Hohman & Associates
FORESTRY CONSULTANTS
P.O. Box 733, Hydesville, CA 95547 . (707) 768-3743 . (707) 768-3747 fax

Biological Habitat Assessment

Mazari Farms Inc. & Flore Farms Inc.
APNs: 223-074-004, 223-074-006, & 223-074-009
CEQA Compliance

Prepared by
Corrina Kamoroff
1/22/21

For
Hohman and Associates
Hydesville, CA

Signature:  **Date:** 1/22/2021

CONTENTS

1. Summary

This Biological Resource Assessment was prepared on behalf of Mazari Farms Inc. and Flore Farms Inc. whom are seeking permits for commercial cannabis cultivation under the Humboldt County Commercial Cannabis Land Use Ordinance (CCLUO, a.k.a Ordinance 2.0) for Assessor's Parcel Numbers 223-074-004, 223-074-006, & 223-074-009. This document assesses habitats and potentially occurring special-status animals and identifies potential impacts of cultivation-related activities on biological resources.

The three parcels are located east of Garberville, CA in southern Humboldt County. The property has the potential to support numerous special status animal species (details are provided in Section 4.3 Special Status Animals). Additional mitigation measures have been recommended to address potential impacts to biological resources. A table summarizing all mitigation measures recommended to reduce biological impacts to less-than-significant levels can be found in Section 5.2.

2. Introduction

2.1 Project Description

Mazari Farms Inc. and Flore Farms Inc. are seeking permits for Commercial Cannabis Cultivation and nurseries on Assessor's Parcel Number (APNs) 223-074-004, 223-074-006 & 223-074-009. Collectively the parcels make up approximately 408 acres. Mazari Farms Inc. and Flore Farms Inc. are proposing remediation efforts related to previous cannabis cultivation and to continue commercial cannabis cultivation at six separate sites with hoop houses as well as a nursery site on the property. Water will be supplied from the existing approximately 1.5 million-gallon pond until removal and remediation of the pond site is initiated. A new pond is proposed on APN 223-074-004 (Photo 4).

2.2 Setting

The proposed projects are located in Section 29, Township 4 South, Range 4 East HB&M; Humboldt County, on the Garberville and Harris USGS 7.5' quadrangle. The biogeographic region can be described using a three-tiered hierarchy of province, region and sub-region. This site lies within the California Floristic Province, Northwestern California region, and North Coast sub-region. The project area is approximately 5 miles southeast of Garberville, CA. The project area is approximately one mile north of the East Branch of the South Fork of the Eel River. The elevation is approximately 800 ft. above sea level. Slopes on the property range from gentle to very steep. The aspect of the parcels varies, but it is primarily south-facing. The area is a mosaic of oak woodlands dominated by Oregon white oak (*Quercus garryana),* grasslands, and mixed coniferous forest dominated by Douglas fir *(Pseudotsuga menziesii).* A portion of the oak woodland habitat on the eastern side of the APNs 223-074-004 and 223-074-006 was burned in a vegetation fire around 2015.

2.3 Zoning

The parcels are zoned for Agriculture Exclusive (AE) and the current general plan is zoned for Agriculture (AG).

2.4 Purpose

The primary purpose of this Biological Resource Assessment is to evaluate the potential effects of the applicant's cannabis cultivation operations on biological resources. The applicant is seeking permitting for commercial cultivation of cannabis in Humboldt County, and this is a discretionary project subject to the California Environmental Quality Act (CEQA). This assessment provides the following information for the permitting process:

- An evaluation of biological resources on the site.
- Determinations of whether the project has the potential to significantly impact biological resources.
- Recommendations of additional surveys needed to adequately assess potential impacts.
- Recommended mitigations to avoid, minimize, or compensate for any potentially significant impacts.

2.5 Qualifications

The Biological Resource Assessment for this project was conducted by Corrina Kamoroff. Corrina Kamoroff is a Wildlife Biologist for Hohman and Associates Forestry Consultants. Corrina received her B.S. in Evolution, Ecology and Biodiversity from University of California, Davis. Corrina is currently pursuing her M.S. in Natural Resources with a concentration in Wildlife from Humboldt State University. Corrina has over 8 years of wildlife experience in Northern California, including over two years conducting biological surveys and evaluating potential impacts in fulfillment of CEQA requirements.

2.6 Terms

Biological Assessment Area (BAA): The area evaluated for potential impacts to biological resources, defined in this document as the property area surrounded by a 1.3 mile buffer.

Biological Resource Assessment: Referring to this document, a review of potential impacts to biological resources that informs agency review of discretionary projects subject to CEQA.

California Department of Fire (CDF) Sensitive: Species that warrant protection during timber harvest operations, listed in California Forest Practice Rules.

California Environmental Quality Act (CEQA): A state environmental law that applies to discretionary projects subject to state agency review. The purposes of CEQA include disclosing environmental impacts, minimizing environmental damage, and involving the public.

California Endangered Species Act (CESA): A state law that prohibits "take" of species protected by CDFW, including Threatened, Endangered, and Candidate Species.

California Department of Fish and Wildlife (CDFW): A trustee agency that protects California's fish and wildlife resources.

California Native Plant Society (CNPS): A non-profit organization dedicated to preserving and protecting native plants and their habitats. CNPS provides protocols and information relevant to plant conservation, including rankings of rare plants recognized by CDFW.

Commercial Medical Marijuana Land Use Ordinance (CMMLUO): "Ordinance 1.0," a Humboldt County ordinance that regulates commercial cultivation, processing, manufacturing and distribution of cannabis for medical use.

Commercial Cannabis Land Use Ordinance (CCLUO): "Ordinance 2.0," a Humboldt County ordinance regulating commercial cannabis cultivation for adult use.

Endangered: Taxa in immediate jeopardy of extinction in all or part of their range.

Federal Endangered Species Act (FESA): A federal law enacted in 1973 that protects species listed as Threatened or Endangered by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS).

Fully Protected (FP): Take of species is strictly prohibited by CDFW.

NatureServe: A non-profit dedicated to providing scientific information to support informed decisions. NatureServe provides information on species and rankings of rare species (see Attachment D).

Special Animals: All animals tracked by CDFW, including threatened, endangered, rare, sensitive, and otherwise vulnerable species.

Species of Special Concern (SSC): Species considered by CDFW to be vulnerable because of declining populations, limited range, or other threats.

State Water Resources Control Board Order WQ 2019-0001-DWQ: The order sets requirements for waste discharge related to cannabis cultivation. The State Water Resources Control Board Cannabis Cultivation Regulatory Program will replace the regional program, which is no longer accepting enrollment. The state program has set similar standards to minimize impacts to water quality. Information is available on the website: https://www.waterboards.ca.gov/water_issues/programs/cannabis/

Streamside Management Area (SMA): Protective buffers around permanent or intermittent streams. The Humboldt County General Plan (2017) defines Streamside Management Areas as follows:

1. 100 feet, measured as the horizontal distance from the top of bank or edge of riparian drip-line whichever is greater on either side of perennial streams.

2. 50 feet, measured as the horizontal distance from the top of bank or edge of riparian drip-line whichever is greater on either side of intermittent streams.

3. The width of Streamside Management Areas shall not exceed 200 feet measured as a horizontal distance from the top of bank.

Threatened: Taxa likely to become endangered in the foreseeable future.

3. Methods

3.1 Biological Assessment Area

The Biological Assessment Area (BAA) for this project includes a 1.3-mile buffer area around the property. The assessment considers off-site impacts to habitats and species that may be in the BAA buffer area. Consideration of offsite impacts in the BAA is potentially relevant to sensitive species and habitats downslope or downstream of operations (e.g. riparian habitat or salmonids), and to species that require a large range and may be sensitive to disturbance (e.g. the northern spotted owl).

3.2 Database Search

A list of special-status animal species was downloaded from CNDDB for the Garberville and Harris 9-quad area. Potential habitats on the parcel and within the BAA for species occurring in the 9-quad area were evaluated. The potential for the project to impact each species was evaluated based on the potential for the species to occur in the area of impact and sensitivity of the species to potential loss of habitat, disturbance, or other effects of operations. Surveys and mitigations needed are specified for species that could incur significant impacts. Attachment A contains a vegetation map showing the CALVEG (Classification and Assessment with

LANDSAT of Visible Ecological Groupings) dominant vegetation alliances for the parcel and surrounding area (U.S. Forest Service 2000), which was used to assess habitat in the surrounding area. Attachment B shows nearby occurrences of special status taxa as mapped in CNDDB. Attachment C shows northern spotted owl occurrences and activity centers within the BAA.

