



Providing Professional Forestry Services

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June 15, 2020

County of Humboldt
Planning and Building Department
3015 H Street
Eureka, CA 95501



Dear Humboldt County Planning Division:

Blair Forestry Consulting LLC conducted a review of relevant databases and literature regarding the possible presence of rare or endangered species within the project site at APN 521-123-005. A site inspection was conducted in the beginning of April, 2020 to review site conditions and evaluate the necessity for protocol level surveys associated with disturbance from cultivating cannabis.

Blair Forestry Consulting LLC exercised due diligence in reviewing the project site, conducting an assessment for the likelihood of presence of rare and endangered species and providing a biological survey report with a qualified biologist's findings.

Sincerely,
Blair Forestry Consulting LLC

Thomas F. Blair, Registered Professional Forester 2607

CONFIDENTIAL

June 1, 2020

Biological Resources Assessment for the Schultz Cannabis Cultivation Project

1. INTRODUCTION

The Schultz Cannabis Cultivation Project, or Schultz Project, involves an existing outdoor marijuana growing operation on Assessor's Parcel Number (APN) 521-123-005. Located about 8.7 miles northwest of the small town of Willow Creek, in eastern Humboldt County, Section 13 of Township 7 North, Range 3 East, HBM, the Schultz Project is located on Pine Ridge Summit. Pine Ridge Summit is situated on the ridgeline above the Pine Creek drainage, which flows to the Klamath River and Minor Creek drainage, which flows to Redwood Creek (See Figure 1, General Location Map). There are no watercourses associated with the project area and no water enters either drainage from the project area.

Currently the Schultz Project is operating with an interim permit (APPS No: 10430) issued by the Humboldt County Planning and Building Department's (HCPBD) Cannabis Service Division totaling 9,800 square feet (sq. ft.) of existing outdoor and 1,200 sq. ft. of mixed-light cultivation (not involving artificial light). The HCPBD has since reassessed the area of pre-existing cultivation and has revised the Cultivation Area Verification (CAV) to 17,000 sq. ft. Documents from the California Department of Fish and Wildlife (CDFW) indicate that they have approved 15,200 sq. ft. of cultivation but have concerns approving mixed-light cultivation prior to conducting 2 years of northern spotted owl (NSO) surveys.

With the revised CAV of 17,000 sq. ft., the landowner intends to proceed utilizing 2,500 sq. ft. of mixed light (artificial light) and 14,000 sq. ft. of full-term cultivation. The landowner has requested that Blair Forestry, LLC assess potential detrimental environmental impacts of existing and proposed cultivation activities be addressed. Specifically, HCPBD Cannabis Services Division, in a letter dated October 2, 2019, requested the following information:

- *"There are documented Northern Spotted Owl (NSO) and Marbled Murrelet (MAMU) occurrences on the parcel, please submit a scoping report for NSO and MAMU habitat prepared by a biologist or forester with experience in the life history of the species and prepare a light and noise attenuation plan. Conformance shall be evaluated using auditory disturbance guidance prepared by the United States Fish and Wildlife Service and any other published literature.*
- *There is habitat for endangered species (in addition to NSO and MAMU) within the project site and new structures are proposed; therefore, a biological survey report prepared by a qualified biologist for all existing and proposed development is required. The minimum requirements of the report are:*
 - o *A review of relevant databases, literature, etc. regarding possible present species for both animals and plants,*
 - o *A review of site-specific conditions as to the likelihood of hosting habitat for species, and*
 - o *If habitat is present, completion of protocol level surveys."*

A site visit was conducted on April 3, 2020 by Alex Powell, B.S. who has an education in Wildlife Management with experience consulting in northern California forest-wildlife matters since 2004. Mr. Powell has experience in conducting biological and botanical surveys and assessing potential impacts of protected and sensitive species including rare plants, raptors, mammals and northern spotted owls. This assessment also involved consultation with Troy Leopardo, a wildlife biologist and "Spotted Owl Expert"

(SOE) who has consulted in forest-wildlife matters since 1990 and specializes in biological investigations for protected and sensitive species in compliance with State and Federal law.

Consequently, this biological resource assessment focuses on potential impacts of existing and proposed commercial agricultural activities pursuant to California Environmental Quality Act (CEQA) statute (Public Resources Code Section 21000 and following); the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 and following), published court decisions interpreting CEQA, and locally adopted CEQA procedures.

In addition to addressing current cannabis cultivation at Cultivation Area #1 (CA#1), it also addresses a site not currently permitted for use (CA#2). Streamlining investigation of potential significant environmental impacts, this report incorporates and builds upon (tiers) existing documentation. Specifically, in addition to the project's Water Resources Protection Plan (WRPP) prepared by Timberland Resource Consultants (TRC), this report relies on a Detailed Premises Diagram (Site Plan Map, Figure 2) developed in May 2018 by Trinity Valley Consulting Engineers (TVCE). According to Cal Trees, CalFire's Timber Harvest Document search engine, forest clearings for cannabis cultivation fall under an approved Conversion Exemption (1-16EX-135-HUM).

2. PROJECT DESCRIPTION

The current cannabis operation is located at Cultivation Area #1 (CA#1) and pertains to APPS No: 10430, an interim permit for 11,000 sq. ft., currently consisting of 10,000 sq. ft. of full-term cultivation on level ground. CA#1 utilizes full-term cultivation both in greenhouse and open cultivation totaling 10,000 sq. ft. Additionally, there is a 2nd cultivation area not currently in use (CA#2) that is a 2,850 sq. ft. concrete pad that the landowner would like to incorporate for mixed-light cultivation (utilizing artificial light, pers. comm. with landowner).

The property is off-the-grid and currently powered by 2 small generators which are only used for occupants living on the property in a 5th wheel trailer approximately 250 ft. north of CA#1. There are currently no residential compounds on the 170-acre (assessed) ownership. The only structures present consist of a small nutrient storage shed at CA#1 and a metal shop approximately 170 ft. north of CA#1.

Water for irrigation comes from a State Water Resources Control Board (State Water Board) diversion permit (Certificate H100466) and a 100,000-gallon man-made rain catchment and cutbank seep fed pond. Currently this cultivation project has a total of 20,000 gallons of other storage in rigid plastic water tanks. Nevertheless, the landowner intends to expand water storage up to 100,000 gallons in ridged plastic water tanks on a flat lower down the ridgeline just southeast of CA#1 (pers. Comm. with landowner).

