statements furnished in this report present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

X Mason London

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Table of Contents

SECTION 1 SUMMARY OF FINDINGS AND CONCLUSIONS.....	3
SECTION 2 INTRODUCTION, BACKGROUND, AND PROJECT UNDERSTANDING	4
2.1 PURPOSE AND NEED	4
2.2 BIOLOGIST'S QUALIFICATIONS	4
2.3 PARCEL AND PROJECT SITE DESCRIPTION	4
2.4 CULTIVATION	6
2.5 WATER COLLECTION AND STORAGE	6
SECTION 3 METHODS	7
3.1 PRE-SITE VISIT DATA COMPILATION AND PREPARATION	7
3.2 BIOLOGICAL RESOURCE AND HABITAT INVESTIGATION	7
3.2.1 Project Site Description.....	7
3.2.2 Sensitive Species	8
SECTION 4 RESULTS AND DISCUSSION	9
4.1 HABITAT AREA AND EXISTING SITE CONDITIONS	9
4.1.1 Terrestrial	9
4.1.2 Hydrologic and Aquatic.....	10
4.1.3 Sensitive Species and Habitats	11
4.2 SPECIAL STATUS PLANT SPECIES.....	11
4.3 SPECIAL STATUS ANIMALS SPECIES	13
4.3.1 Other Special Status Animal Species.....	15
4.4 SPECIAL STATUS HABITAT COMMUNITIES.....	16
SECTION 5 CONCLUSION.....	17
5.1 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION.....	17
5.1.1 Potential Direct Impacts	17
5.1.2 Potential Indirect Impacts.....	17
5.1.3 Recommendations.....	17
SECTION 6 REFERENCES.....	19
APPENDIX A: PHOTOS	21
APPENDIX B: MAPS	25
APPENDIX C: TABLES	29
APPENDIX D: OCCURRENCE REPORTS	43

Section 1 Summary of Findings and Conclusions

The project applicant seeks a Conditional Use Permit (CUP) for 43,560 ft² of proposed new outdoor commercial cannabis cultivation and a Zoning Clearance Certificate (ZCC) for relocation of 13,500 ft² of existing outdoor cultivation from APN: 033-081-051.

The proposed project site is located approximately 2.95 air miles southeast of Scotia, California in Humboldt County. The proposed project site location has been cultivated for a period of time of over a century or longer. 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 site, and the habitat observed, 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. No sensitive or special status vegetation was observed during the site visit nor will be removed within the project site or in the adjacent area for this 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 57,060 ft² of outdoor cannabis over one project site location. Even though the site has had agricultural practices conducted at this location for over a century, all Humboldt County commercial cannabis cultivation applications, under the *Application Requirements Cannabis 2.0*, require a "Biological Reconnaissance Survey for Special Status Species and Sensitive Habitat." This document reports on the investigation and findings of the biological resource and habitat quality on the parcel and the project area. This report also addresses the status and potential utilization of the project area by special status plant and animal species found within the region.

This document has been prepared in accordance with legal requirements set forth under Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c). Under this subsection (c), it is stated that "...based on the best scientific and commercial data available, that such species [which are listed or proposed to be listed] may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which is likely to be affected by such action. Such assessments shall be completed ... before any contract for construction is entered into and before construction is begun with respect to such action."¹

2.2 Biologist's Qualifications

The biological assessment for this report was conducted by Mason London. Mason is the primary biological consultant of Naiad Biological Consulting. Mason holds a Master of Science Degree in Biology with a concentration in aquatic ecology from Humboldt State University. Mason has 10 years of experience working professionally as a botanist, wildlife biologist, aquatic ecological research scientist, and has instructed ecological field and classroom 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 sensitive species as well as overall

¹ Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c): <https://www.fws.gov/endangered/laws-policies/section-7.html>

habitat quality and habitat modification. In this regard, habitat quality directly relates to the distribution of individuals in space and influences the potential for resource acquisition. Habitat modification, both positive and/or negative, refers to the changes in habitat quality, which can induce changes in species acquisition of resources. Other project related aspects, such as irrigation source, site location and cultivation methods were assessed in terms of ecological and biological impact.

The parcel (APN: 205-231-029) where the proposed project site is to occur is 11.66 acres (per Humboldt WebGIS) and located approximately 2.95 air miles southeast of Scotia, California in Humboldt County. The project area is located in Section 22, Township 1 North, Range 1 East (S22, T1N, R1E) of the Humboldt Base and Meridian (HBM) and in the Scotia 7.5-minute USGS quadrangle (Quad code: 4012441). The parcel occurs within the Eel River watershed (CDFW Region: 1), which is a coastal river draining into the Pacific Ocean approximately 18.50 air miles northwest of the parcel. The center location of this parcel is 40°27'31.1"N 124°03'11.0"W. The elevation of the center of the proposed project site is approximately 120 feet (~36.5 meters) above sea level (Google Earth Pro, 2020). The Current General Plan of the parcel is Agriculture Exclusive (AE). Parcels with AE general plans apply "... to bottomland farms and lands that can be irrigated; also used in upland areas to retain agricultural character. Typical uses include dairy, row crops, orchards, specialty agriculture, and horticulture," (2017 Humboldt County General Plan, 2017). The combined zoning of this parcel is Agriculture Exclusive (AE) and Flood Hazard Areas (F). Parcels with an AE zone must have a "...proposed use [that] will not impair the continued agricultural use on the subject property or on adjacent lands or the economic viability of agricultural operations on the site," (Section 18.1.1 Humboldt County Zoning Regulations, 2020). Parcels with a F zone are applied to "...all lands situated within the areas of special flood hazard as identified on the Federal Insurance Administration's Federal Insurance Rate Maps (FIRM) for Humboldt County," (Section 314-21.1 Humboldt County Zoning Regulations, 2020). The proposed project site is within the 100-year flood zone. A 100-year flood is defined as "[a] flood having a one percent (1%) chance of being equaled or exceeded in any given year," (Section 313-141 Humboldt County Zoning Regulations, 2020).

The proposed project at this parcel, investigated in this biological assessment, consists of the cultivation of approximately 57,060 ft² of outdoor cannabis in one location within an open field which has been utilized for agricultural purposes for over a century.

For the remainder of this report *project site* will refer to the location of potential disturbance from direct action or interface with the environment, whereas *project area* will refer to the extent of the project (which will include the project site and surrounding area) that has the potential to be directly or indirectly disturbed from project related activities.

2.4 Cultivation

All cultivation for the proposed project will occur within 10 ft X 100 ft non-permanent hoop greenhouses (Map 1). These hoop greenhouses are only permitted to be constructed for a period of time up to 180 days. The Planning and Building Department has amended the Flood Damage Prevention Regulations Section 335-5 of the Humboldt County Code to allow placement of temporary structure in mapped Flood Hazard Areas for up to 180 days between April 16 through October 15. The client will have all hoop greenhouse material removed within the flood hazard zone by October 16 in order to avoid violations and fines.

All cannabis for this project will be cultivated directly into the ground in amended soil. The cannabis will be cultivated following light deprivation methods. The cannabis will be supplemented with artificial light for approximately the first 1 to 3 weeks of cultivation. Regardless of the limited time these artificial lights will be utilized, the applicant will completely cover all hoop greenhouses when lit in order to eliminate light pollution. The parcel currently is hooked up to PG&E grid power, but the client will get a 400 Amp power drop upgrade. This grid power will be used for wattage to power the supplemental lights and therefore no generators will be used for this operation, eliminating any potential for sustained noise pollution. Furthermore, no fans will be used in these hoop greenhouses and will therefore not generate any noise.

Of the total 57,060 ft² of outdoor cannabis proposed to be cultivated for this project, 43,560 ft² (comprised of forty two (42) 10 ft X 100 ft and one (1) 10 ft X 56 ft temporary hoop greenhouses) is being proposed as new cultivation, and 13,500 ft² (comprised of thirteen (13) 10 ft X100 ft and one (1) 10 ft X 50 ft temporary hoop greenhouses) will be cultivated as relocated cultivation from APN: 033-081-051 (Map 1).

Given the historic disturbance from intensive agricultural in the area of the proposed project, no activities associated with this project are anticipated to cause further disturbance to the habitat quality, or the surrounding environment, in anyway.

2.5 Water Collection and Storage

Water for cultivation will be derived from a permitted well. The upgraded 400 Amp PG&E power drop will be used to pump water from the well. There are no foreseeable impacts to the surrounding environment, habitat or wildlife based upon this water source for irrigation.

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 Biogeographic Information and Observation System (CNDDDB BIOS)(CDFW, 2020), the United State Fish and Wildlife Service Information for Planning and Conservation (IPaC, USFWS 2020) and Calflora Project (Calflora, 2020) for the USGS Scotia 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 Scotia quadrangle, and the 8 adjacent quadrangles, resulted in 54 special status animal species (4 amphibians, 20 birds, 7 fishes, 2 insect, 16 mammals, 4 mollusks, 1 reptile) (Appendix C -Table 1), 37 special status plant (1 Bryophyte, 1 lichen, 35 Vascular) (Appendix C - Table 2) and 0 special status habitat.