3.3 Field Surveys

The site was evaluated for potential habitat value to protected, endangered, threatened, rare, and sensitive species by walking around the project area to observe species, habitat types, and quality. Habitat and potential impacts were evaluated during a visit to the proposed cultivation site on January 19, 2021 by Wildlife Biologist, Corrina Kamoroff. Table 5.2 provides a list of surveys and mitigation measures needed to reduce the potential impact of the project on biological resources to less than significant. Attachments A, B and C provide maps with data from CNDDB and USFS CALVEG used in initial scoping for the project. Photos taken of the project footprint and surrounding habitat can be found in Attachment D. Attachment E provides an explanation of NatureServe rankings. Attachment F provides an aerial photo of the project area.

3.4 Trustee and Other Agency Consultation

California Department of Fish and Wildlife (CDFW) and Humboldt County Planning Department have been consulted regarding the project.

4. Results

4.1 Existing Conditions

Mazari Farms Inc. and Flore Farms Inc. currently has five separate cannabis cultivation locations, one greenhouse/nursery, numerous residential houses and outbuildings and one estimated 1.5-million-gallon pond. There are three structures located within a Class II drainage associated with processing cannabis product that are to be removed and remediated in 2021. The existing pond is designated to be removed within the next four years and the site remediated. Mazari Farms Inc. and Flore Farms Inc. were raided in 2020 due to active cannabis cultivation with suspended permits as well as numerous violations related to cannabis cultivation. An abatement order (Abatement Order No. 2019-0051) was received by Mazari Farms Inc. and Flore Farms Inc. A Cleanup, Restoration and Monitoring Plan (CRMP) has been drafted and submitted to address the Abatement Order. All necessary permits shall be obtained prior to the onset of any operations.

4.2 Habitats

4.2.1 Upland Communities

Upland areas of the property contain open grassland, mixed coniferous forest with Douglas fir (*Pseudotsuga mensiesii),* canyon live oak (*Quesrcus chrysolepis*), Oregon white oak (*Quercus garryana)* and black oak (*Quercus kellogii*). The shrub layer within the upland areas is dominated by manzanita (*Arctostaphylos manzanita),* coyote brush (*Baccharis pilularis),* and poison oak (*Toxicodendron diversilobum).*

4.2.2 Wetland and Riparian Communities

The parcels contain numerous unnamed streams that are tributaries to Seely Creek, a tributary to the Redwood Creek, a tributary to the South Fork Eel River, which is a tributary to the Main Stem Eel River. All sites associated with cannabis cultivation will be in compliance with current regulations and remain outside of all Streamside Management Areas (SMA) on the properties. Any site infrastructure within a SMA will be removed and remediated.

4.3 Special Status Animals

Special status animals evaluated in this report include animal taxa listed or proposed for listing under Federal and State Endangered Species Acts, CDFW Fully Protected, CDFW Watch List, CDFW Species of Special Concern, California Department of Forestry and Fire Protection Sensitive Species, and other special species and other taxa tracked by CDFW. Impacts to special status animals are evaluated in this section based on their likelihood of occurrence in the area, habitat and life-history needs, and sensitivity to operations. Likelihood of inhabiting the area was based on documented occurrences in the Garberville and Harris 9-quad area (See Section 4.3.1, Tables 1-5), and availability of potential habitat. Details on potentially occurring taxa, potential impacts, and surveys and mitigations needed for these animals can be found in Section 4.3.2 Potential Impacts to Special Status Animals.

4.3.1 Special Status Animals Documented by CNDDB in the Garberville and Harris 9-Quad Areas

Table 1. Birds

Scientific Name	Common Name	FESA	CESA	CDFW	GRank	SRank	Potential in BAA
Accipiter cooperii	Cooper's hawk	None	None	WL	G5	S4	Yes
Aquila chrysaetos	golden eagle	None	None	FP; WL	G5	S3	Yes
Empidonax traillii brewsteri	little willow flycatcher	None	Endangered	-	G5T3T4	S1S2	Yes
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	FP	G4T4	S3S4	Yes
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	FP	G5	S3	Yes
Pandion haliaetus	osprey	None	None	WL	G5	S4	Yes
Pelecanus occidentalis californicus	California brown pelican	Delisted	Delisted	FP	G4T3T4	S3	No-coastal
Psiloscops flammeolus	flammulated owl	None	None	-	G4	S2S4	Yes
Strix occidentalis caurina	northern spotted owl	Threatened	Threatened	SSC	G3T3	S2S3	Yes

Table 2. Mammals

Scientific Name	Common Name	FESA	CESA	CDFW	GRank	SRank	Potential in BAA
Antrozous pallidus	pallid bat	None	None	SSC	G5	S3	Yes
Arborimus pomo	Sonoma tree vole	None	None	SSC	G3	S3	Yes
Erethizon dorsatum	North American porcupine	None	None	-	G5	S3	Yes
Eumetopias jubatus	Steller (=northern) sea-lion	Delisted	None	-	G3	S2	No-Coastal
Myotis evotis	long-eared myotis	None	None	-	G5	S3	Yes
Myotis thysanodes	fringed myotis	None	None	-	G4	S3	Yes
Myotis yumanensis	Yuma myotis	None	None	-	G5	S4	Yes
Pekania pennanti	fisher - West Coast DPS	Endangered	Threatened	SSC	G5T2T3Q	S2S3	Yes

Table 3. Amphibians and Reptiles

Scientific Name	Common Name	FESA	CESA	CDFW	GRank	SRank	Potential
Ascaphus truei	Pacific tailed frog	None	None	SSC	G4	S3S4	Yes
Emys marmorata	Western pond turtle	None	None	SSC	G3G4	S3	Yes
Rana boylii	foothill yellow-legged frog	None	Endangered	SSC	G3	S3	Yes
Rhyacotriton variegatus	Southern torrent salamander	None	None	SSC	G3G4	S2S3	Yes
Taricha rivularis	red-bellied newt	None	None	SSC	G4	S2	Yes

Table 4. Fish

Scientific Name	Common Name	FESA	CESA	CDFW	GRank	SRank	Potential
Entosphenus tridentatus	Pacific lamprey	None	None	SSC	G4	S4	Yes
Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	G4T2Q	S2?	Yes
Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	Threatened	None	-	G5T2T3Q	S2S3	Yes
Oncorhynchus mykiss irideus pop. 36	summer-run steelhead trout	None	Candidate Endangered	SSC	G5T4Q	S2	Yes
Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	Threatened	None	-	G5	S1	Yes

Table 5. Invertebrates

Scientific Name	Common Name	FESA	CESA	CDFW	GRank	SRank	Potential
Bombus caliginosus	obscure bumble bee	None	None	-	G4?	S1S2	Yes
Bombus occidentalis	western bumble bee	None	Candidate Endangered	-	G2G3	S1	Yes

4.3.2 Potential Impacts to Special Status Animals

BIRDS

Potential impacts are evaluated for potentially occurring threatened, endangered, rare and sensitive bird species that have been documented in the surrounding Garberville and Harris 9-quad area.

1. **Cooper's hawk (*Accipiter cooperii*)**
   Special Status: CDFW Watch List; Protected under Migratory Bird Treaty Act; NatureServe Ranks: G5, S4
   Family: Accipitridae
   Habitat/Life-history Requirements: Cooper's hawks are common year-round residents in wooded areas of California, and they can be found in urban and suburban areas as well (Cornell Lab). The medium-sized hawk builds nests made of piles of sticks over two feet wide in tall trees, typically 25-50 feet off the ground (Cornell Lab). Nesting trees include pines, oaks and Douglas firs (Cornell Lab). Dense stands are typically used for nesting and patchy open areas are commonly used for hunting (Zeiner et al. 1988).
   Potential Impact/Mitigation: Habitat within the BAA could provide habitat for the Cooper's hawk. The raptor is on the CDFW Watch List and protected under the Migratory Bird Treaty Act (MBTA). The nearest occurrence mapped in CNDDB is over 10 miles away from the project area. Raptor surveys are recommended prior to any tree or habitat removal (**BIO-1**).

2. **Golden eagle (*Aquila chrysaetos*)**
   Special Status: CDFW Fully Protected and Watch List; Protected under Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act; NatureServe Ranks: G5, S3
   Family: Accipitridae
   Habitat/Life-history Requirements: The golden eagle is an uncommon migrant and year-round resident (Zeiner et al. 1988). The golden eagle typically utilizes open habitats away from human environments (Sibley 2003). Small mammals are the primary prey for the golden eagle (Sibley 2003). One of the largest raptors in North America, the golden eagle builds massive nests, about 6 feet across (Cornell Lab). Nests are typically located on cliffs, but may also be found on trees, man-made structures, or on the ground (Cornell Lab).
   Potential Impact/Mitigation: Open areas for foraging of the species occur within the BAA. The nearest occurrence of the golden eagle is mapped in CNDDB approximately 9 miles from the project site. Raptor surveys are recommended prior to any tree or habitat removal (**BIO-1**).

