

Biological Report

Humboldt County APN 524-201-032

Willow Creek, California

Prepared for:

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I. Summary of Findings and Conclusions

The project at parcel APN 524-201-032, located approximately 2.5 miles south of Willow Creek, Humboldt County, California (Figure 1), includes cannabis cultivation on the parcel by the landowner. The landowner of this 1.47-acre parcel is applying for a cultivation permit under the Humboldt County Commercial Cannabis Land Use Ordinance (HCCCLUO) 2.0 as an existing cultivator for a total of 3,000 square feet of full sun outdoor cannabis cultivation.

The project area and surroundings were surveyed in order to describe the terrestrial and aquatic plants and animals occurring in and around cultivation area and watercourse, as well as determine whether habitat exists for special status species.

This Biological Report reviews the project at the above APN to determine to what extent wildlife species currently listed or proposed for listing (Table 1), including northern spotted owl (Table 2) would be affected (Table 3). No habitat for listed or sensitive wildlife species, collectively referred to as special status species, was identified in the vicinity of the project. No northern spotted owl (NSO) habitat exists on the parcel. The nearest NSO habitat appears to be in the vicinity of historic Activity Center (AC), approximately 1.2 miles northwest of the parcel. No special status wildlife species were detected during the biological survey (Table 4). It has been determined that the project and operations will have no impact on wildlife species in the vicinity of the project area.

Summary of Further Surveys Needed and Mitigation Recommendations

- Strict adherence to Riparian Setback Requirements for Humboldt County (2018) and State Water Board are required to maintain quality habitat for anadromous fish in the Trinity River watershed. All cultivation is well outside this setback.
- No further biological surveys or mitigation measures are needed.

II. Introduction, Background, and Project Understanding

The purpose of this Biological Report is to review the project (described below) in sufficient detail to determine existing or potential impacts to wildlife species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), or designated as sensitive by the California Department of Fish and Wildlife (CDFW); these species are hereinafter referred to as special status species (Table 1). Species with potential habitat present, or whose presence was not confirmed but potentially occur in the general area are addressed in Table 3.

The project parcel is located within the Trinity River watershed near the town of Willow Creek, in Humboldt County, California (Figure 1), and includes previous cannabis cultivation.

A biological assessment of the project area and the surrounding habitat was conducted to evaluate any potential habitat for special status plants and animals, or other environmental issues. In addition, these areas were surveyed to describe any terrestrial and aquatic plants or animals occurring in and around the project area.

Project Site

The project parcel is located nearly equidistant between the towns of Willow Creek and Salyer, just off State Highway 299. The site address is 201 Enchanted Springs Lane, Willow Creek, California, 95573. According to the Humboldt County Web GIS Portal, this parcel is 1.47 acres in size. The legal description is T06N, R05E, Section 9, HB&M, within the USGS 7.5' Salyer quadrangle (Figure 1).

State Highway 299 parallels the Trinity River from Willow Creek east to near Weaverville. The parcel is within a small rural residential area, with a linear layout along Enchanted Springs Lane (Figure 3). The project site (Photos 1-6) is within a fenced area along the road, adjacent to the garage where the entrance gate is located.

When viewing the parcel and general area in Google Earth imagery (1988-2019, Google Earth Pro 2019) it shows this residential area as already established, with a moderate increase in development over time.