3.2 Biological Resource and Habitat Investigation

A biological resource and habitat investigation was conducted at the parcel where the project site occurs between 1400 and 1530 on June 16, 2020 (Map 2). The weather was sunny and clear. The goal of the investigation was not to conduct a complete botanical field survey for special statues plants species, but rather to determine suitable habitat for potential species within the project area, and document any of these species' occurrences. Habitat and habitat characteristic for the proposed project site and the adjacent area was investigated (Map 2). 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 Description

All activities associated with this project will occur within an approximately 3.5-acre field which has been severely degraded from its natural habitat by of agricultural cultivation for at least the last century, if not longer (Figure 1). The project location has a slope less than 15% and is comprised of all prime agriculture soil. No sensitive vegetation will be removed from this site, or within the surrounding area, for this proposed project. The project site location was determined to be in environmentally adequate for cultivation based on the surrounding habitat, observed species, and the sites setback to watercourses. The project site gets regularly mowed to combat the growth of vegetation within the agricultural field. 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, or its quality, in anyway.

3.2.2 Sensitive Species

Based on habitat features observed, of the 54 special status animal species, 13 have a moderate potential of occurring at or within the project site and 2 have a high potential of occurring at or within the project site with additional species having potential to occur adjacent to the project area. Of the 37 special status plant species, 7 had a moderate potential of occurring at or within the project site with additional species having the potential to occur adjacent to the project area.

Although no sensitive or special status species were observed during the field survey, the timing of the survey was outside the blooming period for some species on the CNDDDB and Calflora lists and therefore this field survey may affect the comprehensiveness of the results. However, the field survey also assessed suitable habitat for potential species within the project area. Of the 7 species whose habitat requirements fit the description of the project site, their phenological bloom period occurs during the time of the site visit and none of these species were observed. Further detail regarding these species' potential occurrence within the project site and surrounding area is explained in *Section 4.2 Special Status Plant Species*.

The investigation of special status species to occur within the project site was conducted in a "focused survey" fashion, since a list of potential occurring species was obtained prior to the site visit and because all of the potential species that could occur within the project area were in bloom at the time of the field survey. According to the CDFW protocol, "[f]ocused surveys' are limited to habitats known to support special status plants or that are restricted to lists of likely potential special status plants are not considered floristic in nature and are not adequate to identify all plants in a project area to the level necessary to determine if they are special status plants," (CDFW, 2018). A focused survey is an on-site survey that is limited in scope, content, length and designed to gather information on a specific issue(s). Due to the known habitat requirements of the focal species for this survey, the habitats were targeted based on predetermined features. Therefore, a meandering, or wandering transect, approach to the survey was implemented in order to cover all habitats that could potentially harbor these 7 species (Map 2). This wandering transect was walked with the intentional bias of seeing these species previously mentioned.

Section 4 Results and Discussion

4.1 Habitat Area and Existing Site Conditions

The habitat investigated within the parcel is dominated by an agricultural field and a riparian corridor habitat. The entire northern boundary of the parcel is defined by the riparian corridor of the Eel River, which is a Class I perennial watercourse (Map 1 & 2). During the field survey the parcels habitats were investigated for habitat quality and species presence, and the findings are described in more detail in Section 4.1.1.

4.1.1 Terrestrial

Due of the history of cultivation, and therefore a regularly occurring disturbance regime, the project site is dominated by many nonnative species. This habitat is unlikely to harbor any sensitive and/or rare plant or animal species due to the nature of disturbance. However, several vegetated communities exist surrounding the agricultural field beyond the project site that were also assessed for species occurrence potential. No vegetation or tree removal outside of the agricultural field is proposed and it is not anticipated that any vegetated communities outside of the field will be impacted by the project.

The main dominate species within the regularly mowed and cultivated agricultural field observed were Kentucky bluegrass (*Poa pratensis*), scarlet pimpernel (*Anagallis arvensis*), white clover (*Trifolium repens*), immature Himalayan blackberry (*Rubus armeniacus*), Carolina geranium (*Geranium carolinianum*), cutleaf geranium (*Geranium dissectum*), sheep sorrel (*Rumex acetosella*) and narrowleaf plantain (*Plantago lanceolata*), oxeye daisy (*Leucanthemum vulgare*), coyote brush (*Baccharis pilularis*), curly dock (*Rumex crispus*), false dandelion (*Hypochaeris radicata*), velvet grass (*Holcus lanatus*), wild carrot (*Daucus carota*), bull thistle (*Cirsium vulgare*) milky oats (*Avena sativa*), yarrow (*Achillea millefolium*), horse tail (*Equisetum spp.*), fennel (*Foeniculum vulgare*), tall fescue (*Festuca arundinacea*), and Woods' rose (*Rosa woodsia*) (Figure 2 & 3). Not all species were recorded since this survey was a focused survey targeting the species listed in Section 4.2.

The transitional habitat from the agricultural field to the riparian habitat, as well as the riparian habitat, that separates the parcel from the Eel River, occurs along a terraced slope and is dominated by Pacific willow (*Salix lucida*), coast redwood (*Sequoia sempervirens*), Douglas fir (*Pseudotsuga menziesii*), red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*) and a few flowering big leaf maples (*Acer macrophyllum*) and eucalyptus (*Eucalyptus spp.*) (Figure 4). In the thick understory and margins of the riparian habitat, observed dominate species were coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), Himalayan blackberry, pennyroyal (*Mentha pulegium*), western sword fern (*Polystichum munitum*), creeping bentgrass (*Agrostis stolonifera*), English ivy (*Hedera helix*), wild teasel (*Dipsacus fullonum*), fennel (*Foeniculum vulgare*),

field mustard (*Brassica rapa*), thimbleberry (*Rubus parviflorus*), milky oats, tall fescue, wild carrot, Italian thistle (*Carduus pycnocephalus*), buttercup (*Ranunculus spp.*), stinging nettle (*Urtica dioica*), and chickweed (*Stellaria media*) (Figure 5 & 6). No listed special status species were observed during this survey. Only the dominate species within this habitat were recorded since this survey was not floristic in nature and because this habitat occurred outside of the project area and therefore is outside of the area of potential impact from any activities associated with this proposed project. Though this habitat has the potential to harbor sensitive species, such as nesting birds who prefer riparian habitats (see Appendix C - Table 1) and special status plant species that utilize riparian habitats, this habitat occurs at a minimum of 50 feet set back from this habitat in order to not impact the potential occurring species and to be set back from the Eel River the required buffer distance. The proposed project will be adequately set back from this habitat and therefore there is no anticipated impacts associated with any of the proposed activities

Even though some of these species observed in the agricultural habitat (both cultivated field and margins) are native, nonnative species dominate these habitats and given the long history of disturbance associated with cultivation 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.

No listed special status plant species were observed during the field survey, and based on the findings from this survey, it is unlikely that any sensitive species currently not in bloom would utilize the observed habitat of the project area based on these species' elevation, habitat and micro-habitat requirements.

Because of the species observed, and since no sensitive species or sensitive habitats were found within the project area, no further botanical surveys are recommended before ground-disturbing activities commence.

4.1.2 Hydrologic and Aquatic

The Eel River (Class I watercourse) is located north of the proposed projects (Map 1 & 2) and north of the riparian habitat (Figure 7). The applicant will develop the cultivation site outside of the required buffer at approximately 200 ft away. The nearest boundary of this site to the nearest bankfull edge of watercourse will therefore be adequately setback and in accordance to the most conservative 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 1). As a result of the applicant

adhering to this setback, and given the proposed cultivation methods, there will be no anticipated impacts to the aquatic habitat in association with the activities of the proposed project.

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.

4.2 Special Status Plant Species

Potential habitat for 7 special-status species exist within the project area. These species include Harlequin lotus (*Hosackia gracilis*), Kellogg’s lily (*Lilium kelloggii*), maple-leaved checkerbloom (*Sidalcea malachroides*), Siskiyou checkerbloom (*Sidalcea malviflora ssp. patula*), Howell’s montia (*Montia howellii*), nodding semaphore grass (*Pleuropogon refractus*), and Pacific gilia (*Gilia capitata ssp. pacifica*). Note that none of these species were observed during the site visit investigation.

Harlequin lotus (*Hosackia gracilis*) has a moderate potential of occurring at the project site. Its elevation range is between 0 and 700 meters and is known to occur in broadleafed upland forests, coastal bluff scrub, closed-cone coniferous forests, cismontane woodlands, coastal prairies, coastal scrubs, North Coast coniferous forests and valleys and foothill grasslands. Specifically, *Hosackia gracilis* can be found in wetlands, roadsides, meadows, seeps, marshes and swamps. While habitat for this species does exist within the agricultural field at the project site, the history of disturbance and ongoing cultivation and mowing of the field for over a century makes it highly unlikely that this species would occur at the project site. The potential habitat areas surrounding the project site will not be disturbed by this proposed project. Also, this species was only recorded to occur within the Hydesville 7.5 USGS Quad. The site visit occurred during the bloom period for this species and it was not observed at the time of the site investigation.