3. **Little willow flycatcher (*Empidonax traillii brewsteri*)**
   Special Status: California Endangered, Protected under Migratory Bird Treaty Act; NatureServe Ranks: G5T3T4, S1S2
   Family: Tyrannidae
   Habitat/Life-history Requirements: The little willow flycatcher is a rare to locally uncommon summer resident that breeds in the Cascades and the Sierra Nevada (Craig and Williams 1998). The little willow flycatcher breeds in wet meadows and montane riparian habitats at 2,000-8,000 feet elevation (Craig and Williams 1998). The riparian songbird

requires dense willow thickets for nesting and roosting (Bombay et al. 2003, Zeiner et al. 1988). Destruction of riparian vegetation, modification of hydrology, and nest parasitism by brown headed cowbirds are the main threats to this species (Bombay et al. 2003).
Potential Impact/Mitigation: The BAA could provide habitat for the little willow flycatcher. All operations within the Streamside Management Area are to be removed and remediated. No additional vegetation or riparian habitat disturbance is proposed and thus the project is not expected to impact the species.

4. **American peregrine falcon (*Falco peregrinus anatum*)**
Special Status: Federally Delisted, State Delisted, CDFW Fully Protected; Protected under Migratory Bird Treaty Act; NatureServe Ranks: G4T4, S3S4
Family: Falconidae
Habitat/Life-history Requirements: The formerly federally endangered American peregrine falcon was delisted in 1999 due to recovery (USFWS ECOS). The American peregrine falcon is an uncommon year-round resident and migrant in California (Zeiner et al. 1988). Peregrine falcons typically use cliffs and ledges near bodies of water for cover and nesting areas, but they may also nest on buildings or bridges in the city (Sibley 2003, Cornell Lab). Peregrine falcons may breed in woodland, forest, or coastal habitat (Zeiner et al. 1988). Riparian and wetland areas are important habitat yearlong (Zeiner et al. 1988).
Potential Impact/Mitigation: Peregrine falcons may breed in a wide variety of habitats, and they have the potential to nest in the BAA on suitable ledges or other structures. Raptor surveys are recommended prior to any tree or habitat removal (**BIO-1**).

5. **Bald eagle (*Haliaeetus leucocephalus*)**
Special Status: Federally Delisted, California Endangered, CDFW Fully Protected; Protected under Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act; NatureServe Ranks: G5, S3
Family: Accipitridae
Habitat/Life-history Requirements: Federally delisted, but still considered Endangered in California, bald eagles occur along rivers, large creeks, and coastlines throughout Northwestern California (Harris 2005). Fish are a primary source of prey, and bald eagles are typically found in forested areas near large fish-bearing waters (Cornell Lab). Bald eagles build large nests about 6 feet wide. Nests are typically found in large trees, but may be built on other available vegetation or structures (Cornell Lab).
Potential Impact: The BAA could provide habitat for the bald eagle. The closest occurrence in CNDDB is an unprocessed data point in the Iron Peak Quad. Raptor surveys are recommended prior to any tree or habitat removal (**BIO-1**).

6. **Osprey (*Pandion haliaetus*)**
Special Status: CDFW Watch List; Protected under Migratory Bird Treaty Act; NatureServe Ranks: G5, S4
Family: Accipitridae
Habitat/Life-history Requirements: Ospreys primarily prey on fish and they require large fish-bearing waters for hunting (Zeiner et al. 1988). Ospreys typically make large nests in tall snags or trees high off the ground in open forest habitats (Zeiner et al.).

Potential Impact/Mitigation: Osprey may occur in the area, which has fish bearing waters and large trees. The nearest occurrence mapped in CNDDB is approximately 2 miles away on the South Fork Eel River. Raptor surveys are recommended prior to any tree or habitat removal (**BIO-1**).

7. **Flammulated owl (*Psiloscops flammeolus*)**
   Special Status: NatureServe Rankings: G4, S2S4
   Family: Strigidae
   Habitat/Life-history Requirements: The flammulated owl nests in montane regions at 6,000-10,000 feet with low to moderate canopy cover (Zeiner et al. 1988). This small owl nests in cavities or woodpecker holes in snags or trees, and it is frequently found on the edges of ponderosa pine forest (Zeiner et al. 1988).
   Potential Impact/Mitigation: There are no CNDDB recorded occurrences of flammulated owl in the BAA. The flammulated owl, however, may occur in the area of impact. The project should incorporate measures to reduce disturbance from noise and lights to birds and other sensitive wildlife (**BIO-4**).

8. **Northern spotted owl (*Strix occidentalis caurina)***
   Special Status: Federally Threatened, California Threatened, CDFW Species of Special Concern, Protected under Migratory Bird Treaty Act; NatureServe Ranks: G3T3, S2S3.
   Family: Strigidae
   Habitat/Life-history Requirements: Northern spotted owls typically nest or roost in multi-layered, 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 (*Neotoma fuscipes*), typically inhabits the forest edge (Harris 2005).
   Potential Impact: UFWS protocol surveys are needed for any activity that may modify nesting, roosting, or foraging habitats for northern spotted owls (NSO) (USFWS 2012). There have been no documented NSO within 1.3 mi of the of the project area. There is potential NSO habitat within the BAA. Northern spotted owl surveys are recommended until appropriate permits are acquired for the proposed projects (**BIO-2**).

MAMMALS

Potential impacts are evaluated for potentially occurring threatened, endangered, rare and sensitive mammal species that have been documented in the surrounding 9-quad area.

1. **Pallid bat (*Antrozous pallidus*)**
   Special Status: CDFW Species of Special Concern, NatureServe Ranks: G5, S3
   Family: Vespertilionidae
   Habitat/Life-history Requirements: The pallid bat may occupy a wide range of low-elevation habitats, and roost in a wide variety of structures (Zeiner et al. 1988). The bat prefers to roost in outcrops, cliffs, and crevices with access to open areas for foraging (Zeiner et al. 1988).
   Potential Impact/Mitigation: The pallid bat has been documented in the Garberville quad. The pallid bat has the potential to occur in the project area. The project should incorporate

measures to reduce disturbance from noise and lights to birds and other sensitive wildlife (**BIO-3**).

2. **Sonoma tree vole (*Arborimus pomo*)**
   Special Status: CDFW Species of Special Concern, NatureServe Ranks: G3, S3
   Family: Muridae
   Habitat/Life-history Requirements: The Sonoma tree vole occurs along the North Coast in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats (Zeiner et al. 1988). The small rodent specializes in feeding on Douglas-fir and grand fir needles, and typically constructs nests in Douglas-fir trees (Zeiner et al. 1988).
   Potential Impact/Mitigation: The arboreal rodent is unlikely to occur in the project area. The Sonoma tree vole may occur in the surrounding BAA. The nearest occurrence mapped in CNDDB is over 8 miles from the project. No impacts are expected.

3. **North American porcupine (*Erethizon dorsatum*)**
   Special Status: NatureServe Ranks: G5, S3
   Family: Erethizontidae
   Habitat/Life-history Requirements: The North American porcupine is most commonly found in montane conifer, Douglas-fir, alpine dwarf-shrub, and wet meadow habitats (Zeiner et al. 1988). The herbivore feeds on a wide variety of aquatic and terrestrial herbs, shrubs, fruits, leaves, and buds in the summer (Zeiner et al. 1988). During the winter, the porcupine diet includes evergreen leaves, twigs, bark, and cambium of trees, particularly conifers (Zeiner et al. 1988).
   Potential Impact/Mitigation: The North American porcupine could occur in the BAA. The North American porcupine has been documented in CNDDB approximately 3.5 miles from the project area. The project will not likely impact the North American porcupine or potential habitat for the mammal.

4. **Long-ear myotis (*Myotis evotis)***
   Special Status: NatureServe Ranks: G5, S3.
   Family: Vespertilionidae
   Habitat/Life-history Requirements: The long-eared myotis is widespread in California, but uncommon. The insectivore nests in cavities, under bark, in snags, or in buildings (Zeiner et al. 1988).
   Potential Impact/Mitigation: The nearest occurrence mapped in CNDDB is approximately one mile from the project area. The project should incorporate measures to reduce disturbance from noise and lights to birds and other sensitive wildlife (**BIO-4**). With mitigations put in place the project is not expected to significantly impact the species.