The proposed use of CA#2 will require a light and sound attenuation plan if the landowner intends to utilize mixed-light cultivation *with artificial light* and ventilation. Although State and County definitions for mixed light cultivation differ, any proposed greenhouse activity at CA#1 or CA#2 utilizing artificial light would be covered with tarps in adherence to International Dark Sky Association guidelines for Lighting Zone 0 and Lighting Zone 1. A sound attenuation plan would need to be developed to reduce sound levels at the edge of suitable habitat or within 100 feet to below the 50 decibel (dB) threshold for disturbance established by CDFW for NSOs in Humboldt County.

Although no major site remediation or clean-up work threatening water quality was identified, the WRPP includes monitoring for the expansion of newly expanded terraces that was in progress as well as to monitor the pond embankment, fill slope and overflow. Additionally, the WRPP requested that gas cans and fuel storage be secondarily contained.

3. ENVIRONMENTAL SETTING

Situated above the headwaters of both Pine Creek and Minor Creek on Pine Ridge Summit this parcel is located east and south of land managed by the Bureau of Land Management (BLM) including Lack's Creek Management Area. Cultivation Areas #1 and #2 are located on the summit and a ridgeline saddle at 3,520 feet and 3,460 feet in elevation, respectively. Medical marijuana appears to have been grown on this ownership since 2012 on land cleared and graded. Classified according to "A GUIDE TO WILDLIFE HABITATS OF CALIFORNIA" (Mayer and Laudenslayer 1988), the proposed cannabis project will be conducted in cleared Douglas-fir forest.

Approximately 17 miles from the coast and at 3,460+ ft. in elevation, this project is likely outside the range of the marbled murrelet (*Brachyramphus marmoratus*, MAMU). Additionally, due to previous timber management in the vicinity of the project area, much utilizing clearcut silviculture, dictates that late seral habitat preferred by MAMU is not present in any abundance. According to California Natural Diversity Data Base (CNDDDB) there are no known occurrences of MAMU near the project area. However, CNDDDB reports two historical northern spotted owl (NSO) (*Strix occidentalis caurina*) Activity Centers (AC) within 1.3 miles; HUM0158 and HUM0789.

Potential NSO habitat associated with proposed cultivation activities was assessed with respect to its structure and existing baseline conditions. No generators associated with currently permitted cultivation activities were in place at the time of the site visit. Only 2 small generators used by people living on site in a fifth-wheel trailer were present. Measuring noise levels of the 2 onsite generators running separately (both Honda EU 2200 I) with an EXTECH Digital Sound Level Meter Model 407730 sound meter, found the sound levels below the 50 decibel (dB) at 100 ft. and/or the edge of suitable habitat, the threshold for disturbance established by CDFW for NSOs in Humboldt County.

4. REGULATORY SETTING

Proposition 64 (the California Marijuana Legalization Initiative) gives each municipality the right to make their own rules. As such, HCPBD began accepting applications for projects in the Inland Zone after the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) was adopted by the Board of Supervisors on February 26, 2016. Accordingly:

"It is intended to address the County of Humboldt's prerogative to license, permit, and control commercial cultivation, processing, manufacturing and distribution of cannabis for medical marijuana as set forth in the MMRSA, including, but not limited to the provisions of Business and Professions Code Sections 19315, 19316, 19320, 19322, 19332, and 19360 and Health and Safety Code Section 11362.777, in conjunction with state licensing requirements, in order to protect the public health, safety, and welfare of the residents of the County of Humboldt, and to reduce or eliminate any adverse environmental effects of existing commercial cannabis cultivation operations in the County of Humboldt, and to prevent adverse environmental effects of any new commercial cannabis activities which may be permitted in the future in accordance with this Section and state law."

The Commercial Cannabis Land Use Ordinance (CCLUO), as revised on January 11, 2018, limits the maximum allowable cultivation area for outdoor and/or mixed light cultivation to the size of the existing cultivation area prior to January 1, 2016. As per Section 314-55.4.9, Table of Humboldt County Commercial Cannabis Cultivation Permit Types – Inland Zone, the maximum area for an existing cultivation project, on a single parcel ten acres or larger, is 22,000 sq. ft. for mixed-light and 43,560 sq. ft. for outdoor cultivation.

Although 55.4.6.5 provides accommodations for pre-existing cultivation sites that exempts them from performance standards required of new developments, general provisions applicable to all commercial cannabis land use activities intended to alleviate adverse environmental impacts require permittee to address potential disturbance of federally listed species in accordance to the Endangered Species Act (ESA). Regulations adopted by Humboldt County for existing cannabis related commercial activities specify:

“The noise produced by a generator used for cannabis cultivation shall not be audible by humans from neighboring residences. The combined decibel level for all noise sources, including generators, measured at the property line shall be no more than 60 decibels. Where applicable, sound levels must also show that they will not result in the harassment of Marbled Murrelet or Spotted Owl species. Conformance will be evaluated using current auditory disturbance guidance prepared by the United State Fish and Wildlife Service, and further consultation where necessary.”

Whereas CDFW has compelled HCPBD to adopt stricter guidelines for NSO disturbance; additionally, cannabis cultivators applying for an Annual License from the California Department of Food and Agriculture must address potentially significant adverse environmental effect in accordance with CEQA. Although CEQA does not directly regulate land use, it does require state and local agencies to follow a protocol of analysis and public disclosure. Consequently, this biological assessment relies on thresholds of environmental significance for biological resources and associated mitigations adopted under the 1973 Z'berg-Nejedly Forest Practice Act (Public Resources Code Section 4551 et seq.).

Hereto referred to as the California Forest Practice Rules (FPRs), these rules are functionally equivalent to CEQA. Multiple Timber Harvest Plans (THPs) have taken place adjacent and within 1.3 miles of the subject parcel (1-97-508-HUM, 1-98-330-HUM, 1-00-297-HUM) mostly involving clearcut silviculture. Additionally, the clearing of up to three acres in size are exempt from preparing a full-blown THP because such limited habitat modifications are a fundamental landowner right, as long as they comply with other federal, State and County ordinances. Clearings on the parcel, both CA#1 and CA#2, fall under approved CalFire document 1-16EX-135-HUM and satisfy Humboldt County Code, Ordinance No. 2559 (Commercial Medical Marijuana Land Use), Section 55.4.10(j).

