Biological Survey Report

Larabee Valley, Humboldt County, California

APNs 208-281-026, 210-191-018

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NRM
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I. Summary of Findings and Conclusions

The project at parcel APNs 208-281-026 and 210-191-018, located in Larabee Valley in Humboldt County, California (Figure 1), involves an existing cannabis cultivation and the consolidation of cultivation square footage to avoid potential stream course buffers (Figure 2).

A biological survey was requested by Humboldt County Planning and Building Department, Cannabis Services Division due to the project site containing a mapped polygon for a rare or endangered animal species, the American peregrine falcon (*Falco peregrinus anatum*). This occurrence from 1995 had no detailed location data and was presumed extant.

This biological report reviewed the project at the above APNs to determine to what extent wildlife species currently listed or proposed for listing would be affected, including 16 species determined to potentially occur within the vicinity (Table 1). Listed or proposed plant species will be surveyed at a later date (Spring) due to seasonality issues.

No sensitive wildlife species were found within or near the project area. It has been determined that the project and operations are likely to have little to no effects on these wildlife species.

II. Introduction, Background, and Project Understanding

A biological survey was requested by Humboldt County Planning and Building Department, Cannabis Services Division due to the project site containing a mapped polygon for a rare or endangered animal species, the American peregrine falcon (*Falco peregrinus anatum*). The mapped polygon is referring to the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB 2018) records of wildlife species occurrences. This occurrence from 1995 had no detailed location data and was presumed extant.

The purpose of this biological report is to review the project in sufficient detail to address the above concern and to determine potential impacts to wildlife species currently listed or formally proposed for listing as endangered or threatened under the state and federal Endangered Species Act or designated as sensitive by the CDFW; these species are hereinafter referred to as special status species.

A biological survey of the project area and the surrounding habitat was conducted to evaluate any potential habitat for special status animal species, including 16 species determined to potentially occur within the vicinity (Table 1) or other environmental issues. In addition, surveys were conducted in order to describe any terrestrial and aquatic animals occurring in and around the project area.

Project Site

The project is located in Humboldt County in the Larabee Valley area, located approximately 65 miles east of US Highway 101, in the Van Duzen River watershed. The legal description of the site is within the USGS 7.5' quadrangle Larabee Valley T1N, R5E Sec 5 & 8 HB&M. The parcel is approximately 43 acres in size, with the northern border terminating at the Van Duzen river and the southern border adjacent to Highway 36.

Biological Description

The project site is dominated by Douglas-fir and black oak overstory interspersed with madrone and ash, with an understory of primarily poison oak and grasslands outside of the forested patches. The cultivation areas are more than 100 feet from the edge of the closest watercourse.

Project Description

There are currently three areas of cannabis cultivation on this parcel. A new cultivation area was established (Appendix, Picture 1) on an existing flat north of the main cultivation area (Appendix, Picture 2). This new site was surveyed for wetland vegetation and water course/buffer issues; a very small patch of juncus, a plant common to moist areas, was present but not of concern (Appendix, Picture 3). The other cultivation area to the east (Figure 2) is by an old residence and currently utilizes half of the garden area (Appendix, Picture 4) due to a seasonally wet area, which the current landowner believes held water due to the overflowing of tanks by the previous landowner.

A pond area (Figure 2) was created by the previous landowner by overflowing storage tanks to a downhill low area that was enhanced by excavation (Appendix, Pictures 5-7). Since the current landowners use these tanks for cultivation water (Appendix, Pictures 8) the pond depression no longer holds water during the dry season and never reaches the level of the overflow pipe/grate (Appendix, Picture 9). In addition, when the exit of the overflow pipe was inspected on the other side of the berm (Appendix, Picture 10) there was no sign of flow occurring there and no channelization.