5. **Fringed myotis (*Myotis thysanodes)***
   Special Status: NatureServe Ranks: G4, S3.
   Family: Vespertilionidae
   Habitat/Life-history Requirements: The fringed myotis uses a wide variety of open habitats, especially pinyon-juniper, valley foothill hardwood and hardwood-conifer habitats. The insectivore requires water, and typically forages over lakes, streams, and ponds (Zeiner et al. 1988). The bat roosts in caves, mines, buildings, and crevices (Zeiner et al. 1988).

Potential Impact/Mitigation: There is potential habitat for the fringed myotis within the BAA. The project should incorporate measures to reduce disturbance from noise and lights to birds and other sensitive wildlife (**BIO-4**). With mitigations put in place, the project is not expected to significantly impact the species.

6. **Yuma myotis (*Myotis yumanensis)***
   Special Status: NatureServe Ranks: G5, S4.
   Family: Vespertilionidae
   Habitat/Life-history Requirements: The Yuma myotis is common and widespread in low-elevation habitats of California (Zeiner et al. 1988). The bat requires water for drinking and foraging habitat, and roosting structures such as buildings, mines, caves, or crevices (Zeiner et al. 1988). Open woodlands and forests provide optimal habitat (Zeiner et al. 1988).
   Potential Impact/Mitigation: There is potential habitat for the Yuma myotis within the BAA. However, the project will incorporate measures to reduce disturbance from noise and lights to birds and other sensitive wildlife (**BIO-4**). With mitigation measures put in place, the proposed projects are not expected to impact the species.

7. **Fisher – West Coast DPS (*Pekania pennanti*)**
   Special Status: Federally Endangered, State Threatened, CDFW Species of Special Concern; NatureServe Ranks: G5T2T3Q, S2S3
   Family: Mustelidae
   Habitat/Life-history Requirements: The fisher uses large expanses of forest with moderate to high canopy closure, and will avoid open forest, grasslands, and wetlands (USFWS 2014). Fishers use cavities in live trees, snags and down logs for reproductive dens (USFWS 2014). Structural complexity is a critical element of fisher habitat, necessary to provide cover for resting and denning, and habitat for prey (USFWS 2014).
   Potential Impact/Mitigation: The fisher has been documented in CNDDB approximately 10 miles from the project area within Richardson Grove State Park. There may be habitat within the BAA, but the project is not expected to impact structurally complex old growth forest with potential habitat structures for the fisher. The fisher is not expected to be impacted by the project.

AMPHIBIANS AND REPTILES

Potential impacts are evaluated for potentially occurring threatened, endangered, rare and sensitive amphibian and reptile species that have been documented in the surrounding 9-quad areas. The South Fork Eel River, tributaries and ponds within the BAA and adjacent to the property could provide habitat for numerous rare and sensitive amphibians, as well as the western pond turtle.

1. **Pacific tailed frog (*Ascaphus truei*)**
   Special Status: CDFW Species of Special Concern; NatureServe Ranks: G4, S3S4
   Family: Ascaphidae
   Habitat/Life-history Requirements: The Pacific tailed frog requires permanent, cool streams in conifer-dominated habitats including redwood, Douglas fir, mixed-conifer, and ponderosa pine habitats (Zeiner et al. 1988). They prefer turbulent waters with rocky

substrates in steep-walled valleys with dense vegetation, where the water temperature remains low (Zeiner et al. 1988). Increased water temperature and siltation from logging pose threats to the amphibian (Zeiner et al. 1988). Additionally, invasive American bullfrogs may pose a threat to native amphibians through competition, predation, and spread of disease.
Potential Impact/Mitigation: Steep, densely vegetated streams in the surrounding area could provide habitat for the Pacific tailed frog. The nearest occurrence mapped in CNDDB is over 10 miles from the project area. All infrastructure within a streamside management area (SMA) should be removed, and future cultivation operations should follow regulations implemented to protect SMAs. Amphibian surveys should occur prior to any work within a SMA (**BIO-3**).

2. **Western pond turtle (*Emys marmorata*)**
Special Status: CDFW Species of Special Concern; NatureServe Ranks: G3G4, S3
Family: Emydidae
Habitat/Life-history Requirements: The western pond turtle is associated with permanent or nearly permanent water in ponds, lakes, streams, irrigation ditches or permanent pools along streams (Zeiner et al. 1988). Invasive American bullfrogs prey upon hatchlings and juveniles (Zeiner et al. 1988).
Potential Impact/Mitigation: The BAA provides habitat for the western pond turtle. The nearest occurrence mapped in CNDDB is over 2 miles from the project along the South Fork Eel River. All infrastructure within a streamside management area (SMA) should be removed, and future cultivation operations should follow regulations implemented to protect SMAs. Amphibian surveys should occur prior to any work within a SMA (**BIO-3**).

3. **Foothill yellow-legged frog (*Rana boylii*)**
Special Status: State Endangered; CDFW Species of Special Concern; NatureServe Ranks: G3, S3
Family: Ranidae
Habitat/Life-history Requirements: The foothill yellow-legged frog primarily inhabits rocky streams or rivers with permanent water, and may be found in many habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadows (Zeiner et al. 1988). Breeding primarily occurs in low-velocity, shallow stream habitats with high habitat heterogeneity (Yarnell 2013). Foothill yellow-legged frogs may also travel substantial distances overland and use seasonally wet areas (Bourque 2008). The invasive American bullfrog and introduced fish species contribute to the reduction of foothill yellow-legged frog populations (Zeiner et al. 1988).
Potential Impact/Mitigation: Riparian areas are likely to provide habitat for the foothill yellow-legged frog. The nearest occurrence mapped in CNDDB is approximately 2 miles from the project. The foothill yellow-legged frog may be impacted by any work in wetland or riparian environments, removal of vegetation cover within SMAs, or development that may inhibit dispersal through upland environments. All infrastructure within a Streamside Management Area (SMA) should be removed, and future cultivation operations should follow regulations implemented to protect SMAs. Amphibian surveys should be implemented prior to work within any SMA (**BIO-3**).

4. **Southern torrent salamander (*Rhyacotriton variegatus*)**
   Special Status: CDFW Species of Special Concern; NatureServe Ranks: G3G4, S2S3
   Family: Rhyacotritonidae
   Habitat/Life-history Requirements: The southern torrent salamander primarily occupies cold, shaded permanent streams and seeps in redwood, Douglas fir, mixed conifer, montane riparian and montane hardwood-conifer habitats in Sonoma, Mendocino, Humboldt and Lake Counties (Zeiner et al. 1988). The newt requires rapid, permanent streams with rocky substrate for breeding and larval development (Zeiner et al. 1988).
   Potential Impact/Mitigation: Permanent, rocky streams within the BAA could provide habitat for the southern torrent salamander. The nearest occurrence mapped in CNDDB is approximately 14 miles from the project, in the Mattole watershed. The Southern torrent salamander may be impacted by any work in wetland or riparian environments, removal of vegetation cover within SMAs, or development that may inhibit dispersal through upland environments. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation operations should follow regulations implemented to protect SMAs. Amphibian surveys should occur prior to any work within a SMA (**BIO-3**).

5. **Red-bellied newt (*Taricha rivularis*)**
   Special Status: CDFW Species of Special Concern; NatureServe Ranks: G4, S2
   Family: Salamandridae
   Habitat/Life-history Requirements: The red-bellied newt primarily occupies redwood forest, but is also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats (Zeiner et al. 1988). Although adults are terrestrial, the poisonous newt requires rapid, rocky permanent streams for breeding and larval development (Zeiner et al. 1988). During terrestrial stages, the newt may be found in coastal woodlands and forests. The newt will seek cover in moist habitats, such as under woody debris, rocks, or in animal burrows (Nafis 2019).
   Potential Impact/Mitigation: Streams within the BAA could provide habitat for the red-bellied newt. The nearest occurrence mapped in CNDDB is over 12 miles from the project, in the Mattole watershed. The Red-bellied newt may be impacted by any work in wetland or riparian environments, removal of vegetation cover within SMAs, or development that may inhibit dispersal through upland environments. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation operations should follow regulations implemented to protect SMAs. Amphibian surveys should occur prior to any work within a SMA (**BIO-3**).

FISH

Potential impacts are evaluated for potentially occurring threatened, endangered, rare, and sensitive fish species that have been documented in the surrounding 9-quad area. Numerous protected salmonid species, which are sensitive to sedimentation and pollution from erosion and runoff, may be found within the watershed. Preventing erosion and runoff by implementing proper winterization is necessary to avoid impacts to sensitive fish species downstream.