While the USFWS and the National Marine Fisheries Service (NMFS) have authority over federally listed species and USFWS enforces the Migratory Bird Treaty Act (MBTA), CDFW is responsible for implementation the California Endangered Species Act (CESA). Other relevant environmental laws include the Federal Clean Water Act (CWA), the Bald and Golden Eagle Protection Act, as well as the California Fish and Game Code. Under the California Code of Regulations (CCR), Title 14, §15096, the Department is also authorized to comment and make recommendations on CEQA projects. However, it is important to note that permitting legal cannabis cultivation in accordance to due process, and in a manner that prevents or minimizes significant environmental impacts, is ultimately a Humboldt County responsibility.

5. BIOLOGICAL COMMUNITIES

Preliminary environmental scoping included a literature review of floral and faunal communities likely impacted by the proposed cannabis cultivation using CDFW's List of Special Animals (2018). A CNDDDB 9-quad scoping query for special status animals and plants was conducted within the Lord-Ellis Summit quadrangle and surrounding USGS quadrangles (See Tables 1 and 2). Additionally, a more focused Biological Assessment Area of within 1.3 miles the project area was developed (See Figure 3 -Biological Assessment Area Map). Within the 1.3 mile Biological Assessment Area, in addition to NSOs, the CNDDDB records four other special status species; foothill yellow-legged frog (*Rana boylei*), Pacific Gilia

(*Gilia capitata ssp. pacifica*), coast fawn lily (*Erythronium Revolutum*) and giant fawn lily (*Erythronium oregonum*).

More than 4,000 feet from the nearest Class I watercourse within either of the project's watersheds, detrimental effects to anadromous fisheries and foothill yellow-legged frogs (*Rana boylei*) have been dismissed because proposed activities do not impact key habitats in ways that could reasonably be significant. However, a more comprehensive assessment of floral and faunal communities potentially impacted by proposed cannabis cultivation has been conducted by grouping protected and sensitive amphibians, reptiles, birds and mammals in ecological management guilds.

Specifically, detrimental environmental impacts potentially attributed to the proposed project have been addressed in terms of effects to Northern Spotted Owl and Late Mature Forest Guild Species, Eagles, Hawks, Falcons and Forest Raptors, Aquatic/Wet Site Guild Species, Forest Mustelids, Bats and Other Small Mammals, and Special Status Plants.

6. DISCUSSION OF ENVIRONMENTAL IMPACTS

Article 5 of the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Sections 15000-15387) provides rules for "Preliminary Review of Project and Conduct of Initial Study". Concerned with present plant or animal communities threatened by local elimination, in jeopardy of experiencing substantial habitat reduction, or dropping below self-sustaining levels as a result of proposed project [§15065(a)(1)], CEQA requires that a decision-making body provide substantial evidence of significant environmental effects before empowering lead agency to authorize additional mitigations or alternatives [§15126.4 (a)(3)].

To the best extent possible, such arguments should contain an element of Forecasting (§15144), as well as a degree of Specificity (§15146), and Technical Detail (§15147). Limited to activities which are within the agency's area of expertise [§15096 (d)], comments need to be written in a manner that is meaningful and useful to decision making body and the public [§21003(b)].

"Argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence" [§21080(e)(2)].

Consequently, biological resources potentially impacted by proposed cannabis cultivation have been discussed with emphasis on CEQA significance, starting with those listed under the ESA, followed by species protected under the CESA, and lastly, non-listed species of special concern. Potential detrimental effects to animals with large territories were considered inside 1.3 miles but impacts to species with smaller ranges and/or specific habitat requirements were evaluated within the disturbance footprint of proposed operations.

Parameters used to appraise potential CEQA significance included (1) occurrence and distribution of the species in relation to the project area, (2) species' sensitivity to disturbance, (3) existing baseline conditions, and (4) its legal status and population size. A species was dropped from further consideration, if the project area was found to occur outside its distribution, or vital habitat requirements for that species were absent.

Northern Spotted Owl and Late Mature Forest Guild Species

The NSO require mature forest patches with permanent water and suitable nesting trees and snags (Zeiner et al. 1990). Although initially believed to be old growth obligate, NSOs commonly occur in younger forest types of northern California (USDA 1994), but share an affinity for mature forest with other sensitive species dependent on the larger, more decadent trees, downed woody debris and the lower ambient temperatures characteristic of forest interior conditions. However, rather than habitat encroachment, it seems competition from the closely related, exotic and invasive barred owl (*Strix varia*) is now regarded as the largest threat to the California NSO population (USFWS 2011).

The surrounding landscape has historically undergone habitat modification in the form of logging. As discussed previously, the project area has undergone habitat modification in the form of tree removal and an approved Timberland Conversion Exemption.

Information obtained from a CNDDDB inquiry on May 14, 2020 indicates positive observations associated with both HUM 0158 and HUM 0789 only through 1995 and negative observations beyond 1995. However, there is no survey data beyond 2001 in the Database indicating a large gap in survey effort through the present. Although no known NSO ACs are present within one-quarter mile of the project area according to CNDDDB, suitable NSO habitat is present within one-quarter mile of the proposed project areas CA#1 and CA#2. Utilizing mixed-light cultivation as proposed by the landowner could create a disturbance and a light and noise attenuation plan would need to be developed.

Assessed in accordance to “**Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006)**”, disturbance may reach the level of take when at least one of the following conditions is met:

- *Project-generated sound exceeds ambient nesting conditions by 20-25 decibels (dB).*
- *Project-generated sound, when added to existing ambient conditions, exceeds 90 dB.*
- *Human activities occur within a visual line-of-sight distance of 40 m or less from a nest.*

Cannabis cultivation does not generate the same type of disturbance as logging and given that no additional habitat will be removed or modified, impacts to these guild species are unlikely. However, for the purposes of this assessment, potential disturbance from cannabis cultivation activities would minimally need to be assessed and comply with Dark Sky Association guidelines for Lighting Zone 0 and Lighting Zone 1 and with to the 50 decibel (dB) threshold for disturbance, at 100 feet or the edge of habitat, as specified by the CDFW for NSOs associated with cannabis cultivation in Humboldt County.