Figure 1. Vicinity map for APNs 208-281-026, 210-191-018

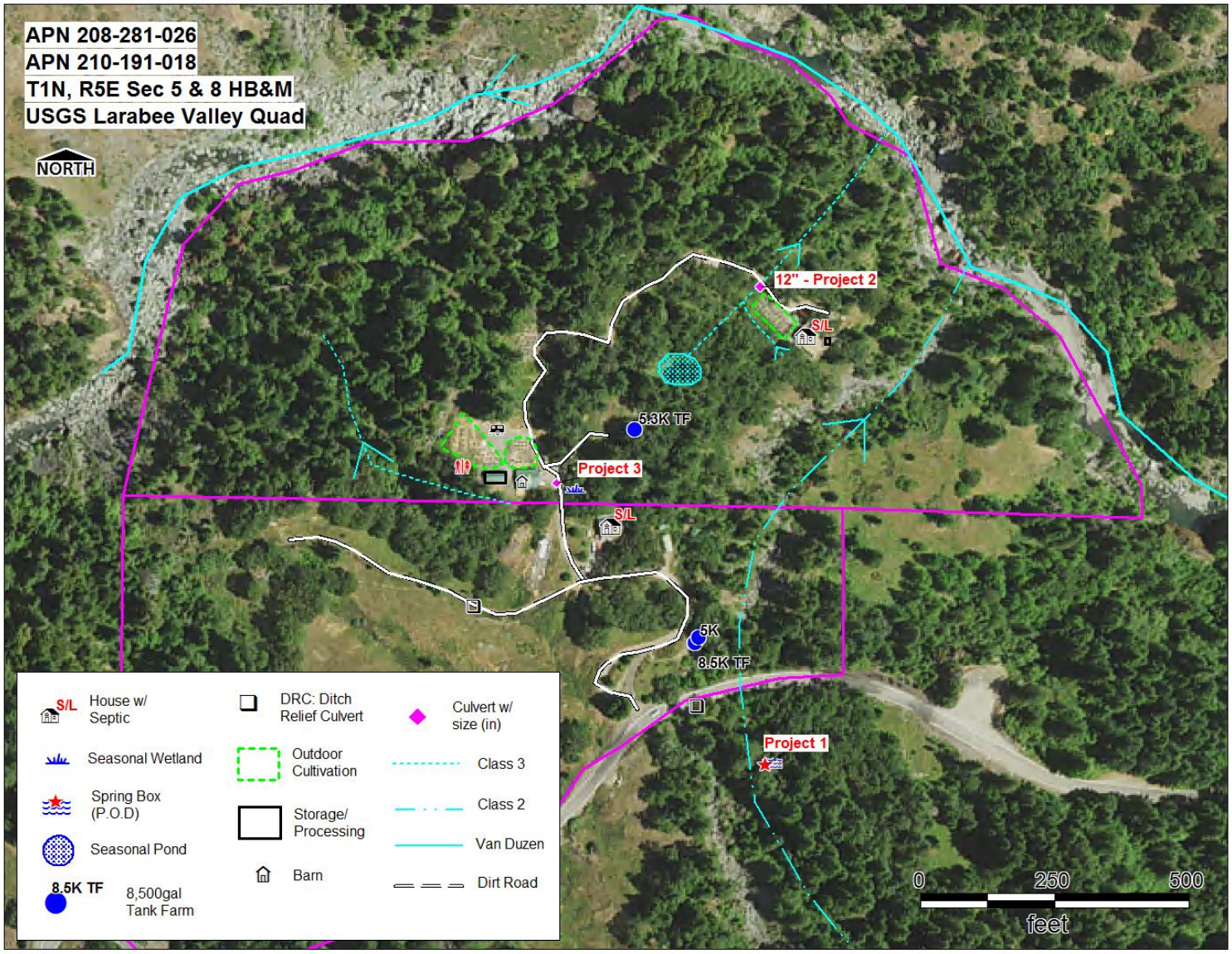

Figure 2. Parcel map for APNs 208-281-026 & 210-191-018

III. Methods

Pre-Field Review

Prior to the survey, the CDFW California Natural Diversity Data Base (CNDDB 2018) record of wildlife species occurrences for Humboldt County was queried for a nine-quad area around the project area, to determine which special status species may occur within the project area and to compile a target species list (Table 1).