1. **Pacific lamprey (*Entosphenus tridentatus*)**
   Special Status: CDFW Species of Special Concern; NatureServe Ranks: G4, S4
   Family: Petromyzontidae
   Habitat/Life-history Requirements: Pacific lampreys require cool, permanent streams with a variety of substrates and structural complexity (CalFish). Lampreys are anadromous and must have unimpeded access to the ocean (CalFish).
   Potential Impact/Mitigation: The South Fork Eel River and its tributaries may provide habitat for the Pacific Lamprey. The nearest occurrence, which has not been processed or mapped in CNDDB, was located within the Garberville Quad. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation activities should follow restrictions and remain outside of the buffer zone of any SMA.

2. **Coho salmon – southern Oregon / northern California ESU (*Oncorhynchus kisutch pop. 2*)**
   Special Status: Federally Threatened, State Threatened; NatureServe Ranks: G4T2Q,S2?
   Family: Salmonidae
   Habitat/Life-history Requirements: Coho salmon are a federally and state listed anadromous fish that occupy low gradient rivers and coastal streams (CDFW). The anadromous salmonids return to these watersheds in the fall and early winter to spawn in gravel substrate, after the first major rains (Moyle et al. 2008). Coho require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment (Moyle et al. 2008). Juveniles are most abundant in well-shaded, deep pools with many structural elements that provide cover (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.
   Potential Impact/Mitigation: The South Fork Eel River and its tributaries may provide habitat for the Coho salmon. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation activities should follow restrictions and remain outside of the buffer zone of any SMA.

3. **Steelhead – northern California DPS (*Oncorhynchus mykiss irideus pop. 16*)**
   Special Status: Federally Threatened; NatureServe Ranks: G5T2T3Q, S2S3
   Family: Salmonidae
   Habitat/Life-history Requirements: Steelhead are anadromous rainbow trout that migrate to the ocean as juveniles and return to freshwater habitats to spawn. The Northern California Distinct Population Segment (DPS) ranges from Redwood Creek to just south of the Gualala River, and includes the Eel River watershed (Moyle et al. 2008). Salmonids, including steelhead, require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment. Steelhead may swim upstream during the winter to spawn in stream segments that are not accessible to other salmonids during low flows (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.
   Potential Impact/Mitigation: The South Fork Eel River and its tributaries may provide habitat for the steelhead. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation activities should follow restrictions and remain outside of the buffer zone of any SMA.

4. **Summer-run steelhead trout (*Oncorhynchus mykiss irideus pop. 36*)**
   Special Status: State Candidate Endangered, CDFW Species of Special Concern; NatureServe Ranks: G5T4Q, S2
   Family: Salmonidae
   Habitat/Life-history Requirements: Summer-run steelhead trout remain in freshwater habitats until they reach maturity (Moyle et al. 2008). These steelhead have similar requirements during their juvenile stages, with an additional need for freshwater habitats to remain suitable throughout the summer (Moyle et al. 2008). Summer-run steelhead are sensitive to human disturbance and typically are only found in the most remote areas of the watersheds (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.
   Potential Impact/Mitigation: The South Fork Eel River and its tributaries may provide habitat for the steelhead trout. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation activities should follow restrictions and remain outside of the buffer zone of any SMA.

5. **Chinook salmon – California coastal ESU (*Oncorhynchus tshawytscha pop. 17*)**
   Special Status: Federally Threatened; NatureServe Ranks: G5, S1
   Family: Salmonidae
   Habitat/Life-history Requirements: The Federally Threatened Chinook salmon is the largest Pacific salmonid (Moyle et al. 2008). The California Coast Evolutionary Significant Unit (ESU) is composed of Chinook spawning in watersheds ranging from Redwood Creek south to the Russian River (Moyle et al. 2008). The anadromous salmonids return to these watersheds in the fall to spawn, after the first major rains (Moyle et al. 2008). Chinook, like other salmonids, require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment (Moyle et al. 2008). Juvenile chinook may inhabit estuaries for an extended period (Moyle et al. 2008). Chinook are particularly sensitive to temperature and water quality, and require larger cobble and coarse gravel substrate for spawning compared to other salmonids (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.
   Potential Impact/Mitigation: The South Fork Eel River and its tributaries may provide habitat for the Chinook salmon. All infrastructure within a streamside management area (SMA) should be removed, and future cannabis cultivation activities should follow restrictions and remain outside of the buffer zone of any SMA.

INVERTEBRATES

Potential impacts are evaluated for potentially occurring threatened, endangered, rare, and sensitive insect pollinator species that have been documented in the surrounding 9-quad area. Pollinators are addressed in particular because they may be affected by development and agricultural activities. The western bumble bee is also a candidate for listing under CESA.

1. **Obscure bumble bee (*Bombus caliginosus*)**
   Special Status: CDFW Special Animals List; NatureServe Ranks: G4?, S1S2
   Family: Apidae

Habitat/Life-history Requirements: The obscure bumble bee occupies open grassy coastal prairies and Coast Range meadows (IUCN). This long-tongued species may pollinate flowers with elongated corollas, such as *Keckiella* spp. (IUCN). The obscure bumblebee does not fare well in agricultural or urban/suburban environments, where it is often outcompeted by more common bumblebees (NatureServe). The obscure bumblebee has declined in the San Francisco Bay area, and may be threatened by habitat loss from development (NatureServe).
Potential Impact/Mitigation: The Obscure bumble bee is mapped in CNDDB approximately 3.5 miles away from the project area. The property has the potential to support many native pollinators. Adhering to restrictions and regulations of pesticide use in cannabis cultivation areas, including preventing drift to native vegetation, is expected to minimize the potential impact of cultivation in the area (**BIO-5**).

2. **Western bumble bee (*Bombus occidentalis*)**
Special Status: State Candidate Endangered, NatureServe Ranks: G2G3, S1
Family: Apidae
Habitat/Life-history Requirements: The western bumble bee is a generalist short-tongued forager that may be found in open habitats such as grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows (IUCN). Like many bumble bees, the western bumble bee nests underground in abandoned rodent holes (IUCN). The western bumble bee is threatened by disease, habitat loss and degradation, and insecticides.
Potential Impact/Mitigation: An occurrence of the Western bumble bee is mapped in CNDDB approximately 1 mile from the project area. The property has the potential to support many native pollinators. Adhering to restrictions and regulations of pesticide use in cannabis cultivation areas, including preventing drift to native vegetation, is expected to minimize the potential impact of cultivation on pollinators (**BIO-5**).

4.4 Wildlife Movement and Connectivity

Riparian areas may serve as corridors for wildlife movement, and upland forested areas have increased value to wildlife. It is important to maintain native vegetation communities around riparian areas that may provide cover, forage, and other value to wildlife. It is important that wildlife movement to water and through riparian areas is not impeded by fencing or materials that could cause wildlife to become entangled. Additionally, no plastic bird/deer netting shall be used in cultivation because netting may become an entanglement hazard if it becomes litter in the natural environment.

5. Conclusions

5.1 Summary of Potential Impacts and Mitigations

The three parcels provide potential habitat for numerous sensitive species. The Mitigation measures have been recommended to reduce potential impacts to sensitive species and wildlife movement to less-than-significant levels. Pre-construction raptor are recommended if any trees or habitat removal is proposed (**BIO-1**). Raptor surveys should be continued to protocol until required permits are acquired. The BAA may provide the high canopy-closure forest habitat that supports Northern Spotted Owls (NSO), and surveys for northern spotted owls are recommended. Northern spotted owls should be continued to protocol until required permits are acquired (**BIO-2**). The applicant may avoid indirect impacts to special-status fish, amphibians,

and reptiles by adhering to state and regional waterboard guidelines to minimize runoff from cultivation and observing SMA buffer distances. If any work is proposed within a SMA, Foothill yellow-legged frog and amphibian surveys are recommended prior to any disturbance within the SMA (**BIO-3**). If mix light cultivation or generator use is proposed, light and noise pollution mitigation measures will be recommended (**BIO-4**). If pesticides are used for cannabis cultivation, mitigations for potential impacts of pesticides on pollinators or other sensitive species are recommended (**BIO-5**). Botanical surveys are recommended to cover any areas that will have ground disturbance. If special status species are detected, appropriate protective buffers or other mitigation measures will be established in consultation with CDFW (**BIO-6**). Any ponds used for cannabis must be monitored for the invasive American Bullfrog. Ponds that are not completely drawn down by the end of the dry season must be surveyed for invasive American Bullfrogs annually (**BIO-7**). Plastic netting used in cultivation sites poses a risk to wildlife by potential entanglement in the fencing. All unused netting and fencing must be properly stored in sheds or other containers where they do not pose a threat to wildlife. Use of plastic bird/deer netting at cultivation sites must be discontinued (**BIO-8**). All mitigation measures recommended to reduce impacts to less-than-significant levels are listed in the table below (Table 5.2).