Eagles, Hawks, Falcons and Forest Raptors

Bald eagles (*Haliaeetus leucocephalus*) typically nest close to large bodies of water such as streams and rivers for both nesting and wintering but, this habitat is not present near the project area. Although there are no recorded occurrences of Northern Goshawk (*Accipiter gentilis*) and American peregrine falcon (*Falco peregrinus anatum*) within the 1.3-mile Biological Assessment Area, there are occurrences on the 9-quad scoping output. The project Area and surrounding landscape was visually and audibly assessed for raptor nests and any raptor activity.

No raptors or raptor nests were observed or heard in association with this project or the surrounding landscape on site visit. Given existing environmental baseline conditions and that proposed cannabis

cultivation activities do not involve additional habitat removal, it is reasonable to conclude that this project will not significantly impact these guild species. Additionally, the adoption of a sound attenuation plan for any for any proposed activities above the 50 decibel (dB) threshold for disturbance at 100 feet or the edge of NSO habitat will help to mitigate any potential for noise disturbance of these species.

Aquatic/Wet Site Guild Species

The CNDDDB records a mapped occurrence from 1960 of foothill yellow-legged frog (*Rana boylei*) around the project area. The detailed location notes of this occurrence are described as “between Redwood Creek and Hoopa, Piney Ridge” and that this location was “mapped by CNDDDB as a best guess”. Given the habitat requirements for this species in relation to this projects hilltop location, any potentially significant impact to this species is dismissed. Significant impacts to other species such as willow flycatcher (*Empidonax traillii*), yellow-breasted chat (*Icteria virens*), and bank swallow (*Riparia riparia*) are also dismissed as preferred habitat is not associated with the project area. Located outside the Stream Management Areas (SMAs), there are no known listed Aquatic/Wet Site Guild Species directly associated with this project.

Lumped together based on their affinity for water and riparian habitat, other non-listed guild species likely to occur in these watersheds include pacific giant salamander (*Dicamptodon tenebrosus*), southern torrent salamander (*Rhyacotriton variegatus*), rough-skinned newt (*Taricha granulosa*), northern red-legged frog (*Rana aurora*) and tailed frog (*Ascaphus truei*). However, given extensive watershed protection incorporated into cannabis cultivation activities on this ownership, potential significant impacts to these guild species can reasonably be regarded as mitigated.

On site visit, the man-made reservoir pond was occupied by Pacific tree frogs (*Pseudacris regilla*) and no American bullfrogs (*Rana catesbeiana*) were detected. Nevertheless, additional measures for reservoirs commonly requested by CDFW include invasive species management, such as annual survey for American bullfrog and draining the pond once a year, if bullfrogs are observed.

Forest Mustelids, Bats and Other Small Mammals

Although the surrounding mixed hardwood-conifer forest is likely to contain suitable habitat for Sonoma tree vole (*Arborimus pomo*) and fisher (*Pekania pennanti*), the project area itself is unsuitable habitat. Preferred habitat for white-footed vole (*Arborimus albipes*) is not associated with the project area. Grasslands or open meadows potentially suitable for American badgers (*Taxidea taxus*) do not occur in association with this project. The project is outside the geographic range of the Humboldt marten (*Martes americana humboldtensis*, USFWS 2018) and suitable habitat for Townsend’s big-eared bats (*Corynorhinus townsendii*) was not observed in association with this project. Prohibited from using rodenticides and monofilament netting and given that proposed cannabis cultivation does not involve additional habitat encroachment, it is unlikely to significantly impact sensitive forest mammal populations.

Protected Plant Guild

The CNDDDB reports Pacific Gilia (*Gilia capitata ssp. pacifica*), coast fawn lily (*Erythronium Revolutum*) and giant fawn lily (*Erythronium oregonum*) within the 1.3-mile Biological Assessment Area of the project. Although habitat for these species is likely present on the property, it was not present on the project site. Additionally, the site visit occurred during a period where *Erythronium* sp. plants would have been detectable. Nevertheless, considering existing baseline conditions, potential impacts to sensitive botanical communities can reasonably be dismissed, because proposed cannabis cultivation does not

involve additional ground disturbance of the type that could affect sensitive plant communities in ways that could be CEQA significant.

7. CONCLUSION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

In conclusion, the project operating under interim permit (APPS No: 10430) - not involving mixed-light cultivation utilizing artificial light, this biological assessment found no plant or animal community potentially impacted by cannabis cultivation activities in manner that would be CEQA significant.

In lieu of 2 years of NSO surveys, proposed activities at CA#2 involving mixed-light cultivation will require further assessment, or a light and noise attenuation plan will need to be developed. This plan should comply with Dark Sky Association guidelines for Lighting Zone 0 and Lighting Zone 1 and with the 50 decibel (dB) threshold for disturbance, at 100 feet or the edge of habitat, as specified by the CDFW for NSOs associated with cannabis cultivation in Humboldt County.

Annual surveys for American bullfrogs (*Rana catesbeiana*), an invasive species, may be requested by CDFW for the pond site. If bullfrogs are found to occupy the pond site it could also be requested that the pond be drained annually.

Held to higher environmental standard than other legally permitted land uses, the implementation of the CCLUO has also resulted in severely reducing the harmful effects of illegal growing. However, as other States legalize cultivation, and wholesale cannabis prices continue to fall, cannabis cultivation is likely to gradually decrease in Humboldt County, further alleviating potentially harmful cumulative environmental impacts.

8. SOURCES AND LITERATURE CITED

Association for Environmental Professionals (AEP). 2018. California Environmental Quality Act (CEQA) Statute and Guidelines, califaep.org

CalFire Watershed Mapper; accessed May 15, 2020; https://egis.fire.ca.gov/watershed_mapper/

California Department of Fish and Wildlife. 2020. Natural Diversity Data Base Spotted Owl Data Viewer. May 15, 2020 Report

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed May 15, 2020].