Table 1. CNDDB list of potential special status wildlife species in the Larabee Valley nine-quad area

Common Name	Scientific Name	Federal / State Listing
Cooper's hawk	*Accipiter cooperii*	Watch List
northern goshawk	*Accipiter gentilis*	State Special Concern (SSC)
golden eagle	*Aquila chrysaetos*	Fully Protected
osprey	*Pandion haliaetus*	Watch List
American peregrine falcon	*Falco peregrinus anatum*	Delisted, Fully Protected
northern spotted owl	*Strix occidentalis caurina*	Federal and State Threatened
Sonoma tree vole	*Arborimus pomo*	SSC
Humboldt marten	*Martes caurina humboldtensis*	State Endangered
fisher- West Coast DPS	*Pekania pennanti*	Proposed & Candidate Threatened
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC
western pond turtle	*Emys marmota*	SSC
Pacific tailed frog	*Ascaphus truei*	SSC
northern red-legged frog	*Rana aurora*	SSC
foothill yellow-legged frog	*Rana boylii*	Candidate State Threatened
southern torrent salamander	*Rhyacotriton variegatus*	SSC
summer-run steelhead trout	*Oncorhynchus mykiss irideus pop.36*	SSC

Field Survey

On August 23rd, 2018 NRM wildlife biologist Michelle McKenzie conducted a site visit to survey the project and surrounding area for all terrestrial and aquatic species present. The survey was conducted for approximately 4 hours on a warm (78ºF/25ºC), breezy afternoon.

While walking the area all audial detections of bird and mammal species were noted and the entire area traversed (an approximate 100-foot buffer around the project area) was scanned for wildlife sign (tracks and scat). In addition, all trees were inspected for activity or sign of use by wildlife (cavities, nests, scrapes or accumulated vegetation), and all cover objects were inspected for potential amphibian species.

IV. Results and Discussion

Summary of Findings

For all species, direct effects are those which are caused by the action (project) and occur at the same time and place. Indirect effects are defined as those effects caused by the proposed action and are later in time, but still reasonably certain to occur. No listed wildlife species or special status species were detected during the survey. Special status and additional species of interest, and the potential for project impacts, are presented in Table 3, below. None of these species are expected to experience impacts from the proposed projects either directly or indirectly. All species detected during the survey are listed in Table 4. Despite the proximity of northern spotted owl AC HUM0155 (0.78 miles away) there is no NSO habitat on this parcel.

Survey Results

A CNDDB database search for all special status species within a 1-mile radius of the project revealed one polygon, covering the entire USGS 7.5' Larabee Valley quadrangle, represented the American peregrine falcon (*Falco peregrinus anatum*). This occurrence from 1995 had no detailed location data and was presumed extant. Additional occurrences in the vicinity include foothill yellow-legged frog (*Rana boylii*) from a location 3 miles due west of the parcels in 1965, and two fisher (*Pekania pennanti*) occurrences, both from over 5 miles to the southwest; all occurrences presumed extant. One northern spotted owl (NSO) activity center (AC) is located in the vicinity of this project: HUM0155 is 0.78 miles away.

Although the area surveyed did not reveal any optimal habitat for peregrine falcon, large rock outcroppings for nesting are relatively common in the general area. Furthermore, there does not appear to be sufficient extensive habitat in the immediate project area (100-foot buffer) to support foothill yellow-legged frog or fisher, although yellow-legged frogs are expected to occur in the Van Duzen river and fisher habitat likely exists in the vicinity.

There is not sufficient forested habitat to support listed/candidate species (Coopers hawk, northern goshawk, golden eagle, Humboldt marten, Townsend's big-eared bat), although foraging in the vicinity is presumed likely. Nor is there sufficient aquatic habitat to support listed/candidate species (Pacific tailed frog, southern torrent salamander).