Kellogg's lily (*Lilium kelloggii*) has a moderate potential of occurring at the project site. Its elevation range is between 3 and 1300 meters and is known to occur in lower montane coniferous forests and north coast coniferous forests. *Lilium kelloggii* can also be found in vegetated openings and along roadsides. Even though potential habitat for *Lilium kelloggii* may be present on the perimeter of the agricultural field, the history of disturbance and ongoing cultivation of the field, for over a century makes it highly unlikely that this species would occur at the project site. The potential habitat areas surrounding the project site will not be disturbed by this proposed project. Furthermore, the site visit occurred during the bloom period for this species and it was not observed.

Maple-leaved checkerbloom (*Sidalcea malachroides*) has a moderate potential of occurring at the project site. Its elevation range is between 0 and 730 meters and is known to occur in broadleafed upland forests, coastal prairies, coastal scrubs, North Coast coniferous forests, and riparian woodlands and also is often found in disturbed areas. Even though this species often resides in disturbed areas, the level and frequency of disturbance, due to the history of ongoing cultivation of the field for over a century, makes it highly unlikely that this species would occur at the project site. Also, *Sidalcea malachroides's* bloom period occur at the time of the site visit and no individuals were observed during the site investigation. 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 coastal bluff scrub, coastal prairies, North Coast coniferous forests, and also found in roadcuts. While habitat for this species does exist within the agricultural field at the project site, the history of disturbance and ongoing cultivation of the field for over a century makes it highly unlikely that this species would occur at the project site. The potential habitat

areas surrounding the project site will not be disturbed by this proposed project. Also, this specie's bloom period occurred during the time of the site visit and no individuals were observed.

Howell's montia (*Montia howellii*) has a moderate potential of occurring at the project site. Its elevation range is between 0 and 880 meters and is known to occur in North Coast coniferous forests, meadows, seeps, vernal pools, and vernal mesic areas. While habitat for this species does exist within the agricultural field at the project site, the history of disturbance and ongoing cultivation of the field for over half a century makes it highly unlikely that this species would occur at the project site. The potential habitat areas surrounding the project site will not be disturbed by this proposed project. Furthermore, the site visit occurred during the bloom period for this species and it was not observed.

Nodding semaphore grass (*Pleuropogon refractus*) has a moderate potential of occurring at the project site. Its elevation range is between 0 and 1600 meters and is known to occur in lower montane coniferous forests, meadows and seeps, and North Coast coniferous forests. It is also found in mesic riparian forests. While habitat for this species does exist within the agricultural field at the project site, the history of disturbance and ongoing cultivation of the field for over a century makes it highly unlikely that this species would occur at the project site. 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 agricultural field at the project site, the history of disturbance and ongoing cultivation of the field for over a century makes it highly unlikely that this species would occur at the project site. The potential habitat areas surrounding the project site will not be disturbed by this proposed project. Furthermore, the site visit occurred during the bloom period for this species and it was not observed.

4.3 Special Status Animals Species

Of the species generated from the CNDDDB list for the Scotia 9-quad search, 13 special status animal species have a moderate potential of occurrence within the project site based on the habitat that exists within the project location. Of these 13 species, 10 are either birds or bats and would only utilize the project site for hunting and would otherwise only fly over the site (Appendix C -Table 1). These species would not utilize the project site for nesting or shelter due to the void of canopy cover and other structures. The 2 species with a high potential of occurring at the project site are the tricolored blackbird (*Agelaius tricolor*) and the grasshopper sparrow (*Ammodramus savannarum*), which both utilize agricultural fields or cultivated grasslands as habitat. Since the

applicant is not proposing to alter or modify the current habitat quality from its present state of an agricultural field, there is not anticipated impacted to either of these two species (Appendix C -Table 1). Moreover, due to the cultivation methods of this proposed project avoiding noise pollution and mitigating for light pollution, there is no potential take of these species from indirect disturbance. Therefore, it is not expected these 10 species with a moderate potential of occurrence, or the 2 species with a high potential of occurrence, will be negatively impacted in anyway but the proposed project. The remaining 3 special-status species include the Western Bumblebee (*Bombus occidentalis*), the North American porcupine (*Erethizon dorsatum*) and the American badger (*Taxidea taxus*).

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. Due to the project areas regular disturbance regime, it is unlikely that there would be a significant loss of nesting habitat as a result of the project. No new practices will impact this species any more than have by the previous history of cultivation done within this project area. Furthermore, it is unlikely that the project would result in a significant decrease in forage material. 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 nearby and could pass through the project site while foraging, the lack of cover within the project area makes it unlikely that this species would utilize open field habitat. Also, the frequent human activity that occurs within the project area proximity likely results in *Erethizon dorsatum* not utilizing the site. It is not anticipated that the project will negatively impact this species.

The **American badger (*Taxidea taxus*)** is most abundant in drier open stages of most shrub, forest, and herbaceous habitats. *Taxidea taxus* requires sufficient food, friable soils (soils with a crumbly texture) and open, uncultivated ground. This species preys on burrowing rodents and digs burrows. Though the habitat of the project site is suitable for *Taxidea taxus*, the history intensive agriculture, resulting a regularly occurring disturbance regime makes it likely that this species would not utilize the project site for burrowing and hunting. The surrounding suitable habitat (the forested margins and less disturbed areas) will not be disturbed in anyway related to this project's proposed activities and therefore this species is still capable of existing within the parcel without a negative impact. Furthermore, the frequent human activity that occurs near the project area likely results in *Taxidea taxus* not utilizing the site. It is not anticipated that the project will negatively impact this species.

4.3.1 Other Special Status Animal Species

The nearest known **northern spotted owl (*Strix occidentalis caurina*)** Activity Center (HUM0830), according to the most up to date CNDDDB Spotted Owl Viewer, is approximately 0.65 air miles from the proposed project site (Map 3; Occurrence Report 2). *Strix occidentalis caurina* 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 on the parcel is not dominated by this forest type, and is therefore not preferred for nesting or roosting 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 mitigate all noise and light pollution, 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. Furthermore, this proposed project is surrounded by residential houses and county roads and highways that likely cause more indirect disturbance to this species than any activities associated with the proposed project.

According to the CNDDDB BIOS viewer, there are two species occurrences buffered that encompass the entire project site: **northern red-legged frog (*Rana aurora*)** and **bank swallow (*Riparia riparia*)** (Map 4). The *Rana aurora* occurrence was documented in 1955 and was given an accuracy buffer of 2/5-miles since the location of this occurrence vaguely states that this species was observed in the "[v]icinity of Stafford and the Eel River, 3.5 miles SE of Scotia along highway 101," (Occurrence Report 2). Like previously mentioned, the location of the project site is within the proximity of a preexisting agricultural field and therefore no activities proposed will impact the preexisting habitat quality. Therefore, *Rana aurora* is not anticipated to be impacted by any activities associated with this proposed project.

The *Riparia riparia* occurrence was documented in 1946 and was given an accuracy buffer of 5 miles likely due to the home range of this species. This observation was recorded at the Van Duzen River, yet the exact location of this observation was unknown so the center of the 5-mile buffer was placed at the "...mouth of the Van Duzen River (about 10 air miles) to Rook Creek," (Occurrence Report 3). This species requires vertical banks or cliffs with fine textured or sandy soils near streams and rivers in order to dig their nesting holes. There is no habitat that

fits this description near the project site or the parcel and therefore this species would only utilize the project sites airspace for flying over. Because of this, it is not anticipated that any activities associated with the development of this proposed project will impact this species in anyway.

4.4 Special Status Habitat Communities

No special status habitat communities were identified in the CNDDDB BIOS search in the 7.5-minute USGS Scotia quadrangle, and the 8 adjacent quadrangles.

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. Since grading will occur in association with the cultivation plan, direct impacts will occur to the environment. However, given the preexisting quality of the habitat being modified by intensive agriculture for over a century, and subsequently rendering no special status species, the activities that will occur at this location will have no negative impacts to sensitive habitats or severely alter the already disturbed habitat quality any more than it already has been. Given the preexisting disturbance to the project site, and the fact that no sensitive vegetation will be removed within and surrounding the project site, 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 is capable of improving the surrounding environment and habitat by removing these invasive species during the project site development process, and ultimately halting their spread. Because of these factors, the activities associated with the cultivation at the proposed site would only potentially have direct impacts as disturbance-based.

Common disturbance-based impacts include noise and light pollution. For the proposed project, no continuous noise (above 70 dB to the nearest tree line) or light will be generated in association with this project, due to the hoop greenhouses being completely covered when artificially lit and the use of PG&E grid power. Therefore, there will be no expected disturbance-based impacts to the surrounding wildlife or habitats.

5.1.2 Potential Indirect Impacts

Given the existing habitat and environment of the parcel, the projects irrigation source from a permitted well, and the existing disturbance to the proposed cultivation site, the 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 impacts or concerns to the environment based on the location of the proposed project site or with the activities associated with the cultivation process. If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and USFWS can further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to

the Humboldt County Cannabis Program EIR, CDFW Survey and Monitoring Protocols and Guidelines, which can be located here: <https://www.wildlife.ca.gov/conservation/survey-protocols>

It is recommended that the applicant follow the procedures for eradicating the invasive species identified in the associated Invasive Species Control Plan document required under the *Application Requirements Cannabis 2.0*. The location of the proposed project is 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. Photo taken at the western side of proposed project site location facing east showing the agricultural field where the entire project is proposed to occur.