Dugger, K.M., F. Wagner, R.G. Anthony, and G.S. Olson. 2005. The relationship between habitat characteristics and demographic performance of northern spotted owls in southern Oregon. *The Condor* 107:863-878.

Dwyer, L.E., D.D. Murphy. (1995) Fulfilling the Promise: Reconsidering and Reforming the California Endangered Species Act. *Natural Resources Journal* Vol. 35 Fall 1995

Franklin, A.B., D.R. Anderson, R.J. Gutierrez, and K.P. Burnham. (2000). Climate, habitat quality, and fitness in northern spotted owl populations in northwestern California. *Ecological Monographs*, 70(4): 539-590.

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.

International Dark-Sky Association, accessed May 15, 2020; <https://www.darksky.org/our-work/lighting/public-policy/model-lighting-laws-policy/lighting-zones/>.

Jameson, E. W., and Hans J. Peeters. 2004. Mammals of California. University of California Press, Berkeley and Los Angeles, California.

Kern, B.D. 1999. Permitting the Take: An Analysis of Section 2081 of the California Endangered Species Act. 8 New York University Environmental Law Journal 74 (1999 2000)

Mayer, K.E and William F. Laudenslayer (1988). A Guide to Wildlife Habitats of California. California Dep. Of Forestry and Fire Protection, Pacific Southwest Forest and Range Experiment Station (Berkeley, Calif.)

USDA 1994. Final supplemental environmental impact statement on management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. USDA Forest Service, Portland, Oregon, and USDI Bureau of Land Management, Portland, Oregon.

U.S. Fish and Wildlife Service. 2006. Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California. July 26, 2006.

U.S. Fish and Wildlife Service. 2011. Revised Recovery Plan for the Northern Spotted Owl (*Strix occidentalis caurina*). U.S. Fish and Wildlife Service. Portland, Oregon. Xvi+258pp.

U.S. Fish and Wildlife Service. 2012 Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls. Endorsed by the U.S. Fish and Wildlife Service February 2, 2011 Revised January 9, 2012.

U.S. Fish and Wildlife Service. 2018. Arcata Fish and Wildlife Office, Arcata, California, Revised October 9, 2018. <https://www.fws.gov/arcata/es/mammals/HumboldtMarten/humbMarten.html>, accessed May 18, 2020.

Zeiner et al. 1990. California's Wildlife, Volume II Birds. Editors. David C. Zeiner. William F. Laudenslayer, Jr. Kenneth E. Mayer. Marshall White.

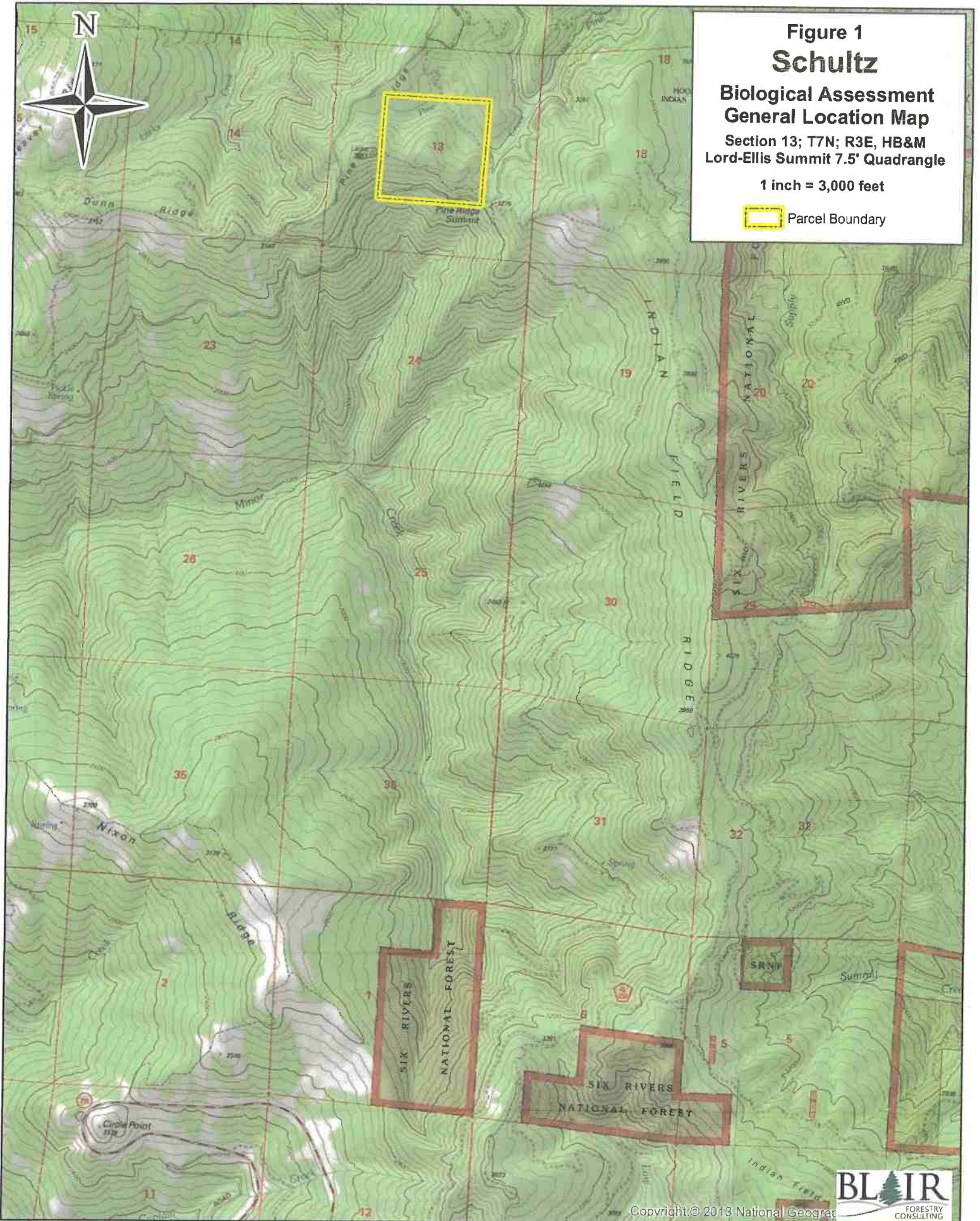


Figure 1
Schultz
Biological Assessment
General Location Map
 Section 13; T7N; R3E, HB&M
 Lord-Ellis Summit 7.5' Quadrangle
 1 inch = 3,000 feet
 [Yellow dashed box] Parcel Boundary