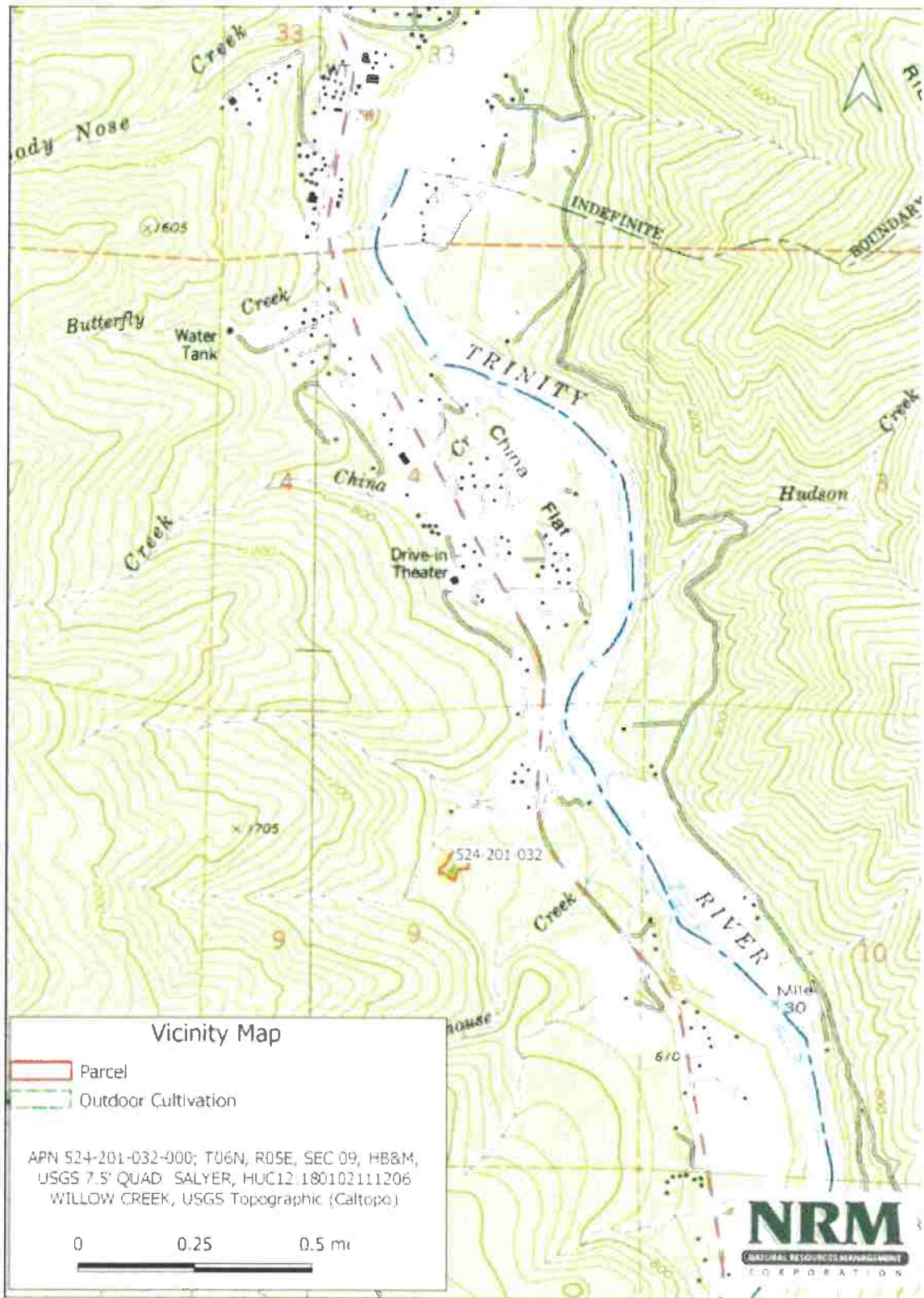


Figure 1. Vicinity map for APN 524-201-032

Topography and Hydrology

The project parcel is located within the Trinity River watershed, a Class I fish-bearing stream, approximately 1,350 feet (0.25 miles) east of the parcel. The Trinity River originates in the Trinity Alps, north of Weaverville, flowing west approximately 55 air miles to its confluence with the Klamath River at Weitchpec. The Klamath River flows approximately 40 air miles from Weitchpec to the Pacific Ocean near the town of Requa. From the South Fork Trinity River (near Salyer) to Willow Creek, the mainstem Trinity River runs south to north; the project parcel is within this section.

With elevations ranging from 760 to 800 feet, this parcel is essentially flat. West of the parcel is Six Rivers National Forest, with elevations rising to approximately 2,800 feet at Panther Ridge. State Highway 299 is approximately 750 feet east of the parcel, the Trinity River approximately 1,350 feet; beyond this is Six Rivers National Forest.