Habitat likely exists for the Sonoma tree vole and use of the Van Duzen river corridor is expected by osprey, western pond turtle, northern red-legged frog and summer-run steelhead trout.

There is one northern spotted owl (NSO) activity centers (AC) within the 1.3-mile disturbance buffer required by the Humboldt County Commercial Cannabis Land Use Ordinance 2.0 (Figure 3). However, the previous landowner entered into the permitting process for cultivation prior to Ordinance 2.0, and there will be no removal of large trees or old growth habitat.

HUM0155 is located due east of the project site (Table 2), across State Highway 36 and the Van Duzen river corridor, suggesting any disturbance created by this project is minimized by highway and river noise.

Table 2. Northern spotted owl ACs in the vicinity of APNs 208-281-026 & 210-191-018

NSO Activity Center	Last Reported Positive Data	Last Reported Negative Data	Approximate Distance to Project (miles)
HUM0155	1988 nesting pair 2003 unknown individual	2004-2005	0.78

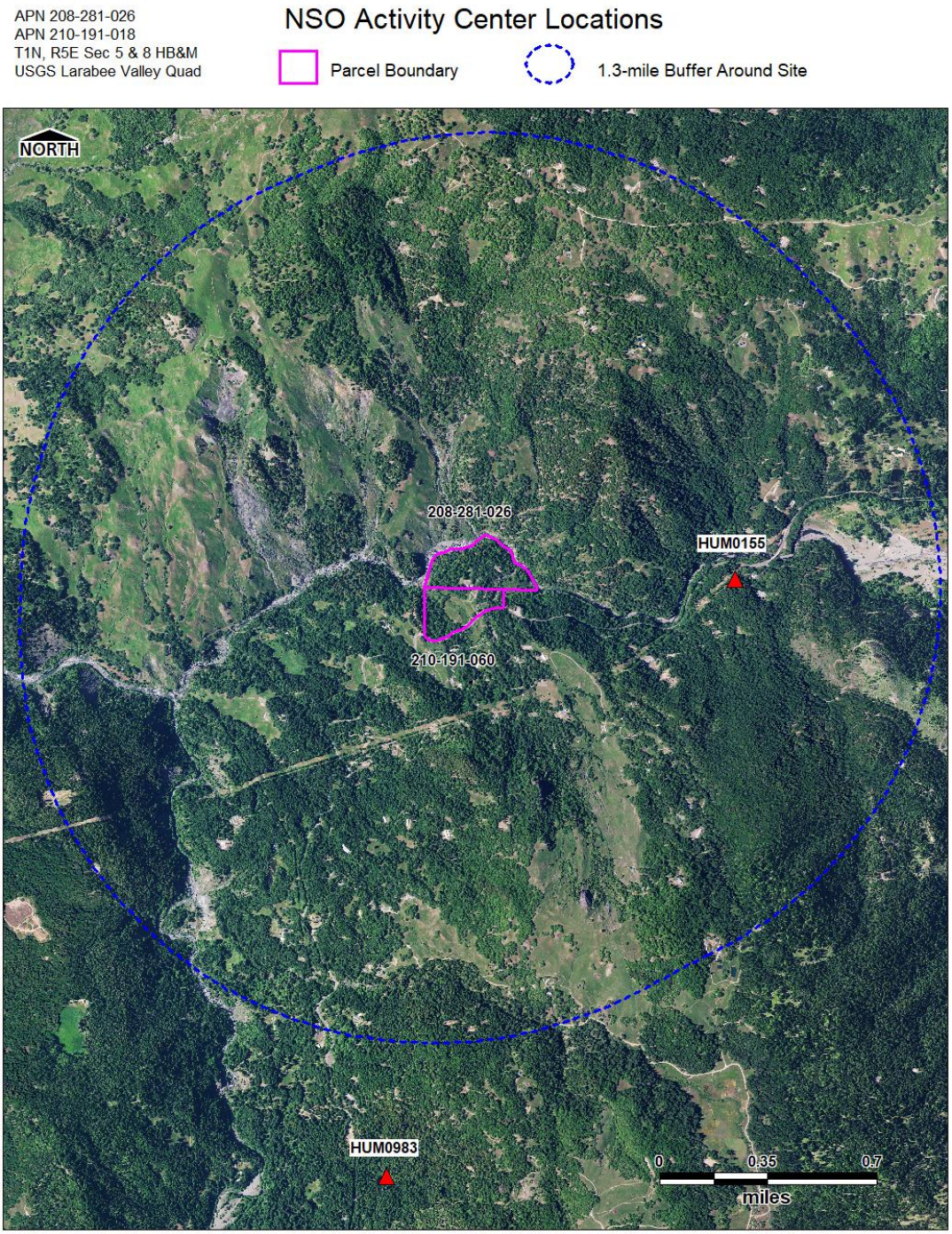

Figure 3. Northern spotted owl ACs in the vicinity of APNs 208-281-026 & 210-191-018

Special status and additional species of interest, and the potential for project impacts, are presented in Table 3, below. None of these species are expected to experience impacts from the proposed projects either directly or indirectly. All species detected onsite are recorded in Table 4.

Table 3. Special status and additional species of interest and potential project impacts

Common Name ***Scientific Name***	**Listing Status**	**General Habitat Description**	**Presence of Suitable Habitat w/in Site?**	**Potentially Affected by Project?**	**Comments**
BIRDS					
Cooper's hawk	WL	Woodland, chiefly of open, interrupted or marginal type	Yes	No	Some nesting/foraging habitat may be present, but unlikely to have any impacts
northern goshawk	SSC	Within, and in vicinity of, coniferous forest; uses old nests, and maintains alternate sites	No	No	Some nesting/foraging may be present, but unlikely; also project unlikely to have any impacts
golden eagle	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert	No	No	Parcel in vicinity of habitat but unlikely to have any impacts
osprey	WL	Ocean shore, bays, freshwater lakes, and larger streams	No	No	May use Van Duzen river