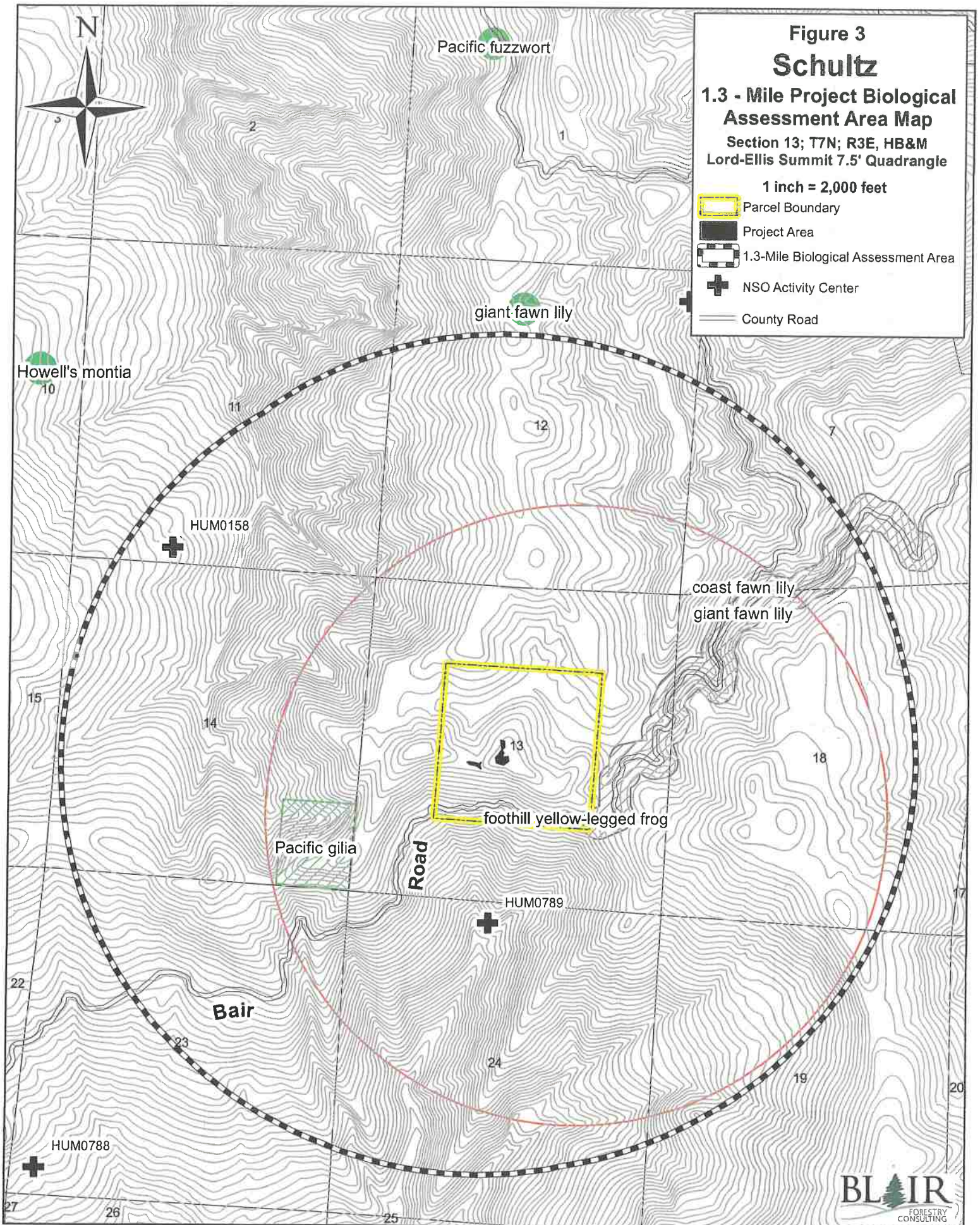


Figure 3

Schultz

1.3 - Mile Project Biological Assessment Area Map

Section 13; T7N; R3E, HB&M
Lord-Ellis Summit 7.5' Quadrangle

1 inch = 2,000 feet






-  Parcel Boundary
-  Project Area
-  1.3-Mile Biological Assessment Area
-  NSO Activity Center
-  County Road

Table 1. Special Status Wildlife Scoping List for Jones-Schultz Project; APN 521-123-005 Biological Assessment
 Section 13, Township 7 North, Range 3-East, HB&M
 Lord-Ellis Summit USGS 7.5' USGS Quadrangle 9-Quad Search

Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
Amphibians						
<i>Ascaphus truei</i>	Pacific tailed frog	None	None	SSC	Aquatic Klamath/North coast flowing waters Lower montane coniferous forest North coast coniferous forest Redwood Riparian forest; Occurs in montane hardwood-conifer, redwood, Douglas-fir & ponderosa pine habitats; Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	No.
<i>Plethodon elongatus</i>	Del Norte salamander	None	None	WL	Oldgrowth; Old-growth associated species with optimum conditions in the mixed conifer/hardwood ancient forest ecosystem; Cool, moist, stable microclimate, a deep litter layer, closed multi-storied canopy, dominated by large, old trees.	No.
<i>Rana aurora</i>	northern red-legged frog	None	None	SSC	Klamath/North coast flowing waters Riparian forest Riparian woodland; Humid forests, woodlands, grasslands, and streambanks in northwestern California, usually near dense riparian cover; Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	No.
<i>Rana boylei</i>	foothill yellow-legged frog	None	Candidate Threatened	SSC	Aquatic Chaparral Cismontane woodland Coastal scrub Klamath/North coast flowing waters Lower montane coniferous forest Meadow & seep Riparian forest Riparian woodland Sacramento/San Joaquin flowing waters; Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats; Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	No.
<i>Rhyacotriton variegatus</i>	southern torrent salamander	None	None	SSC	Lower montane coniferous forest Oldgrowth Redwood Riparian forest; Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest; Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	No.