An unnamed Class III tributary to the Trinity River is located just outside the fenced cultivation area on the parcels' west boundary (Photos 7-9). This watercourse was not flowing during the time of the visit. The Humboldt County and State Water Board Orders' Stream Management Area (SMA) setback (buffer) requirement of 50 feet from Class III watercourse top of bank or riparian drip-line, whichever is greater, is easily met (Figures 2, 3).

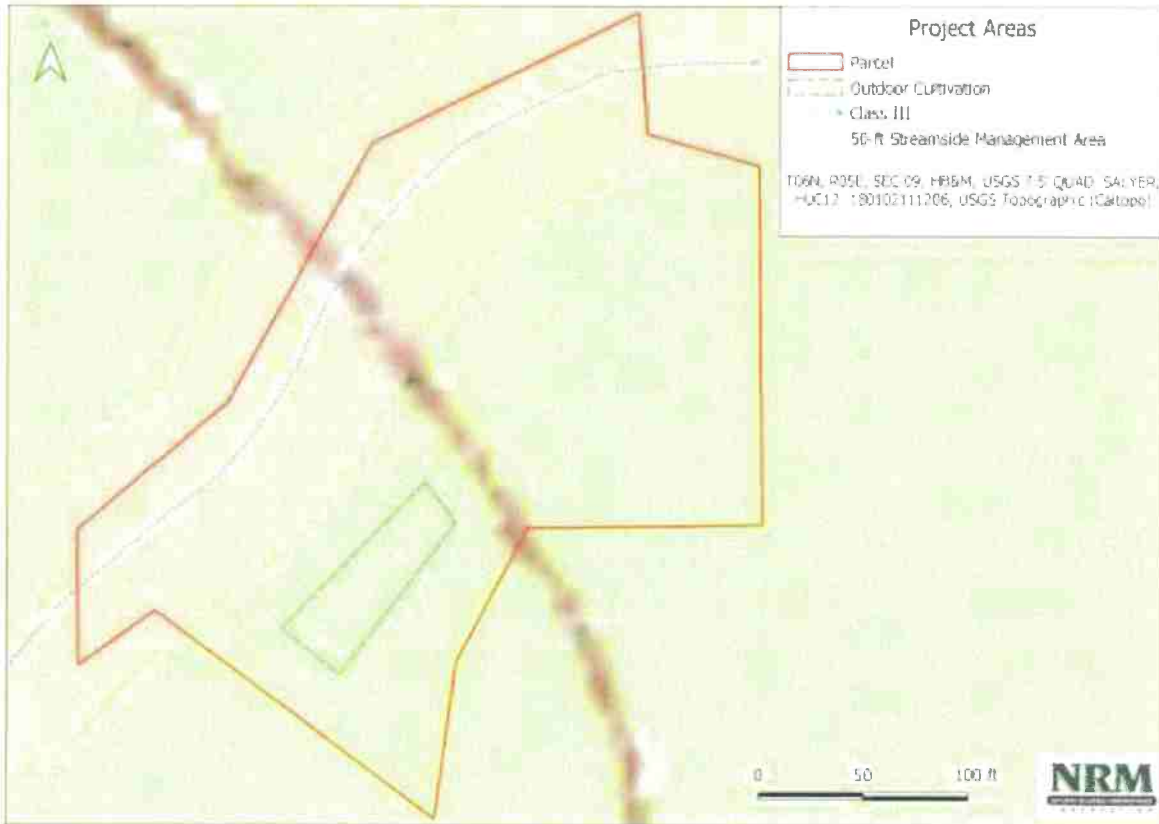


Figure 2. Site map for APN 524-201-032 showing Class III and 50-foot SMA (Topographic)



Figure 3. Site map for APN 524-201-032 (Satellite)

Biological Description

The project parcel is located within the Trinity River watershed, a designated wild and scenic river, that confluences with the Klamath River. The Trinity is an important river for anadromous fish species, including summer-run steelhead trout and chinook salmon, both State Candidate Endangered species.