5.2 Recommended Surveys and Mitigation Measures for Potentially Significant Impacts

Name	Impact	Mitigation Description
BIO-1	Raptor Survey	The area will be surveyed for nesting/roosting raptors by scanning the property and surrounding area from prominent location(s).
BIO-2	Northern Spotted Owl (NSO)	USFWS Northern Spotted Owl Protocol surveys (2012) for northern spotted owls are recommended. Northern spotted owl surveys should be continued to protocol until required permits are acquired.
BIO-3	Amphibian Surveys	An individual qualified to identify amphibian species, including Foothill yellow-legged frogs (FYLF) at all life stages shall survey the area of impact and at least 100 feet upstream and downstream for any FYLF and other amphibian species. Any amphibians encountered shall be identified to species level and documented.
BIO-4	Disturbance to wildlife from noise pollution or light pollution	It is recommended that the applicant follow guidelines for reducing light and noise pollution, which may impact sensitive species including bats, NSO, and other birds. Generator use will follow Humboldt County Performance Standards for Generator Noise. Additionally, the following measures are recommended: - The generator should be contained in an insulated structure to muffle noise, and it should be kept outside of SMAs. - The measured generator noise at the forest edge should not exceed ambient levels (<50dB or equivalent to levels at the property edge without the generator). - Temporary noise disturbances (such as running power tools) should occur during daylight hours to minimize disturbance to foraging bats or NSO. - Noise levels from the project should not exceed 75dB at the forest edge during the bird breeding season (Feb. 1-Aug 31)
BIO-5	Potential impacts of pesticides on pollinators	Pesticides that may be used for cannabis cultivation are limited to low-risk exempt substances and those that are broadly labeled by the Department of Pesticide Regulation. The potential impact of insecticide use on pollinators shall be reduced by not spraying in the presence of pollinators and not allowing drift to flowering plants in the surrounding area.
BIO-6	Floristic Survey	Complete floristic surveys based on the Protocol for Surveying and Evaluating Impacts to Special Status native Plant Populations and Natural Communities (CDFW 2018).
BIO-7	American Bullfrog Survey	Ponds that are not completely drawn down by the end of the dry season must be surveyed for invasive American Bullfrogs annually.

BIO-8	Potential wildlife entanglement in netting and fencing	All unused netting and fencing must be properly stored in sheds or other containers where they do not pose a threat to wildlife. Any use of plastic bird/deer netting at cultivation sites must be discontinued.

6. References

Bombay, H.L., Benson, T.M., Valentine, B.E. and Stefani, R.A., 2003. A willow flycatcher survey protocol for California. U.S. Forest Service, Pacific Southwest Region, Vallejo, California.

Bourque, R. 2008. Spatial ecology of an inland population of the foothill yellow-legged frog (*Rana boylii*) in Tehama County, California. Arcata, CA: Humboldt State University. 93 p. M.S. thesis.

CABI, 2019. Rana catesbeiana (American bullfrog). In: Invasive Species Compendium. Wallingford, UK: CAB International. <www.cabi.org/isc>.

CalFish: A California Cooperative Anadromous Fish and Habitat Data Program. Species Pages. http://www.calfish.org/FisheriesManagement/SpeciesPages/PacificLamprey.aspx.

California Department of Fish and Wildlife, Natural Diversity Database, BIOS. 2021. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, CA.

California Department of Fish and Wildlife (CDFW), California Natural Diversity Database, Special Animals List. 2020. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, CA. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>.

Cook, D. G. 2012. *Rana boylii* (Foothill yellow-legged frog). Upland Movement. Herpetological Review 43(2): 325.

Cornell Lab of Ornithology, *"All About Birds: Bird Guide."* <https://www.allaboutbirds.org/guide/search.aspx>.

Craig, D. and P. L. Williams. 1998. Willow Flycatcher (*Empidonax traillii*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. <http://www.prbo.org/calpif/htmldocs/riparian_v-2.html>.

Evans Mack, D., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, P. Harrison, and T. E. Hamer. 2003. Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research. Pacific Seabird Group Technical Publication Number 2. Available from http://www.pacificseabirdgroup.org.

Grinnel, H.W. 1918. A synopsis of bats of California. Univ. Calif. Publ Zool. 17:223-404.

Hamlin, R., L. Roberts, G. Schmidt, K. Brubaker and R. Bosch. 2010. Species assessment for the Humboldt marten (Martes americana humboldtensis). U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office, Arcata, California. 34 + iv pp.

Harris, S.W. 2005. Northwestern California birds. 3rd Ed. Humboldt State Univ., Arcata, CA.

Humboldt County Code Section 314-55, Medical Marijuana Land Uses: Inland <https://humboldt.county.codes/Code/314-55>.

Humboldt County Code Section 314-61, Streamside Management Areas and Wetlands Ordinance < https://humboldt.county.codes/Code/314-61>.

Hunter, J.E., Fix, D., Schmidt, G.A., and Power, J.C. 2005. Atlas of the breeding birds of Humboldt County, California. Redwood Region Audubon Society.

Lowther, P. E., C. Celada, N. K. Klein, C. C. Rimmer, and D. A. Spector (1999). Yellow Warbler (Setophaga petechia), version 2.0. In The Birds of North America (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.

Moyle, P.B., J.A. Israel, and S.E. Purdy. 2008. Salmon, Steelhead, and Trout in California: Status of an Emblematic Fauna. U.C. Davis Center for Watershed Sciences.

Nafis, G. 2000-2017. California Herps - A Guide to the Amphibians and Reptiles of California. <http://www.californiaherps.com/>

NatureServe. 2020. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org>.

Rodewald, P. (Editor). 2015. The Birds of North America: https://birdsna.org. Cornell Laboratory of Ornithology, Ithaca, NY.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. <https://www.wildlife.ca.gov/Conservation/SSC/Birds>.

Sibley, D.A., 2003. The Sibley field guide to birds of Western North America. Alfred A. Knopf, New York.

State Water Resources Control Board Order WQ 2019-0001-DWQ. General Waste Discharge Requirements And Waiver Of Waste Discharge Requirements For Discharges Of Waste Associated With Cannabis Cultivation Activities. <https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf>.

Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. Biological Conservation 142: 2282-2292.

U.S. Fish and Wildlife Service (USFWS ECOS). ECOS Environmental Conservation Online System. <https://ecos.fws.gov/ecp/>.

U.S. Fish and Wildlife Service (USFWS). 2006. Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California. Arcata, CA.

U.S. Fish and Wildlife Service (USFWS). 2011. Revised Critical Habitat for the Marbled Murrelet: Final rule. Federal Register (76 FR 61599 61621). <https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=4467>

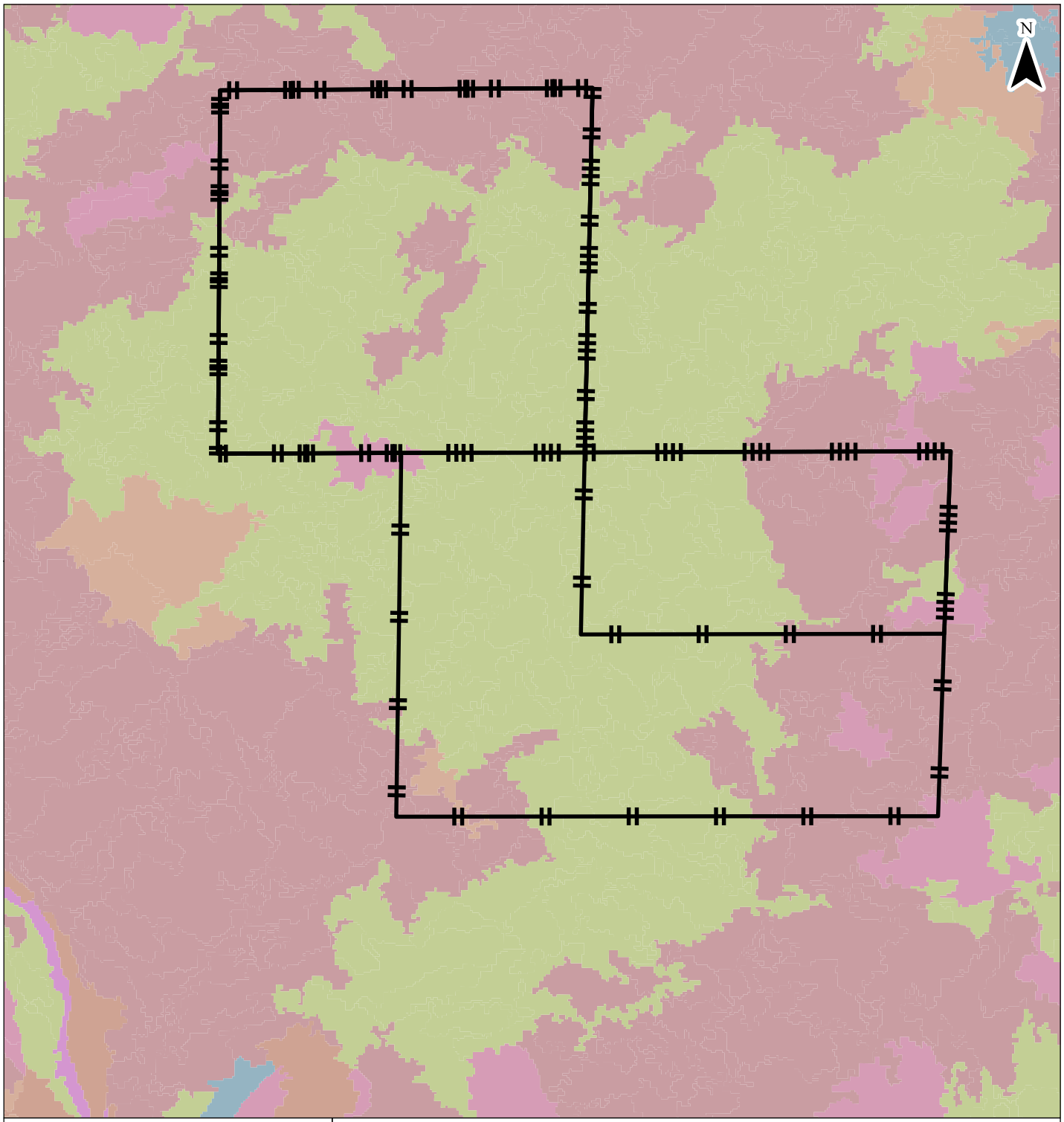
U.S. Fish and Wildlife Service (USFWS). 2014. Draft Species Report: Fisher (*Pekania pennanti*), West Coast Population. <https://www.fws.gov/yreka/20140911_WCFSR_finaldraft.pdf>.