Figure 2. Photo showing the dominate habitat type within the project site. Photo taken on the northern center of the project site facing southwest.

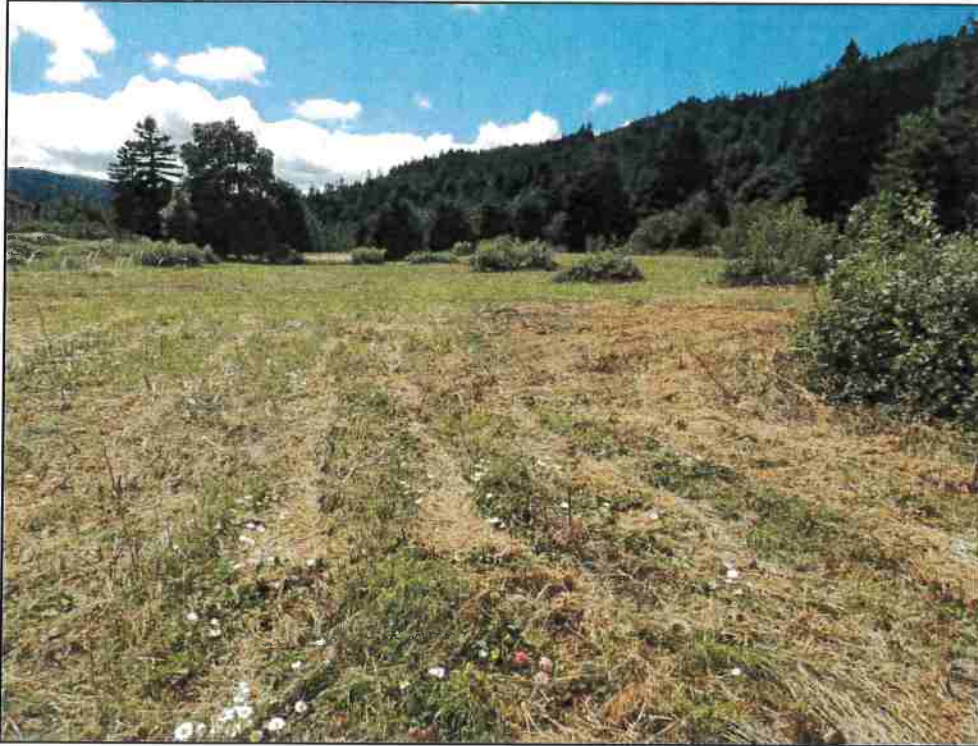


Figure 3. Photo showing the habitat type of the project site. Note the mowed species and the visible alteration from its natural state due to over a century of cultivation.



Figure 4. A few of the dominate tree species in the transitional zone from the agricultural field to the riparian corridor. Photo taken on the northern edge of the agricultural field facing northeast.



Figure 5. The densely vegetated understory habitat in the riparian corridor.

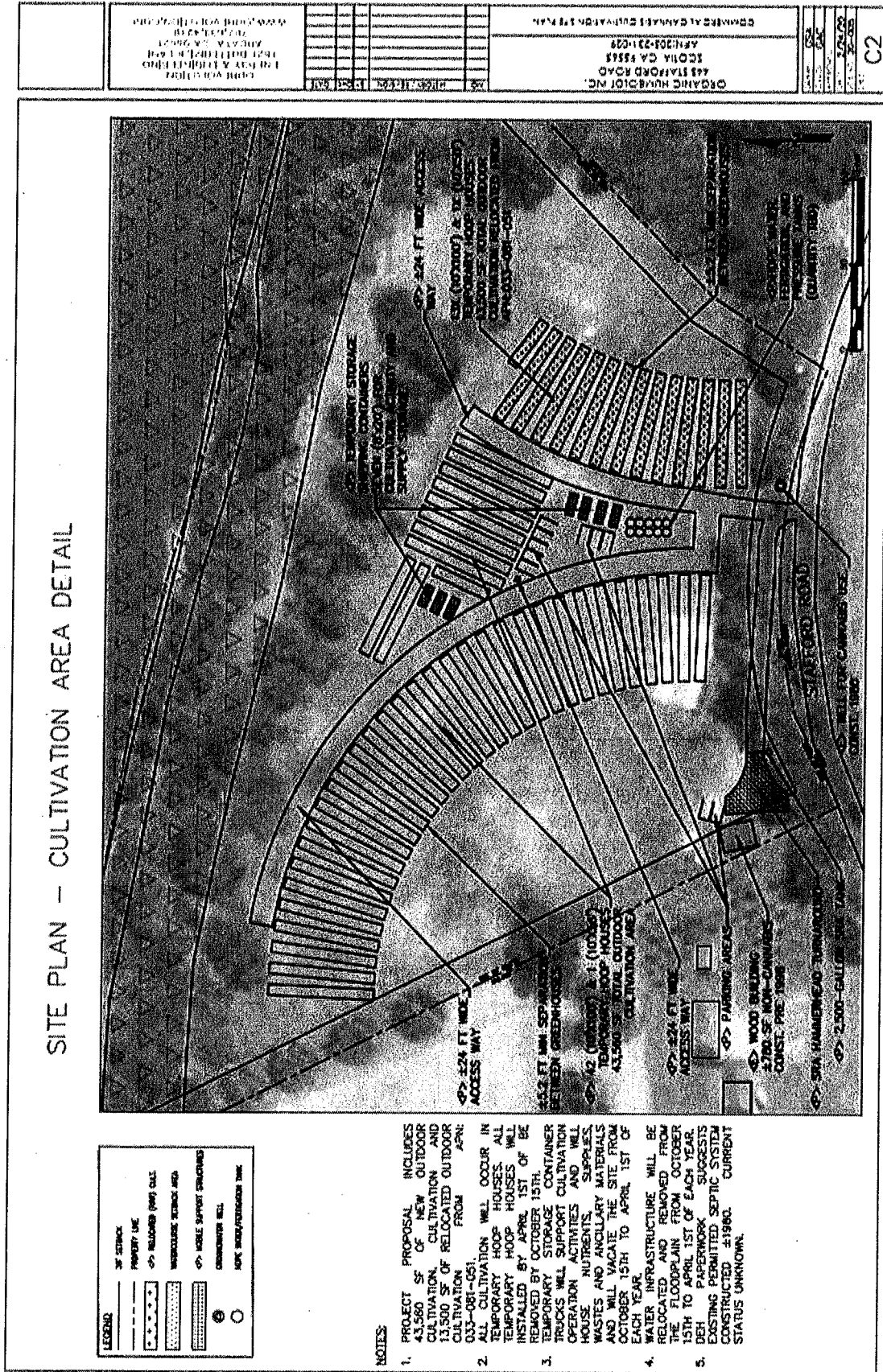


Figure 6. The dense understory vegetation in the transitional zone from the agricultural field to the riparian corridor.



Figure 7. The Eel River through the dense riparian vegetation.

Appendix B: Maps



Map 1. The general site plan for the proposed project at APN 205-231-029. (This is not a parcel survey, plan was created by Curevolution Energy & Engineering)



ArcGIS Web Map

Humboldt County Planning and Building Department
 Printed: June 24, 2020 Web AppBuilder 2.0 for ArcGIS
 Map Disclaimer: While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, and of a question, should any, difference or error occur, the law will take precedence.

Highways and Roads:

- Principal Arterials
- Minor Arterials
- Major Collectors
- Minor Collectors
- Local Roads
- Private or Unclassified
- Major River or Stream
- Blue Line Streams
- Perennial 1-3
- Perennial >4
- Intermittent
- Subsurface
- City Boundary
- Counties
- Parcels