American peregrine falcon	FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures	No	No	Some large rock outcrops typically for nesting for this species in the vicinity
northern spotted owl	T	Old-growth forests or mixed stands of old-growth and mature trees; occasionally in younger forests with patches of big trees	No	No	Some habitat present but project impacts unlikely; closest known AC is approximately 4100 ft from project area

MAMMALS					
Sonoma tree vole	SSC	North coast fog belt from Oregon border to Sonoma County; in Douglas-fir, redwood & montane hardwood-conifer forests	Yes	No	Habitat is present but project impacts unlikely as no trees will be removed
Humboldt marten	SE	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County	No	No	Habitat may be present in vicinity, but project impacts unlikely; no large trees observed
fisher	CT	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure	No	No	Habitat may be present in vicinity, but project impacts unlikely; no large trees observed
Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats; most common in mesic sites	No	No	Typically found in caves, mines, manmade structures and tree cavities
HERPETOFAUNA					
western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation	No	No	Nesting habitat likely to be in Van Duzen river corridor; no impacts expected
Pacific tailed frog	SSC	Occurs in montane hardwood-conifer, redwood, Douglas-fir & ponderosa pine habitats	No	No	No creeks or Van Duzen steep or cool enough for this species
northern red-legged frog	SSC	Humid forests, woodlands, grasslands, and stream sides in northwestern California, usually near dense riparian cover	No	No	Habitat likely exists on Van Duzen; no project impacts expected
foothill yellow-legged frog	CT	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats	No	No	Rarely encountered far from rocky streams; may be present in Van Duzen river; no impacts expected
southern torrent salamander	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats; Old growth forests	No	No	Requires cold, well shaded permanent water; stays within splash zone; no habitat present and no project impacts expected

Federal:
FC Candidate
FE Endangered (legally protected)
FT Threatened (legally protected)