Table 1. Special Status Wildlife Scoping List for Jones-Schultz Project; APN 521-123-005 Biological Assessment
 Section 13, Township 7-North, Range 3-East, HB&M
 Lord-Ellis Summit USGS 7.5' USGS Quadrangle 9-Quad Search

Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	None	None	WL	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest; Woodland, chiefly of open, interrupted or marginal type; Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Potentially in the vicinity but unlikely associated with project area.
<i>Accipiter gentilis</i>	northern goshawk	None	None	SSC	North coast coniferous forest Subalpine coniferous forest Upper montane coniferous forest; Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites; Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Potentially in the vicinity but unlikely on project area.
<i>Haliaeetus leucocephalus</i>	bald eagle	Delisted	Endangered	FP	Lower montane coniferous forest Oldgrowth; Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water; Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	No.
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted	FP	Requires protected cliffs and ledges for cover; 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. Frequents bodies of water in open areas with cliffs and canyons nearby for cover and nesting.	No
<i>Riparia riparia</i>	bank swallow	None	Threatened		Riparian scrub Riparian woodland; Colonial nester; nests primarily in riparian and other lowland habitats west of the desert; Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No

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Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
<i>Icteria virens</i>	yellow-breasted chat	None	None	SSC	Occupy early successional riparian habitats with a well-developed shrub layer and an open canopy; Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers with taller trees such as alder and cottonwood for song perches; Plants that form dense thickets and tangles are frequently selected as nesting strata.	No.
<i>Pandion haliaetus</i>	osprey	None	None	WL	Riparian forest; Ocean shore, bays, freshwater lakes, and larger streams; Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	No.
<i>Poecile atricapillus</i>	black-capped chickadee	None	None	WL	Cover provided by trees and shrubs in montane riparian habitat; also by conifers adjacent to riparian habitat. In California, mostly restricted to montane riparian habitat with alder, willow, birch, and other deciduous riparian trees. Occasionally ventures into conifer stands near riparian areas.	Unlikely associated with project area.
<i>Phalacrocorax auritus</i>	double-crested cormorant	None	None	WL	Requires considerable size bodies of water; Feeds mainly on fish (Robertson 1974, Cogswell 1977); also on crustaceans and amphibians.	No.
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	Threatened	Threatened	-	This owl breeds and roosts in forests and wood-lands with large old trees and snags, high basal areas of trees and snags, dense canopies (≥70% canopy closure), multiple canopy layers, and downed woody debris (Verner et al. 1992a). Large, old trees are the key component; they provide nest sites and cover from inclement weather and add structure to the forest canopy and woody debris to the forest floor. These characteristics typify old-growth or late-seral-stage habitats.	Potential to occur in the vicinity of the project area but unlikely on project area.

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Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
<i>Contopus cooperi</i>	olive-sided flycatcher	None	None	SSC	Breeding habitat is primarily late-successional conifer forests with open canopies usually are at mid to high elevations (3018-6988 ft [920-2130 m]); mostly associated with edges, openings, and natural and human-created clearings in otherwise relatively dense forests, but they also occupy semiopen forests; in Douglas-fir forests in northwestern California, the species is detected more often at forest edges than in forest interiors.	No.
<i>Empidonax traillii</i>	willow flycatcher	None	Endangered	-	Makes short sallies for flying insects from exposed perches in willow thickets or from low perches in adjacent meadows; Dense willow thickets are required for nesting and roosting. Low, exposed branches are used for singing posts and hunting perches. Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.	No.
Fish						
<i>Acipenser medirostris</i>	green sturgeon	Threatened	None	SSC	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Thaleichthys pacificus</i>	eulachon	Threatened	None	-	Aquatic flowing waters; Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries.	No, Class I aquatic habitat not associated with project area.
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	SSC	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Lampetra richardsoni</i>	western brook lamprey	None	None	SSC	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus clarkii clarkii</i>	coast cutthroat trout	None	None	SSC	Aquatic flowing waters; Small coastal streams from the Eel River to the Oregon border.	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus kisutch pop. 2</i>	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	Aquatic flowing waters; Federal listing refers to populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California.	No, Class I aquatic habitat not associated with project area.

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Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
<i>Oncorhynchus kisutch</i> pop. 4	coho salmon - central California coast ESU	Endangered	Endangered	-	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus mykiss irideus</i> pop. 1	steelhead - Klamath Mountains Province DPS	None	None	SSC	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus mykiss irideus</i> pop. 16	steelhead - northern California DPS	Threatened	None	-	Aquatic flowing waters; Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus mykiss irideus</i> pop. 36	summer-run steelhead trout	None	Candidate Endangered	SSC	Aquatic flowing waters; No. Calif coastal streams south to Middle Fork Eel River. Within range of Klamath Mtns province DPS & No. Calif DPS.	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus tshawytscha</i> pop. 17	chinook salmon - California coastal ESU	Threatened	None	-	Aquatic flowing waters	No, Class I aquatic habitat not associated with project area.
<i>Oncorhynchus tshawytscha</i> pop. 30	chinook salmon - upper Klamath and Trinity Rivers ESU	None	Candidate Endangered	SSC	Aquatic flowing waters; Spring-run chinook in the Trinity River and the Klamath River upstream of the mouth of the Trinity River.	No, Class I aquatic habitat not associated with project area.
Insects						
<i>Bombus occidentalis</i>	western bumble bee	None	Candidate Endangered	-	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	No, unlikely on Project Area
Mammals						
<i>Arboreomys albipes</i>	white-footed vole	None	None	SSC	North coast coniferous forest Redwood Riparian forest; Mature coastal forests in Humboldt and Del Norte counties. Prefers areas near small, clear streams with dense alder and shrubs; Occupies the habitat from the ground surface to the canopy. Feeds in all layers and nests on the ground under logs or rock.	Unlikely associated with project area.

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Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	SSC	North coast coniferous forest Oldgrowth Redwood; North coast fog belt from Oregon border to Sonoma County. In Douglas-fir, redwood & montane hardwood-conifer forests; Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	Potential to occur in the vicinity of the project area but unlikely on project area.
<i>Pekania pennanti</i>	fisher - West Coast DPS	None	Threatened	SSC	North coast coniferous forest Oldgrowth Riparian forest; Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure; Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Potential to occur in the vicinity of the project area but unlikely on project area.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	SSC	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland; Throughout California in a wide variety of habitats. Most common in mesic sites; Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Potential to occur in the vicinity of the project area but unlikely on project area.