Scale: 0 87.5 175 350 Feet
 0 0.015 0.03 0.06 Miles
 RF = 1:2,257 1 in = 188 ft

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

Biological Assessment Survey Path completed on June 16th 2020

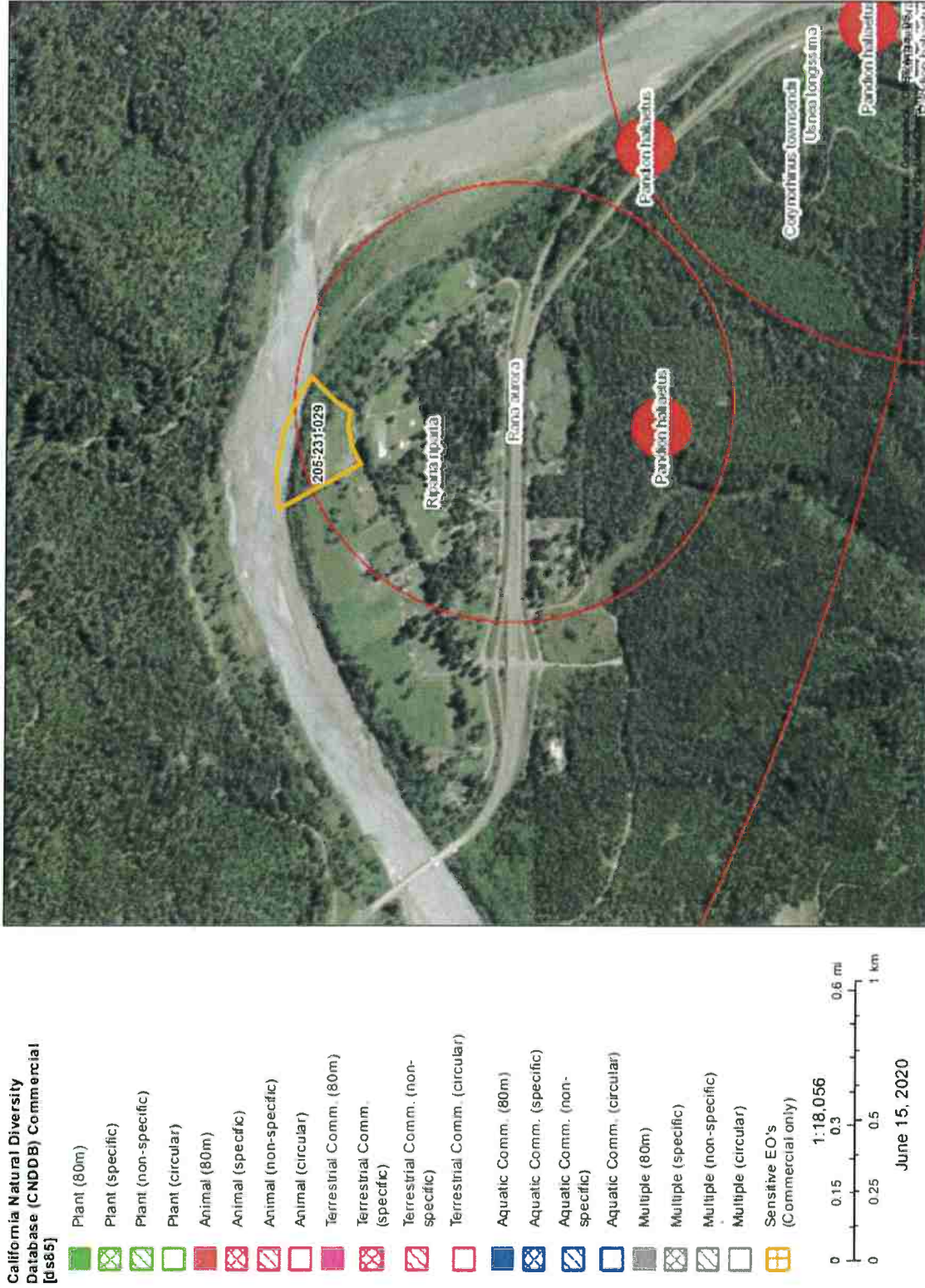
Map 2. The general path taken during the biological survey and site visit investigation on June 16th, 2020. (This is not a boundary survey, property lines shown here are approximated and taken from Humboldt County Web GIS).

Nearest Spotted Owl Activity Center to Project Site



Map 3. Distances from project site to the nearest Northern Spotted Owl Activity Center. (This is not a boundary survey, property lines shown here are approximated from Humboldt County Web GIS)

Surrounding Special Status Species Occurrences



Map 4. The parcel with the surrounding area showing occurrence of observed sensitive species. (This is not a boundary survey, property lines shown here are approximated from Humboldt County Web GIS)

Appendix C

Table 1 – Special Status Animal Species – June 2020 – APN 205-231-029—Scotia 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.	None in project site. Low in adjacent area.
<i>Rana aurora</i>	northern red-legged frog	None	None	SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds. Occurs along the Coast Ranges from Del Norte County to Mendocino County, usually below 1200 m (3936 ft).	Low in project site. 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, valleyfoothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	Low in project site. 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.	None in project site. 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 project site (flyover). High adjacent area.
<i>Accipiter gentilis</i>	northern goshawk	None	None	SSC	Prefers middle and higher elevations, and mature, dense conifer forests. Casual in winter along north coast, throughout foothills, and in northern deserts, where it may be found in pinyon-juniper and low-elevation riparian habitats.	Low due to elevation
<i>Accipiter striatus</i>	sharp-shinned hawk	None	None	WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter.	Moderate project site (flyover). Moderate 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-juniper flats, desert.	Low project site (flyover). low adjacent area.
<i>Circus hudsonius</i>	northern harrier	None	None	SSC	Marshes, fields, prairies. Found in many kinds of open terrain, both wet and dry habitats, where there is good ground cover. Often found in	Low in project site due to regularly

<i>Haliaeetus leucocephalus</i>	bald eagle	Delisted	Endangered	FP	marshes, especially in nesting season, but sometimes will nest in dry open fields.	occurring, mowing and cultivation disturbance. Moderate fly over and surrounding area.
<i>Brachyramphus marmoratus</i>	marbled murrelet	Threatened	Endangered	-	Permanent resident, and uncommon winter migrant, now restricted to breeding mostly in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity cos. About half of the wintering population is in the Klamath Basin. More common at lower elevations 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).	Low project site (flyover). Low/Moderate 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 project site (flyover). High adjacent area.
<i>Nycticorax nycticorax</i>	black-crowned night heron	None	None	-	Black-crowned Night-Herons are common in wetlands across North America, including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, canals, reservoirs, and wet agricultural fields. They require aquatic habitat for foraging and terrestrial vegetation for cover.	Low in project site. High in adjacent area.
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	Threatened	None	SSC	The Pacific coast population of western snowy plovers breeds on coastal beaches from southern Washington to southern Baja California, Mexico. In winter, western snowy plovers are found on nesting beaches, man-made salt ponds, and on estuarine sand and mud flats.	Low in project site. Low in adjacent area.
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted	FP	Breeds near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, mounds. Nest is a scrape on a depression or ledge in an open site. Will nest on human-made structures, and occasionally uses tree or snag cavities or old nests of other raptors.	Low project site (flyover). High adjacent area.
<i>Riparia riparia</i>	bank swallow	None	Threatened	-	A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast; an uncommon and very local summer resident. Casual in southern California in winter; a few winter records along central coast to San Mateo Co. (McCaskie et al. 1988). In summer, restricted to riparian,	Low project site (flyover). Low adjacent area.

<i>Agelaius tricolor</i>	tricolored blackbird	None	Threatened	SSC	lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. Historically Tricolored Blackbirds nested in wetlands with cattails, bulrushes, and willows, but as wetlands were converted to agricultural fields, towns, and business parks they started nesting in agricultural fields. Foraging habitats include cultivated fields, feedlots associated with dairy farms, and wetlands.	High in project site (flyover and foraging). Moderate adjacent area.
<i>Icteria virens</i>	yellow-breasted chat	None	None	SSC	Uncommon along coast of northern California east to Cascades and occurs only locally south of Mendocino Co. (McCaskie et al. 1979).	Low project site (flyover). Moderate/high adjacent riparian area.
<i>Pandion haliaetus</i>	osprey	None	None	WL	Riparian forest. Ocean shore, bays, lakes and larger freshwater streams.	Moderate project site (flyover). High adjacent area.
<i>Poecile atricapillus</i>	black-capped chickadee	None	None	WL	Black-capped chickadees are found in deciduous and mixed deciduous-evergreen forests, especially near forest edges. They are commonly found near willows and cottonwoods, and like to make their nests in the snags of alder and birch trees. Feeders and nest boxes can be used to attract chickadees to suburban backyards.	Low project site (flyover). Moderate/high adjacent riparian area.
<i>Setophaga petechia</i>	yellow warbler	None	None	SSC	Breeds in riparian woodlands from coastal and desert lowlands up to 2500 m (8000 ft) in Sierra Nevada. Also breeds in montane chaparral, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush.	Low project site (flyover). Moderate adjacent area.
<i>Ammodramus savannarum</i>	grasshopper sparrow	None	None	SSC	Grasshopper sparrows utilize prairie and cultivated grasslands, weedy fallow fields, and alfalfa fields.	High project site (flyover and foraging). Moderate adjacent area
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	Threatened	Threatened	-	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 project site (flyover). Moderate/high adjacent area.
<i>Empidonax traillii</i>	willow flycatcher	None	Endangered	-	Often near streams or marshes (especially in southern part of range), but may be found in drier habitats than Alder Flycatcher. Winters	Low project site (flyover). Moderate/high

							around clearings and second growth in the tropics, especially near water.	adjacent riparian area.
Fish								
<i>Spirinchnus thaleichthys</i>	longfin smelt	Candidate	Threatened	-			diverse habitats north of the Bay-Delta such as coastal lagoons, bays, estuaries, sloughs, tidal freshwater streams and offshore (Garwood 2017).	None in project site. Moderate in adjacent area.
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	SSC			Pacific lampreys spawn in similar habitats to salmon; in gravel bottomed streams, at the upstream end of riffle habitat, typically above suitable young larvae (ammocoete) habitat. Spawning occurs between March and July depending upon location within their range. T	None in project site. High in adjacent area.
<i>Oncorhynchus clarkii clarkii</i>	coast cutthroat trout	None	None	SSC			Aquatic, klamath northcoast flowing waters	None in project site. 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 site. High in adjacent area.
<i>Oncorhynchus mykiss irideus</i> pop. 16	steelhead - northern California DPS	Threatened	None	-			Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project site. 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 site. 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 site. High in adjacent area.
Insect								
<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, Phacelia	Low in project site. High in adjacent area.
<i>Bombus occidentalis</i>	western bumble bee	None	None	-			Pollinates a wide variety of flowers, nests in cavities or abandoned burrows	Moderate in project site. High in adjacent area.
Mammals								
<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	None	None	-			Mountain beaver burrows are often located on gentle slopes in moist forests, sometimes near surface water.	Low project site. Low adjacent area.
<i>Erethizon dorsatum</i>	North American porcupine	None	None	-			broadleaf upland forest, cismontane woodland, lower and upper montane conifer forest	Moderate in project site. High in adjacent area