Project Description

The project at parcel APN 524-201-032 includes cannabis cultivation on the parcel by the landowner. The landowner of this 1.47-acre parcel is applying for a cultivation permit under the Humboldt County Commercial Cannabis Land Use Ordinance (HCCCLUO) 2.0 as an existing cultivator for a total of 3,000 square feet of full sun outdoor cannabis cultivation.

Water for cannabis cultivation and domestic purposes will be provided by Willow Creek municipal water and electricity will be supplied by Pacific Gas and Electric (PG&E), and propane. The garage on the parcel will be used for drying cannabis grown in the adjacent cultivation area.

III. Methods

Pre-Field Review

Prior to initiating the field survey, a query of the CDFW California Natural Diversity Data Base (CNDDDB 2019) for wildlife species occurrences within a nine-quad topographical map area of the parcel was conducted. This provides a comprehensive target species list from which to determine habitat, presence, or sign of species, as well as any known locations for special status species in the general area (Table 1), including northern spotted owl (NSO) Activity Centers (ACs)

Table 1. CNDDDB list of special status wildlife species in the Salyer nine-quad area.

Common Name	Scientific Name	Federal / State Listing
northern spotted owl	<i>Strix occidentalis caurina</i>	Federal and State Threatened
bald eagle	<i>Haliaeetus leucocephalus</i>	State Endangered
northern goshawk	<i>Accipiter gentilis</i>	Species of Special Concern (SSC)
osprey	<i>Pandion haliaetus</i>	Watch List
Humboldt marten	<i>Martes caurina humboldtensis</i>	Candidate State Endangered
fisher- west coast DPS	<i>Pekania pennanti</i>	State Threatened
California wolverine	<i>Gulo gulo</i>	Federal Proposed Threatened, State Threatened
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC
Sonoma tree vole	<i>Arborimus pomo</i>	SSC
Pacific tailed frog	<i>Ascaphus truei</i>	SSC
northern red-legged frog	<i>Rana aurora</i>	SSC
foothill yellow-legged frog	<i>Rana boylei</i>	Candidate State Threatened
southern torrent salamander	<i>Rhyacotriton variegatus</i>	SSC

Common Name	Scientific Name	Federal / State Listing
Del Norte salamander	<i>Plethodon elongatus</i>	WL
western pond turtle	<i>Emys marmorata</i>	SSC
summer-run steelhead trout	<i>Oncorhynchus mykiss irideus pop.36</i>	State Candidate Endangered
chinook salmon	<i>O. tshawytscha pop. 30</i>	State Candidate Endangered

The survey protocol for NSO Activity Centers (USFWS Revised 2012) in non-redwood (interior) habitat (USFWS 2008) requires a 1.3-mile habitat analysis buffer for determining potential project effects. The nearest AC to the parcel is northwest approximately 1.2 miles (Figures 4, 5). Recent NSO data for the nearest ACs are displayed in Table 2.

Table 2. NSO Activity Center in the vicinity of APN 524-201-032

NSO Activity Center	CNDDDB Reported Positive Data	CNDDDB Reported Negative Data	Approximate Distance to Parcel (miles)
HUM0325	1993-1998, 2000-2006, 2009 Nesting pair 1988-1990, 1992, 1999, 2007, 2008, 2012 Non-nesting pair 2011 Single NSO	--	1.2
HUM0049	1992, 1997, 1998, 2000, 2002, 2004, 2005 Nesting pair 1991, 1993-1996, 1999, 2001, 2003 Non-nesting pair 1978, 1980-1982, 1985-1989 Single NSO	1990	1.3

A CNDDDB database search for all special status species within a 1-mile radius of the parcel (Figures 4, 5) reported a Pacific tailed frog (*Ascaphus truei*) from near the town of Willow Creek (2006, presumed extant); and foothill yellow-legged frog (*Rana boylei*) from Hudson Creek, southeast of Willow Creek and approximately 0.9 miles northeast of the parcel (2016; presumed extant). Non-listed species include a silver-haired bat (*Lasionycteris noctivagans*) north of the parcel.