State:
FP Fully protected (legally protected)
SC Candidate
SE Endangered (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)
ST Threatened (legally protected)

Table 4. Species detected at APNs 208-281-026 and 210-191-018, August 23, 2018

Common Name	Scientific Name	Fed/ State Listing	Detection Method
mourning dove	*Zenaida macroura*	No	Visual
red-breasted nuthatch	*Sitta canadensis*	No	Auditory
ruby-crowned kinglet	*Regulus calendula*	No	Auditory
golden-crowned kinglet	*Regulus satrapa*	No	Auditory
rufous hummingbird	*Selasphorus rufus*	No	Visual
barn swallow	*Hirundo rustica*	No	Visual
white-crowned sparrow	*Zonotrichia leucophrys*	No	Auditory
Wilson's warbler	*Cardellina pusilla*	No	Visual
chestnut-backed chickadee	*Poecile rufescens*	No	Auditory
common raven	*Corvus corax*	No	Auditory
red-breasted sapsucker	*Sphyrapicus ruber*	No	
song sparrow	*Melospiza melodia*	No	Visual
northern flicker	*Colaptes auratus*	No	Visual
olive-sided flycatcher	*Contopus cooperi*	SSC	Visual & Auditory
western wood peewee	*Contopus sordidulus*	No	Visual
Oregon junco	*Junco hyemalis*	No	Visual
red-tailed hawk	*Buteo jamaicensis*	No	Visual
acorn woodpecker	*Melanerpes formicivorus*	No	Auditory
Steller's jay	*Cyanocitta stelleri*	No	Visual & Auditory
turkey vulture	*Cathartes aura*	No	Visual
western meadowlark	*Sturnella neglecta*	No	Auditory
band-tailed pigeon	*Patagioenas fasciata*	No	Visual
western tanager	*Piranga ludoviciana*	No	Visual & Auditory
spotted towhee	*Piplio maculatus*	No	Visual & Auditory
lesser goldfinch	*Spinus psaltria*	No	Visual & Auditory
American robin	*Turdus migratorius*	No	Visual
hairy woodpecker	*Leuconotopicus villosus*	No	Visual
song sparrow	*Melospiza melodia*	No	Auditory
raccoon	*Procyon lotor*	No	Scat
gray fox	*Urocyon cinereoargenteus*	No	Scat
coyote	*Canis latrans*	No	Scat
striped skunk	*Mephitis mephitis*	No	Scat
black-tailed deer	*Odocoileus hemionus columbianus*	No	Scat, Tracks
western fence lizard	*Sceloporus occidentalis*	No	Visual
northern alligator lizard	*Elgaria coerulea*	No	Visual

Cumulative Effects

No cumulative effects from the proposed project on regulated species is expected.

Management Recommendations

1. Any structure requiring lighting (mixed light greenhouses or nurseries) before sunrise or after sunset MUST be covered to avoid any effects on nocturnal wildlife. Further, all attempts to keep noise levels at a minimum during year-round operations will help maintain the quality of habitat for all wildlife species.

Appendix A. Site Photos Pictures taken August 23, 2018

Picture 1. New cultivation area

Picture 2. Main cultivation flat, looking west

Picture 3. Small patch of juncus to left of gate at new cultivation area

Picture 4. Cultivation area near old house; flat to right of plants not used due to seasonally wet area, which may have held water due to the overflowing of tanks by previous landowner

Picture 5. Irrigation tanks that previously flowed downhill (far side of tanks) to pond depression

Picture 6. Tanks (behind photographer) previously filled this pond depression; outflow is dark area to left of person

Picture 7. Irrigation tanks visible at top of picture; photographer standing in pond depression

Picture 8. Irrigation tanks (to right) that water main cultivation flat in upper center of picture

Picture 9. View of pond depression and overflow pipe/grate (dark square upper center left) near top of berm

Picture 10. White clipboard on top of berm, surveyor to right at overflow pipe exit, with no evidence of flow or channelization