<i>Arbormimus pumo</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 site. Moderate in adjacent area.
<i>Martes caurina humboldtensis</i>	Humboldt marten	None	None	SSC	Old-growth coastal redwood forests of the U.S. states of California and Oregon. Less than 300 of them survive in both states combined, in three different populations of 100 each	Low in project site. Low in adjacent area.
<i>Pekania pennanti</i>	fisher - West Coast DPS	None	None	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 site. 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 in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Moderate in project area. Moderate in adjacent area.
<i>Antrous pallidus</i>	pallid bat	None	None	SSC	Pallid bats occur in semi-arid and arid landscapes in western North America. They are found primarily in grasslands, shrub-steppe, and desert environments with rocky outcrops, but also dry open oak or ponderosa forest, and open farmland.	Moderate project site (flyover). Low adjacent area.
<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.	None due to elevation range.
<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.	Moderate project site (flyover). High 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 project site (flyover). Moderate 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 project site (flyover).

<i>Myotis evotis</i>	long-eared myotis	None	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 adjacent area.
<i>Myotis lucifugus</i>	little brown bat	None	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.	Moderate project site (flyover). Moderate adjacent area.
<i>Myotis thysanodes</i>	fringed myotis	None	None	None	-	pinyon-juniper, valley foothill conifer and hardwood conifer	Moderate project site (flyover). Low in adjacent area.
<i>Myotis volans</i>	long-legged myotis	None	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 due to elevation range.
<i>Myotis yumanensis</i>	Yuma myotis	None	None	None	-	lower and upper montane conifer and riparian forest and woodland	Low in project site (flyover). Moderate in adjacent area.
Mollusks							
<i>Margaritifera falcata</i>	western pearlshell	None	None	None	-	coastal dunes coastal scrub, riparian redwood forest habitats	Low in project site. Moderate in adjacent area.
<i>Anodonta californiensis</i>	California floater	None	None	None	-	freshwater lakes and slow-moving streams and rivers	None in project site. Low in adjacent area.
<i>Anodonta oregonensis</i>	Oregon floater	None	None	None	-	These mussels occur in lakes, slow rivers, and some reservoirs with mud or sand substrates.	None in project site. Low in adjacent area.
<i>Gonidea angulata</i>	western ridged mussel	None	None	None	-	cold creeks and streams	None in project site. Moderate in adjacent area.
Reptiles							
<i>Emys marmorata</i>	western pond turtle	None	None	None	SSC	aquatic, flowing waters, standing waters, marsh, swamp, wetland	None in project site. 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.

Definitions of Federal Statuses (Federal Endangered Species Act):

Endangered species:

As defined in the U.S. Government Code and California Fish and Game Code (16 U.S. Government Code 1532[6] and California Fish and Game Code Section 2062), a native species, subspecies, variety of organism, or distinct population segment that 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, overexploitation, predation, competition, or disease.

Threatened species:

Native species, subspecies, variety, or distinct population segment of an organism that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future throughout all of a significant portion of its range.

Candidate Species:

Not defined or addressed in statute or regulations. Candidate species are those which USFWS has sufficient information on their biological status and threats to propose listing, but for which the development of a proposed listing regulation is precluded by other higher priority listing activities. Candidates receive no protection under the ESA.

Definitions of State Statutes (California Endangered Species Act:

Endangered species:

A native species or subspecies of 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, overexploitation, predation, competition, or disease. Fish & G. Code, §2062

Threatened species:

A native species or subspecies of 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 efforts required by this chapter. Fish & G. Code, §2067

Candidate Species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the Department for listing. Candidates are given full CESA protection. Fish & G. Code, §2068

Table 2 – Special Status Plant Species – June 2020 – APN 205-231-029 – Scotia and surrounding 7.5 min quadrangles

Scientific Name	Common Name	Family	California Rare Rank	Global Rank	State Rank	CESA	FESA	Bloom Period	Habitat	Micro Habitat	Elevation (m)	Potential of Occurrence
Bryophytes												
<i>Fissidens pauperculus</i>	minute pocket moss	Fissidentaceae	1B.2	G3?	S2	None	None	NA	North Coast coniferous forest	damp coastal soil	10 - 1024 meters	None in project site. Moderate in adjacent area.
Lichens												
<i>Usnea longissima</i>	Methusealah's beard lichen	Parmeliaceae	4.2	G4	S4	None	None	NA	Broadleafed upland forest; North Coast coniferous forest	On tree branches; usually on old growth hardwoods and conifers.	50 - 1460 meters	None in project site. Moderate in adjacent area.
Vascular												
<i>Erigeron biolettii</i>	streamside daisy	Asteraceae	3	G3?	S3?	None	None	Jun-Oct	Broadleafed upland forest; Cismontane woodland; North Coast coniferous forest	Rocky, mesic	30 - 1100 meters	Low in project site. Low in adjacent area.
<i>Hemizonia congesta</i> ssp. <i>tracyi</i>	Tracy's tarplant	Asteraceae	4.3	G5T4	S4	None	None	May-Oct	Coastal prairie; Lower montane coniferous forest; North Coast coniferous forest	Openings, sometimes serpentine.	120 - 1200 meters	None due to elevation range.
<i>Hesperivax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	Asteraceae	1B.2	G4T3	S2	None	None	Mar-Jun	Coastal bluff scrub. Coastal dunes, coastal prairie	sandy	0 - 215 meters	None in project site. None in adjacent area.
<i>Packera bolanderi</i> var. <i>bolanderi</i>	seacoast ragwort	Asteraceae	2B.2	G4T4	S2S3	None	None	May-Jul	Coastal scrub; North Coast coniferous forest	Sometimes roadsides.	30 - 650 meters	Low in project site. Low in adjacent area.
<i>Downingia willamettensis</i>	Cascade downingia	Campanulaceae	2B.2	G4	S2	None	None	Jun-Jul	Cismontane woodland (lake margins); Valley and foothill grassland (lake margins)	Vernal pools	15 - 1110 meters	Low in project site. Low in adjacent area.
<i>Carex arcta</i>	northern clustered sedge	Cyperaceae	2B.2	G5-	S1	None	None	Jun-Sep	North Coast coniferous forest (mesic)	Bogs and fens	60 - 1400 meters	None due to elevation range.
<i>Astragalus agnicidus</i>	Humboldt County milk-vetch	Fabaceae	1B.1	G2	S2	None	None	Apr-Sep	Broadleafed upland forest; North Coast coniferous forest	Openings, disturbed areas, sometimes roadsides.	120 - 800 meters	None due to elevation range.

<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	Fabaceae	4.3	G4T4	S4	None	None	None	Apr-Jul	Chaparral; Cismontane woodland; Lower montane coniferous forest	Gravelly streambanks.	30 - 825 meters	Low in project site. Moderate in adjacent area.
<i>Hosackia gracilis</i>	harlequin lotus	Fabaceae	4.2	G3G4	S3	None	None	None	Mar-Jul	Broadleafed upland forest; Coastal bluff scrub; Closed-cone coniferous forest; Cismontane woodland; Coastal prairie; Coastal scrub; North Coast coniferous forest; Valley and foothill grassland	Wetlands; Roadsides; Meadows and seeps; Marshes and swamps;	0 - 700 meters	Moderate in project site. Moderate in adjacent area.
<i>Lathyrus glandulosus</i>	sticky pea	Fabaceae	4.3	G3	S3	None	None	None	Apr-Jun	Cismontane woodland	NA	300 - 800 meters	None due to elevation range.
<i>Ribes roezlii</i> var. <i>amictum</i>	hoary gooseberry	Grossulariaceae	4.3	G5T4	S4	None	None	None	Mar-Apr	Broadleafed upland forest; Cismontane woodland; Lower montane coniferous forest; Upper montane coniferous forest	NA	120 - 2300 meters	None due to elevation range.
<i>Lycopus uniflorus</i>	northern bugleweed	Lamiaceae	4.3	G5	S4	None	None	None	Jul-Sep	NA	Bogs and fens, Marshes and swamps	5 - 2000 meters	Low in project site. Low in adjacent area.
<i>Erythronium oregonum</i>	giant fawn lily	Liliaceae	2B.2	G4G5	S2	None	None	None	Mar-Jun	Cismontane woodland	sometimes serpentine, rocky, openings; Meadows and seeps	100 - 1150 meters	None due to elevation range.
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	2B.2	G4G5	S3	None	None	None	Mar-Jul	Broadleafed upland forest; North Coast coniferous forest	Mesic, streambanks; Bogs and fens	0 - 1600 meters	None in project site. Moderate in adjacent area.
<i>Lilium kelloggii</i>	Kellogg's lily	Liliaceae	4.3	G3	S3	None	None	None	May-Aug	Lower montane coniferous forest; North Coast coniferous forest	Openings, roadsides.	3 - 1300 meters	Moderate in project site. Moderate in adjacent area.
<i>Lilium rubescens</i>	redwood lily	Liliaceae	4.2	G3	S3	None	None	None	Apr-Aug	Broadleafed upland forest; Chaparral; Lower montane coniferous forest; North Coast coniferous forest	Sometimes serpentine, sometimes roadsides.	30 - 1910 meters	Low in project site. Low in adjacent area.