Figure 4. NSO Activity Centers and CNDDB wildlife records in the vicinity of APN 524-201-032 (Satellite)

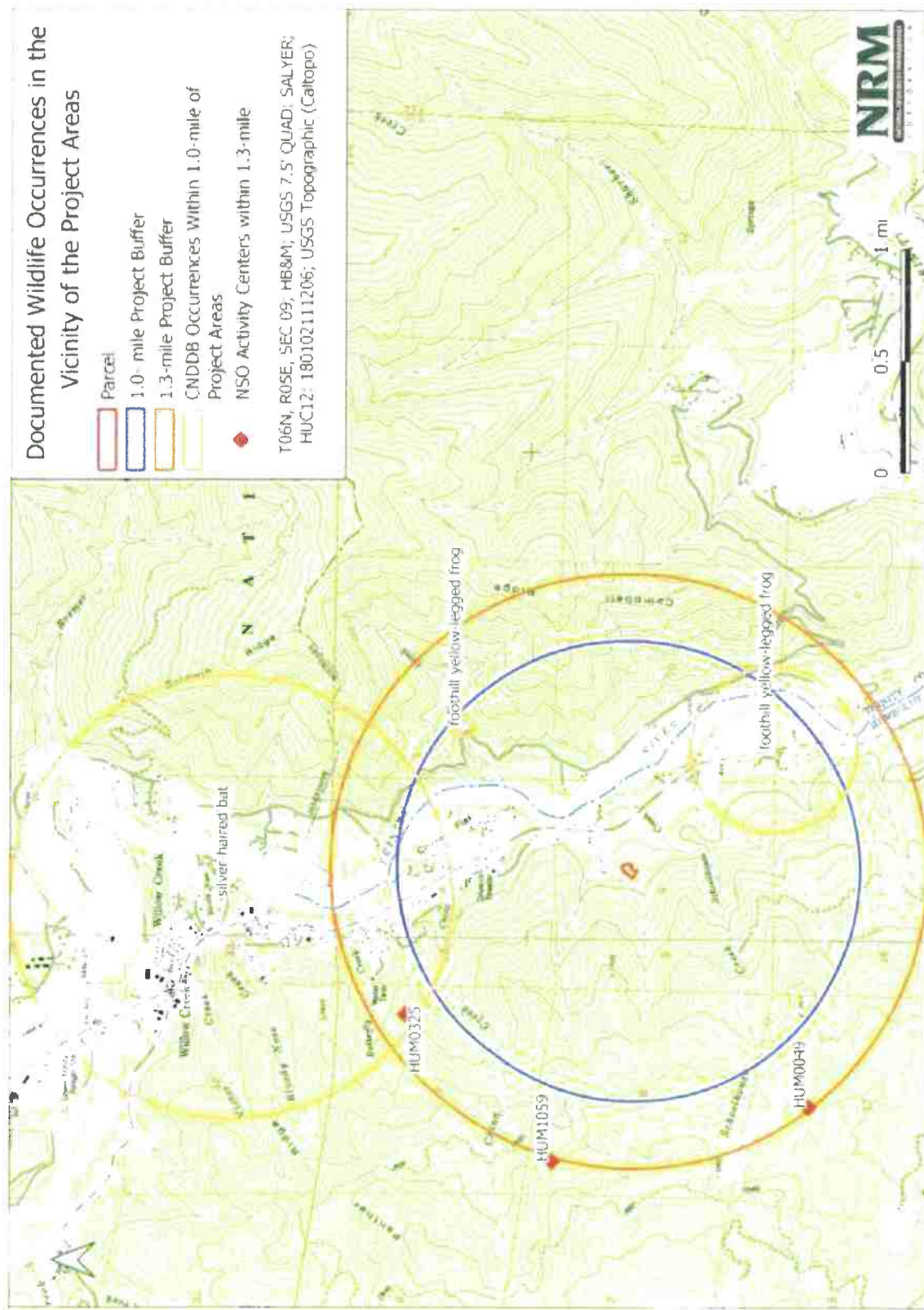


Figure 5. NSO Activity Centers and CNDDB records in the vicinity of APN 524-201-032 (Topographic)