Xerces Society for Invertebrate Conservation. Bumble bee conservation. Portland, OR. <http://xerces.org/bumblebees/>.

Yarnell, S. 2013. ‘Stream Habitat Associations of the Foothill Yellow-LeggedFrog (*Rana boylii*): The Importance of Habitat Heterogeneity,’ in Maddock, I., Harby, A., Kemp, P., and Wood, P., *Ecohydraulics: An Integrated Approach*, First Edition. JohnWiley & Sons, Ltd., p. 93.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program Staff, February 2005. <https://www.wildlife.ca.gov/data/cwhr/life-history-and-range>.

Attachment A. CALVEG Vegetation Alliance Map



Mazari Farms Inc. & Flore Farms Inc.
APN: 223-074-004, 223-074-006,
& 223-074-009
CALVeg Map

Section 29; T4S; R4E; HB&M;
Humboldt County
Located on the Garberville & Harris 7.5'
USGS Quadrangle

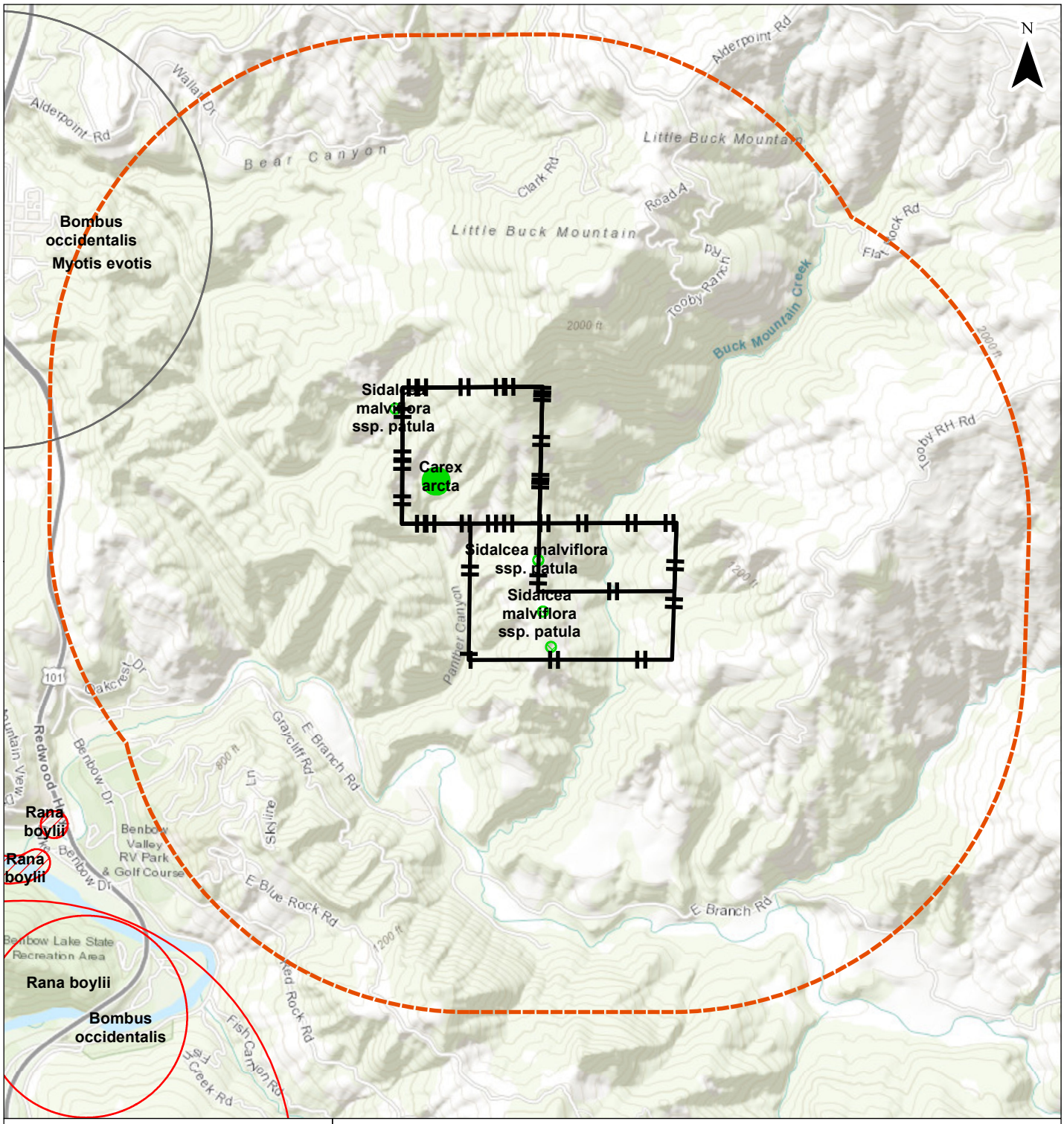
- Parcel Boundaries
- Annual Grasses and Forbs
- Barren
- California Bay
- Oregon White Oak
- Pacific Douglas-Fir
- Redwood - Douglas-Fir
- Tanoak (Madrone)

0 480 960 1,920 Feet

Contour Interval: 40'
1 inch = 1,043 feet

Hohman And Associates Forestry Consultants
Date: 1/20/2021

Attachment B. CNDDB Special Status Taxa Search Map



Mazari Farms Inc. & Flore Farms Inc.
APN: 223-074-004, 223-074-006, & 223-074-009
CMDDB Database Map

Section 29; T4S; R4E; HB&M;
Humboldt County
Located on the Garberville & Harris 7.5' USGS Quadrangle