<i>Lycopodium clavatum</i>	running-pine	Lycopodiaceae	4.1	G5	S3	None	None	Jun-Aug	forest; Upper montane coniferous forest Lower montane coniferous forest (mesic); North Coast coniferous forest (mesic)	often edges, openings, and roadsides; Marshes and swamps	45 - 1225 meters	Low in project site. Low in adjacent area.
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	4.2	G3	S3	None	None	Apr-Aug	Broadleaved upland forest; Coastal prairie; Coastal scrub; North Coast coniferous forest; Riparian woodland	Often in disturbed areas.	0 - 730 meters	Moderate in project site. High in adjacent area.
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	Malvaceae	1B.2	G5T2	S2	None	None	May-Aug	Coastal bluff scrub; Coastal prairie; North Coast coniferous forest	Often roadcuts.	15 - 880 meters	Moderate in project site. Moderate in adjacent area.
<i>Pityopus californicus</i>	California pinefoot	Monotropaceae	4.2	G4G5	S4	None	None	May-Aug	Broadleaved upland forest; Lower montane coniferous forest; North Coast coniferous forest; Upper montane coniferous forest	Mesic.	15 - 2225 meters	Low in project site. Moderate in adjacent area.
<i>Montia howellii</i>	Howell's montia	Montiaceae	2B.2	G3G4	S2	None	None	Mar-May	North Coast coniferous forest	Vernally mesic, sometimes roadsides; Meadows and seeps; Vernal pools	0 - 835 meters	Moderate in project site. Moderate in adjacent area.
<i>Clarkia amoena ssp. whitneyi</i>	Whitney's farewell-to-spring	Onagraceae	1B.1	G5T1	S1	None	None	10 - 100 meters	Coastal bluff scrub, Coastal scrub	NA	10 - 100 meters	Low in project site. Low in adjacent area.
<i>Epilobium septentrionale</i>	Humboldt County fuchsia	Onagraceae	4.3	G4	S4	None	None	Jul-Sep	Broadleaved upland forest; North Coast coniferous forest	Sandy or rocky.	45 - 1800 meters	Low in project site. Moderate in adjacent area.
<i>Listera cordata</i>	heart-leaved twayblade	Orchidaceae	4.2	G5	S4	None	None	Feb-Jul	Lower montane coniferous forest; North Coast coniferous forest	Bogs and fens	5 - 1370 meters	Low in project site. Low in adjacent area.
<i>Piperia candida</i>	white-flowered rein orchid	Orchidaceae	1B.2	G3	S3	None	None	May-Sep	Broadleaved upland forest; Lower montane coniferous forest; North Coast coniferous forest	sometimes serpentine	30 - 1310 meters	Low in project site. Low in adjacent area.

<i>Castilleja ambigua</i> var. <i>ambigua</i>	Johnny-nip	Orobanchaceae	4.2	G4T4	S3S4	None	None	Mar-Aug	Coastal bluff scrub; Coastal prairie; Coastal scrub; Marshes and swamps; Valley and foothill grassland	Vernal pools margins	0 - 435 meters	Low in project site. Moderate in adjacent area.
<i>Calamagrostis foliosa</i>	leafy reed grass	Poaceae	4.2	G3	S3	Rare	None	May-Sep	Coastal bluff scrub, North Coast coniferous forest	rocky	0 - 1220 meters	Low in project site. Moderate in adjacent area.
<i>Pleuropogon refractus</i>	nodding semaphore grass	Poaceae	4.2	G4	S4	None	None	Apr-Aug	Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	mesic; riparian forest	0 - 1600 meters	Moderate in project site. Moderate in adjacent area.
<i>Collomia tracyi</i>	Tracy's collomia	Polemoniaceae	4.3	G4	S4	None	None	Jun-Jul	Broadleafed upland forest; Lower montane coniferous forest	Rocky, sometimes serpentinite.	300 - 2100 meters	None due to elevation range.
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Polemoniaceae	1B.2	G5T3	S2	None	None	Apr-Aug	Coastal bluff scrub; Chaparral (openings); Coastal prairie; Valley and foothill grassland	NA	5 - 1665 meters	Moderate in project site. Moderate in adjacent area.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	Polemoniaceae	1B.1	G4T2	S2	None	None	Apr-Jul	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools	Mesic	5 - 1740 meters	Moderate in project site. Moderate in adjacent area.
<i>Polemonium carneum</i>	Oregon polemonium	Polemoniaceae	2B.2	G3G4	S2	None	None	Apr-Sep	Coastal prairie, Coastal scrub, Lower montane coniferous forest	NA	0 - 1830 meters	Low in project site. Moderate in adjacent area.
<i>Coptis laciniata</i>	Oregon goldthread	Ranunculaceae	4.2	G4?	S3?	None	None	Mar-May	Meadows and seeps; North Coast coniferous forest (streambanks)	Riparian; mesic	0 - 1000 meters	Low in project site. Moderate in adjacent area.
<i>Mitellastrum caulescens</i>	leafy-stemmed mitrewort	Saxifragaceae	4.2	G5	S4	None	None	Apr-Oct	Broadleafed upland forest; Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	Mesic, sometimes roadsides.	5 - 1700 meters	Low in project site. Moderate in adjacent area.
<i>Tiarella trifoliata</i> var. <i>trifoliata</i>	trifoliolate laceflower	Plants - Vascular - Saxifragaceae - Tiarella trifoliata var. trifoliata	3.2	G5T5	S2S3	None	None	Jun-Aug	Lower montane coniferous forest; North Coast coniferous forest	Edges, moist shady banks, streambanks.	170 - 1500 meters	None due to elevation range.

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).

Intraspecific Taxon Conservation Status Ranks

- T# Intraspecific Taxon (trimonial)** – The status of intraspecific 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 intraspecific 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.

Appendix D
Occurrence Report 1 – *Strix occidentalis caurina*

Data Version Date:
05/26/2020
Report Generation Date:
6/24/2020



Report #2 - Observations Reported
List of observations reported by site.

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

H_01N_01E Sections(15):