Field Survey

On November 20th, 2019, NRM wildlife biologist Michelle McKenzie conducted a site visit to survey the existing cultivation area, watercourse and habitats where special status species (see Table 1) may occur. This survey was conducted for approximately 1 hour on a mild (60°F/16°C), sunny morning and included the entire parcel.

While walking the area all auidial detections of bird and mammal species were noted and the entire area traversed was scanned for wildlife sign (tracks and scat). In addition, trees were inspected for activity or sign of use by wildlife (cavities, nests, scrapes or accumulated vegetation); there were no cover objects to inspect for potential amphibian species except within the dry watercourse immediately adjacent to the cultivation area.

IV. Results and Discussion

Summary of Findings

For all species, direct impacts are those which are caused by the action (project) and occur at the same time and place. Indirect impacts are defined as those impacts caused by the proposed action and are later in time, but still reasonably certain to occur. Special status species and the potential for project impacts are presented in Table 3. Species are considered on a case-by-case basis as to the project's impact based on considerations such as home range, habitat, and sensitivity to disturbance. No habitat for listed or sensitive wildlife species was identified in the vicinity of the project areas, and no northern spotted owl (NSO) habitat exists on the parcel. The nearest NSO habitat appears to be in the vicinity of historic Activity Centers (AC), the nearest approximately 1.2 miles northwest of the parcel. No special status wildlife species were detected during the biological survey (Table 4). It has been determined that the project and operations will have no impact on wildlife species in the vicinity of the project area.

Survey Results and Discussion

The area surveyed included the entire parcel. There are no NSO ACs in the immediate vicinity; the nearest is approximately 1.2 miles northwest of the parcel (Figures 4, 5). The last year NSO were nesting at these ACs were in 2009 (HUM0325) and 2005 (HUM 0049). This parcel is rural residential in nature and located just off State Highway 299, a roadway connecting coastal US Highway 101 with Interstate Route 5, near Redding.

There is no habitat on the parcel to support any special status species. The Six Rivers National Forest land in the area surrounding the parcel likely support populations of fisher and potentially marten; northern goshawk, Townsend's big-eared bat, Sonoma tree vole, Pacific tailed frog, Del Norte salamander and southern torrent salamander. The remaining special status species are expected to occur in the Trinity River watershed, including bald eagle, osprey, foothill yellow-

legged frog, northern red-legged frog, western pond turtle, summer-run steelhead trout and chinook salmon.

The California wolverine has a single observational record for this area in the CNDDDB from 1966, in Hawkins Creek (Trinity County) at an elevation of 1,750 feet. Beyond this, the only recent sighting of wolverine in California was on private industrial timber lands in the Sierra Nevada mountains. This animal was photographed at a baited camera station in 2008, maintaining a 290-square mile area within Tahoe National Forest through 2017, the last year it was captured on camera. At this point in time, this wolverine is past life expectancy for wild populations.

Structures on the parcel that could provide roosting or breeding habitat for Townsend's big-eared bat were inspected. No sign of guano or use was detected at the buildings on site. Foraging in the vicinity of the Trinity River corridor and adjacent open areas is presumed.

Summer-run steelhead trout and chinook salmon have historic runs reported for the Trinity River (USFS 2004).

Special status species and the potential for impacts to species from the proposed projects, either directly or indirectly, are summarized in Table 3, below. Species are considered on a case-by-case basis as to the project's impacts based on considerations such as home range, habitat and sensitivity to disturbance.