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Scientific Name	Common Name	FESA	CESA	CDFW Status	Habitats	Potential to Occur in Project Area
Reptiles						
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland; A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation; Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Unlikely but potential habitat developed in man-made pond site.
CDFW Status	Description					
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.					
SSC	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.					

Table 2. Special Status Plant Scoping List for Jones-Schultz Project; APN 521-123-005 Biological Assessment
 Section 13, Township 7-North, Range 3-East, HB&M
 Lord-Ellis Summit USGS 7.5' USGS Quadrangle 9-Quad Search; Project Elevation 3,420 ft - 3,520 ft

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Habitat	Elevation Low (ft)	Elevation High (ft)	Habitat Observed on Project Area
<i>Astragalus umbraticus</i>	Bald Mountain milk-vetch	None	None	2B.3	May-Aug	Cismontane woodland, Lower montane coniferous forest; sometimes roadside	490	4100	Marginal.
<i>Bensoniella oregona</i>	bensoniella	None	CR	1B.1	May-Jul	Bogs and fens, Lower montane coniferous forest (openings), Meadows and seeps; mesic	3000	4595	No.
<i>Carex arcta</i>	northern clustered sedge	None	None	2B.2	Jun-Sep	Bogs and fens, North Coast coniferous forest (mesic)	195	4595	No.
<i>Carex leptalea</i>	bristle-stalked sedge	None	None	2B.2	Mar-Jul	Bogs and Fens, Meadows and seeps, marshes and swamps	0	2296	No.
<i>Carex praticola</i>	northern meadow sedge	None	None	2B.2	May-Jul	Meadows and seeps (mesic)	0	10500	No.
<i>Cornus canadensis</i>	bunchberry	None	None	2B.2	May-Jul	Bogs and fens, Meadows and seeps, North Coast coniferous forest	195	6300	No.
<i>Epilobium oregonum</i>	Oregon fireweed	None	None	1B.2	Jun-Sep	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; mesic	1640	7350	No.
<i>Erythranthe trinitensis</i>	pink-margined monkeyflower	None	None	1B.3	Jun-Jul(Aug)	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; Often serpentinifite, often roadsides	1310	7495	No.
<i>Erythronium oregonum</i>	giant fawn-illy	None	None	2B.2	Mar-Jun(Jul)	Cismontane woodland, Meadows and seeps; sometimes serpentinifite, rocky, openings	325	3775	No.
<i>Erythronium revolutum</i>	coast fawn lily	None	None	2B.2	Mar-Jul(Aug)	Bogs and fens, Broadleaved upland forest, North Coast coniferous forest; Mesic, streambanks	0	5250	No.

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Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Habitat	Elevation Low (ft)	Elevation High (ft)	Habitat Observed on Project Area
<i>Eucephalus vialis</i>	wayside aster	None	None	1B.2	Jun-Sep	Lower montane coniferous forest, Upper montane coniferous forest; gravelly	2985	5070 No.	
<i>Gilia capitata</i>	Pacific gilia	None	None	1B.2	Apr-Aug	Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland	15	5465 No.	
<i>Glyceria grandis</i>	American manna grass	None	None	2B.3	Jun-Aug	Bogs and fens, Meadows and seeps, Marshes and swamps (streambanks and lake margins)	45	6495 No.	
<i>Ilamna latibracteata</i>	California globe mallow	None	None	1B.2	Jun-Aug	Chaparral (montane), Lower montane coniferous forest, North Coast coniferous forest (mesic), Riparian scrub (streambanks)	195	6560 No.	
<i>Microseris borealis</i>	northern microseris	None	None	2B.1	Jun-Sep	Bogs and fens, Lower montane coniferous forest, Meadows and seeps	3280	6560 No.	
<i>Montia howellii</i>	Howell's montia	None	None	2B.2	(Jan-Feb)/Mar-May	Meadows and seeps, North Coast coniferous forest, Vernal pools; vernaly mesic, sometimes roadsides	0	2740 No.	
<i>Oenothera wolffii</i>	Wolf's evening-primrose	None	None	1B.1	May-Oct	coastal bluff scrub, Coastal Dunes, Coastal prairie, Lower Montane Coniferous Forest	10	2624 No.	
<i>Packera bolanderi</i> var. <i>bolanderi</i>	seacoast ragwort	None	None	2B.2	(Jan-Apr)/May-Jul(Aug)	Coastal scrub, North Coast; Sometimes roadsides coniferous forest	95	2135 No.	
<i>Piperia candida</i>	white-flowered rein orchid	None	None	1B.2	(Mar)/May-Sep	Broadleaved upland forest, Lower montane coniferous forest, North Coast coniferous forest; sometimes serpentine	95	4300 No.	
<i>Ramalina thrausta</i>	angel's hair lichen	None	None	2B.1		North Coast coniferous forest; On dead twigs and other lichens	245	1410 No.	

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Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Habitat	Elevation Low (ft)	Elevation High (ft)	Habitat Observed on Project Area
<i>Rosa gymnocarpa</i> var. <i>serpentina</i>	Gasquet rose	None	None	1B.3	Apr-Jun(Aug)	Chaparral, Cismontane woodland; Serpentinite. Often roadsides, sometimes ridges, streambanks, and openings.	1310	5660	No.
<i>Sanguisorba officinalis</i>	great burnet	None	None	2B.2	Jul-Oct	Bogs and fens, Broadleafed upland forest, Meadows and seeps, Marshes and swamps, North Coast coniferous forest, Riparian forest; often serpentinite.	195	4595	No.
<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	None	None	1B.2	(Apr)May-Aug	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest; often roadcuts	45	2885	No.
<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	None	None	1B.2	Jun-Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	15	4395	Marginal.
<i>Thermopsis robusta</i>	robust false lupine	None	None	1B.2	May-Jul	Broadleafed upland forest, North Coast coniferous forest	490	4920	Marginal.
<i>Vaccinium scoparium</i>	little-leaved huckleberry	None	None	2B.2	Jun-Aug	Subalpine coniferous forest (rocky)	3395	7220	No.