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
Masterowl: HUM0830 Subspecies: NORTHERN											
POS	1996-07-26		2	UMUF	Y			40.463619	-124.050549	H 01N 01E 15	Contributor
POS	1997-05-31		2	UMUF	Y		2	40.464304	-124.039531	H 01N 01E 14	Quarter-section centroid
POS	1998-04-27		2	UMUF	Y			40.464371	-124.049098	H 01N 01E 15	Quarter-section centroid
POS	1999		1	UM				40.464371	-124.049098	H 01N 01E 15	Quarter-section centroid
POS	2000		2	UMUF	Y			40.464409	-124.058711	H 01N 01E 15	Quarter-section centroid
POS	2001		2	UMUF	Y			40.467577	-124.049230	H 01N 01E 15	Activity center
POS	2001		2	UMUF	Y	Y	2	40.463847	-124.045245	H 01N 01E 15	Contributor
POS	2001-04-13		1	AM				40.467577	-124.049230	H 01N 01E 15	Activity center
POS	2001-05-31		1	AF				40.467577	-124.049230	H 01N 01E 15	Activity center
POS	2001-08-29		0				2	40.467577	-124.049230	H 01N 01E 15	Activity center
POS	2002		2	UMUF	Y			40.464371	-124.049098	H 01N 01E 15	Quarter-section centroid
NEG	2003		0					40.464117	-124.050238	H 01N 01E 15	Contributor
POS	2005		2	UMUF	Y	Y	2	40.461980	-124.047386	H 01N 01E 15	Contributor
NEG	2005-04-19	0555	0					40.467577	-124.049230	H 01N 01E 15	Activity center
POS	2005-07-07	0900	1	UF	Y	Y	2	40.464371	-124.049098	H 01N 01E 15	Quarter-section centroid
POS	2005-07-11	0930	1	UF	Y	Y	2	40.464371	-124.049098	H 01N 01E 15	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2005-07-25	0920	1	UF	Y	Y	2	40.464371	-124.049098	H.01N.01E 15	Quarter-section centroid
NEG	2005-08-16	0800	0					40.467577	-124.049230	H.01N.01E 15	Activity center
POS	2006		2	UMUF	Y			40.462397	-124.046189	H.01N.01E 15	Contributor
NEG	2006-03-22	0715	0					40.467577	-124.049230	H.01N.01E 15	Activity center
POS	2006-04-24	1930	2	UMUF	Y			40.464371	-124.049098	H.01N.01E 15	Quarter-section centroid
NEG	2006-04-26	0628	0					40.467577	-124.049230	H.01N.01E 15	Activity center
POS	2006-05-11	1600	1	UF	Y			40.464371	-124.049098	H.01N.01E 15	Quarter-section centroid
AC	2008		2	UMUF	Y	Y	2	40.467577	-124.049230	H.01N.01E 15	Contributor
POS	2009		2	UMUF	Y	N		40.467549	-124.049212	H.01N.01E 15	Contributor
POS	2010		2	UMUF	Y			40.474884	-124.048839	H.01N.01E 15	Contributor
POS	2010		2	UMUF	Y	N		40.467550	-124.049212	H.01N.01E 15	Contributor
POS	2011		2	UMUF	Y	N		40.467546	-124.049207	H.01N.01E 15	Contributor
NEG	2011		0					40.474666	-124.048834	H.01N.01E 15	Contributor
NEG	2012		0					40.474663	-124.048839	H.01N.01E 15	Contributor
POS	2012		2	UMUF	Y			40.467549	-124.049212	H.01N.01E 15	Contributor
POS	2013-03-13	1540- 1700	1	UF				40.464372	-124.049094	H.01N.01E 15	Quarter-section centroid
POS	2013-04-05	0920- 1000	1	UF				40.464372	-124.049094	H.01N.01E 15	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2013-05-10	0910- 1000	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
POS	2013-06-24	1900- 2000	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
POS	2014-03-21	1247- 1348	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
NEG	2014-05-16	1215- 1403	0					40.467550	-124.049213	H 01N 01E 15	Activity center
POS	2014-05-29	1010- 1115	2	UMUF	Y			40.471667	-124.049128	H 01N 01E 15	Quarter-section centroid
POS	2014-07-15	1902- 1932	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
NEG	2014-08-08	1240- 1355	0					40.467550	-124.049213	H 01N 01E 15	Activity center
NEG	2015-03-11	1620- 1640	0					40.467550	-124.049213	H 01N 01E 15	Activity center
NEG	2015-03-13	1300- 1420	0					40.467550	-124.049213	H 01N 01E 15	Activity center
NEG	2015-04-07	1430- 1600	0					40.467550	-124.049213	H 01N 01E 15	Activity center
POS	2015-04-17	1030- 1130	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
POS	2015-04-28	1510- 1600	1	UF				40.464372	-124.048094	H 01N 01E 15	Quarter-section centroid
NEG	2015-07-23	1503- 1811	0					40.474664	-124.048839	H 01N 01E 15	Activity center
POS	2015-07-23	1405- 1435	2	UMUF	Y			40.471594	-124.039534	H 01N 01E 14	Quarter-section centroid
POS	2016-03-22	1515- 1615	1	UF				40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid
NEG	2016-04-12	1520- 1700	0					40.467550	-124.049213	H 01N 01E 15	Activity center
POS	2016-06-14	1955- 2015	2	UMUF	Y			40.464372	-124.049094	H 01N 01E 15	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2016-08-22	1610- 1649	1	UF				40.471667	-124.049128	H.01N.01E 15	Quarter-section centroid
POS	2017-03-29	1220- 1320	2	UMUF	Y			40.464372	-124.049094	H.01N.01E 15	Quarter-section centroid
POS	2017-05-09	1313- 1332	2	UMUF	Y	N		40.464372	-124.049094	H.01N.01E 15	Quarter-section centroid
NEG	2017-07-31	1650- 1950	0					40.474664	-124.048839	H.01N.01E 15	Activity center
NEG	2017-08-02	1337- 1440	0					40.467550	-124.049213	H.01N.01E 15	Activity center
NEG	2017-08-11	0936- 1100	0					40.474664	-124.048839	H.01N.01E 15	Activity center
POS	2017-08-11	1100- 1215	2	UMUF	Y	N		40.471667	-124.049128	H.01N.01E 15	Quarter-section centroid
POS	2018-03-12	1523- 1548	2	UMUF	Y			40.464371	-124.049098	H.01N.01E 15	Quarter-section centroid
POS	2018-04-19	1506- 1640	2	UMUF	Y			40.464371	-124.049068	H.01N.01E 15	Quarter-section centroid
POS	2018-05-17	1717- 1955	1	UF				40.471667	-124.049128	H.01N.01E 15	Quarter-section centroid
NEG	2018-06-14	0950- 1135	0					40.467550	-124.049213	H.01N.01E 15	Activity center
POS	2018-06-14	1715- 2014	1	UF				40.471667	-124.049128	H.01N.01E 15	Quarter-section centroid
Positive Spotted Owl detections not associated with a known Activity Center Subspecies: NORTHERN											
POS	2010		2					40.474664	-124.048839	H.01N.01E 15	Contributor
Additional surveys within the search area with no Spotted Owls detected											
NEG	2011		0					40.474664	-124.048839	H.01N.01E 15	Contributor
NEG	2012		0					40.474664	-124.048839	H.01N.01E 15	Contributor

Type	Date	Time	#Adults	Age:Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2013		0					40.474664	-124.048839	H 01N 01E 15	Activity center



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



Query Criteria: Species IS (Rana aurora)

Map Index Number:	A4040	EO Index:	105704
Key Quad:	Scotia (4012441)	Element Code:	AAABH01021
Occurrence Number:	162	Occurrence Last Updated:	2017-03-22

Scientific Name:	<i>Rana aurora</i>	Common Name:	northern red-legged frog
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G4 State: S3	Other Lists:	CDPW_S5C-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive

General Habitat:

HUMID FORESTS, WOODLANDS, GRASSLANDS, AND STREAMSIDES IN NORTHWESTERN CALIFORNIA, USUALLY NEAR DENSE RIPARIAN COVER.

Micro Habitat:

GENERALLY NEAR PERMANENT WATER, BUT CAN BE FOUND FAR FROM WATER, IN DAMP WOODS AND MEADOWS, DURING NON-BREEDING SEASON.

Last Date Observed:	1955-03-20	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1955-03-20	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF STAFFORD AND THE EEL RIVER, 3.5 MILES SE OF SCOTIA ALONG HIGHWAY 101

Detailed Location:

Ecological:

Threats:

General:

A SET OF COLLECTIONS WERE MADE IN THIS VICINITY ON 20 MAR 1955

PLSS:	T01N, R01E, Sec. 22 (H)	Accuracy:	2/5 mile	Area (acres):	260
UTM:	Zone-10 N4478691 E410836	Latitude/Longitude:	40.4541 / -124.05154	Elevation (feet):	150

County Summary:

Humboldt

Quad Summary:

Scotia (4012441)

Sources:

KAR5530036 KARLSTROM, E - MVZ #62399, 62400 & 62402 COLLECTED 3.5 MI SE SCOTIA ON HWY 101 1955-03-20



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



Query Criteria: Species IS Riparia riparia)

Map Index Number:	84458	EO Index:	85486
Key Quad:	Hydesville (4012451)	Element Code:	ABPAL06010
Occurrence Number:	297	Occurrence Last Updated:	2011-12-06

Scientific Name:	Riparia riparia		Common Name:	bank swallow
Listing Status:	Federal:	None	Rare Plant Rank:	
	State:	Threatened	Other Lists:	BLM_S-Sensitive IUCN_LC-Least Concern
CNDDB Element Ranks:	Global:	G5		
	State:	S2		

General Habitat:

COLONIAL NESTER. NESTS PRIMARILY IN RIPARIAN AND OTHER LOWLAND HABITATS WEST OF THE DESERT

Micro Habitat:

REQUIRES VERTICAL BANKS/CLIFFS WITH FINE-TEXTURED/SANDY SOILS NEAR STREAMS, RIVERS, LAKES, OCEAN TO DIG NESTING HOLE

Last Date Observed:	1946-06-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1946-06-21	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:

VAN DUZEN RIVER.

Detailed Location:

LOCATION STATED AS "VAN DUZEN RIVER" NEST LOCATED 30 FEET ABOVE THE RIVER IN A SANDY FACE. EXACT LOCATION UNKNOWN AND SO LOCATION MAPPED APPROXIMATELY FROM THE MOUTH OF THE VAN DUZEN RIVER UPSTREAM (ABOUT 10 AIR MILES) TO ROOT CREEK.

Ecological:

Threats:

General:

YOUNG AND ADULTS WERE OBSERVED ON 21 JUN 1946

PLSS: T02N, R01E, Sec. 35 (H)	Accuracy:	5 miles	Area (acres):	0
UTM: Zone-10 N4485406 E412656	Latitude/Longitude:	40.51431 / -124.02662	Elevation (feet):	130

County Summary:

Humboldt

Quad Summary:

Redcrest (4012348), Owl Creek (4012358), Scotia (4012441), Hydesville (4012451)

Sources:

TAL47A0001 TALMADGE, R. - THE BANK SWALLOW BREEDING IN HUMBOLDT COUNTY, CALIFORNIA. CONDOR 49(1): 36. 1947-XX-XX