Table 3. Special status species, suitable habitat in project site(s), and potential impacts

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
BIRDS				
northern spotted owl	FT, ST	Old-growth forests or mixed stands of old-growth and mature trees; occasionally in younger forests with patches of big trees	No	No impacts, due to no potential habitat in the project vicinity; nearest habitat likely associated with existing Activity Centers, over 1-mile northwest (HUM0325) and west (HUM1059) of parcels
bald eagle	SE, CDFS	Requires large bodies of water or free flowing rivers with abundant fish and adjacent perches; nests near water in large dominant trees	No	No impacts; this species expected to occur in the Trinity River corridor
northern goshawk	SSC, CDFS	Prefers middle and higher elevations with mature, dense conifer forests; usually nests near water on north facing slopes; riparian and open areas required	No	No impact; no mature conifer forest on parcel and no riparian vegetation associated with watercourse; this species expected to occur in the Trinity River corridor
osprey	WL, CDFS	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	No impacts; this species expected to occur in the Trinity River corridor

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
MAMMALS				
Humboldt marten	SE	Only in the coastal redwood zone from the Oregon border south to Sonoma County. Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure	No	No impact; the nearest potential optimal habitat is likely associated with coastal old growth redwood habitat and more inland habitats within mature Douglas-fir stands in the vicinity of permanent watercourses
fisher	FC, SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure	No	No impact; the nearest potential denning habitat is in mature forests of Six Rivers National Forest, particularly west of the parcel and east across the Trinity River and Highway 299
California wolverine	FP (T), ST	Locally, sightings range from Del Norte, Trinity, Siskiyou, Shasta counties between 1,600-4,800 feet in red fir, lodgepole, wet meadow, montane riparian; prefer areas with low human disturbance; use caves, hollow logs, ground cavities	No	No impact. This species is not expected in California; the most recent sighting in Sierra Nevada mountains of single male (2008-2017) likely deceased

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats; most common in mesic sites. Typically found in caves, mines, manmade structures.	No	No impact; possible roosting sites in forested areas if any large trees with cavities exist, otherwise foraging expected in Trinity River corridor; all buildings inspected, no sign of bat use. No trees will be removed and no cavities observed in trees adjacent to project area.
Sonoma tree vole	SSC	North coast fog belt from Oregon border to Sonoma County; in Douglas-fir, redwood and montane hardwood-conifer forests.	No	No impact; cultivation area within 300 feet of Douglas fir habitat, but best habitat potentially in drainages where microclimate may remain cooler and moist.
HERPETOFAUNA				
western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	No	No impact; there is no habitat for this species on the parcel; the nearest habitat is in Trinity River corridor where open sunny banks and basking substrates are located.

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
Pacific tailed frog	SSC	Inhabits cold, clear, permanent rocky streams in wet forests; restricted to perennial montane streams. Suitable habitat likely exists in most flowing waterways within Humboldt County; known from Prairie Creek SP to King Range NCA	No	No impact; there is no habitat for this species on the parcel; the nearest potential habitat likely to be in tributary watercourses to the Trinity River
foothill yellow-legged frog	SC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis	No	No impact; there is no habitat for this species, which requires permanent watercourse with rocky substrate; the nearest habitat likely in Trinity River and larger tributaries

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
northern red-legged frog	SSC	Humid forests, woodlands, grasslands, and stream sides in northwestern California, usually near dense riparian cover. Highly aquatic, little movement from streams or pond	No	No impact; this species expected in slower, backwater areas of Trinity River
Del Norte salamander	WL	Found in Del Norte, Siskiyou and Humboldt counties in open to dense, sapling to mature stages of riparian, conifer, Douglas-fir and redwood habitats; found in damp but not wet situations (under rotting logs, slabs of bark); rock rubble with fine soil seems preferred; does not require standing water	No	No impact; this species may occur in nearby, more permanent tributary watercourse corridors where rocky substrates may exist