Parcel Boundaries
1.3 mi BAA

Symbology

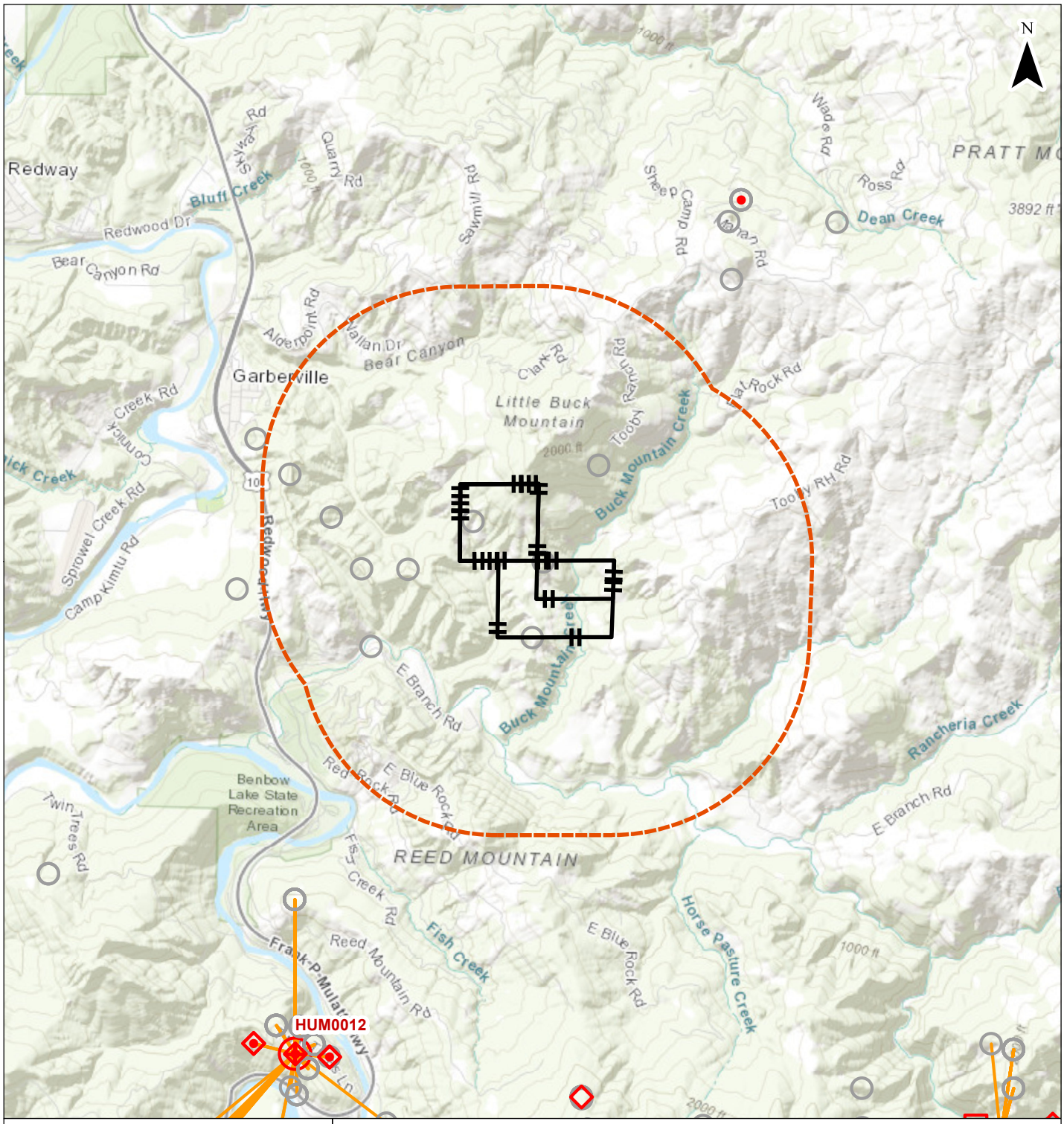
Plant (80m)
Plant (specific)
Animal (non-specific)
Animal (circular)
Multiple (circular)

0 1,250 2,500 5,000 Feet

Contour Interval: 40'
1 inch = 2,783 feet

Hohman And Associates Forestry Consultants
Date: 1/19/2021

Attachment C. NSO Database Check Map



Mazari Farms Inc. & Flore Farms Inc.
APN: 223-074-004, 223-074-006, & 223-074-009
NSO Map

Section 29; T4S; R4E; HB&M;
Humboldt County
Located on the Garberville & Harris 7.5' USGS Quadrangle

Parcel Boundaries
1.3 mi BAA

SYMBOLOGY

Nest
Young
Pair
Other Positive Observation
Negative Observation
Activity Center
Spotted Owl Spider Diagram

0 2,250 4,500 9,000 Feet

Contour Interval: 40'
1 inch = 4,954 feet

Hohman And Associates Forestry Consultants
Date: 1/19/2021

Attachment D. Habitat and Site Photos

Photos 1 & 2. Two of the five Cannabis Cultivation Sites with inactive hoop houses. January 19, 2021.

Photo 3. Pond site proposed to be removed and remediated. January 19, 2021.

Photo 4. Site proposed for new pond location. Oakwood land that partially burned in 2015. January 19, 2021

Attachment E. Rank Definitions

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 (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# **Infraspecific Taxon** (trimonial) – 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.

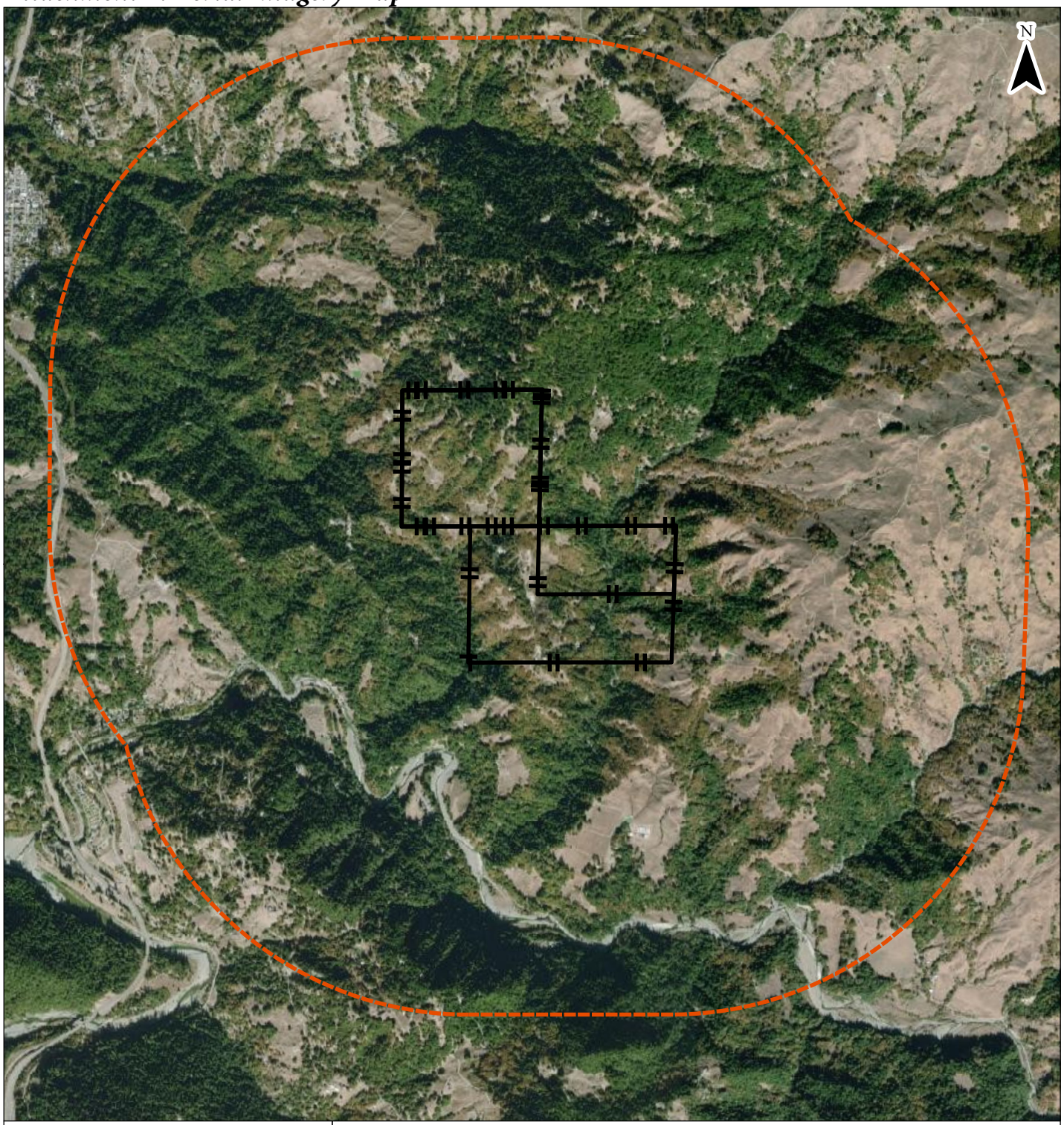
S#S# **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

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.

Attachment F. Aerial Imagery Map



Mazari Farms Inc. & Flore Farms Inc.
APN: 223-074-004, 223-074-006, & 223-074-009
Aerial Imagery Map

Section 29 ; T4S; R4E; HB&M; Humboldt County
Located on the Garberville & Harris 7.5' USGS Quadrangle

Parcel Boundaries
1.3 mi BAA

0 1,250 2,500 5,000 Feet

Contour Interval: 40'
1 inch = 2,783 feet

Hohman And Associates Forestry Consultants
Date: 1/19/2021