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
southern torrent salamander	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats; Old growth forests. Cold, well-shaded, permanent streams seepages/springs, splash zone or on moss-covered rocks within trickling water. Known to occur within rivers and creeks from Prairie Creek SP to the Mattole River; suitable habitat is likely present within most flowing streams and seeps within Humboldt County	No	No impact; there is no habitat for this species in the project areas; the nearest potential habitat likely to be in headwater regions of tributary watercourses to Trinity River
FISH				
summer-run steelhead trout	SC (E)	Cool, swift, shallow water & clean loose gravel for spawning, and suitably large pools in which to spend the summer. Enter Mattole River between March and June	No	No impacts, particularly if stream setback requirements strictly adhered to

Common Name	Listing Status	General Habitat Description	Presence of Suitable Habitat w/in Site?	Comments
chinook salmon	SC (E)	Native anadromous fish in decline on west coast. Spawn in streams and rivers then move to ocean as adults; status applies to rivers and streams south of Klamath River to Russian River	No	No impacts, particularly if stream setback requirements strictly adhered to

State:

FP Fully protected (legally protected)

SC Candidate: (T)hreatened or (E)ndangered

SE Endangered (legally protected)

SSC Species of special concern (no formal protection other than CEQA consideration)

ST Threatened (legally protected)

Federal:

FE Endangered (legally protected)

FT Threatened (legally protected)

FP Proposed: (T)hreatened or (E)ndangered

Species, or their sign, observed during the survey are summarized below. There were no special status species detected. Due to the late season site visit no migratory birds were present.

Table 4. Species detected at APN 524-201-032 on November 20, 2019

Common Name	Scientific Name	Federal/ State Listing	Detection Method
red-tailed hawk	<i>Buteo jamaicensis</i>	None	visual
northern flicker	<i>Colaptes auratus</i>	None	auditory
acorn woodpecker	<i>Melanerpes formicivorus</i>	None	auditory
common raven	<i>Corvus corax</i>	None	visual
red-breasted nuthatch	<i>Sitta canadensis</i>	None	visual
American robin	<i>Turdus migratorius</i>	None	visual
Steller's jay	<i>Cyanocitta stelleri</i>	None	visual
scrub jay	<i>Aphelocoma californica</i>	None	visual
Oregon junco	<i>Junco hyemalis</i>	None	visual
song sparrow	<i>Melospiza melodia</i>	None	visual
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	None	visual

V. Management Recommendations

- Strict adherence to Riparian Setback Requirements for Humboldt County and State Water Board are required to maintain quality habitat for anadromous fish in the Trinity River watershed.

VI. References Cited

- California Natural Diversity Database (CNDDDB). 2019. Rare Find 5 [Internet]. California Department of Fish and Wildlife [Version 5.2.14]. Accessed November 2019.
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Appendix A: Photos taken November 20, 2019



Photo 1. Looking southeast from far corner of cultivation area towards the garage and house (left); Trinity River and Highway 299 in the distance



Photo 2. Looking northeast from far corner of cultivation area; Enchanted Springs Lane (right) along fence



Photo 3. Looking northeast at residential area from Enchanted Springs Lane



Photo 4. Looking towards fenced cultivation area from same location as Photo 3



Photo 5. Looking towards residential area from Enchanted Springs Lane (cultivation to left)



Photo 6. Looking east from driveway; Highway 299 and Trinity River in distance (and Osa)



Photo 7. Class III watercourse, looking upstream; gate and fence just visible to right of large Douglas-fir



Photo 8. Looking upstream (west) at the dry Class III watercourse greater than 50 feet from cultivation area



Photo 9. Looking downstream (east) at the dry Class III watercourse



Photo 10. View of gate to Class III watercourse (center of photo) from entry gate at garage



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November 15, 2019

Humboldt County Planning & Building
3015 H Street
Eureka, CA 95501

Re: Biological Report - APN 324-201-032

To Whom it May Concern:

We were recently notified that a biological survey will be required for the property located at APN 324-201-032. The landowner, M. Voulgaris, is currently under contract with our company for these services. As a qualified biologist at Natural Resources Management, I will be completing this survey on November 20, 2019; the associated report will be issued within 4 weeks of this date.

Sincerely,

Michelle McKenzie
Wildlife Biologist