



P.O. Box 733, Hydesville, CA 95547 . (707) 768-3743 . (707) 768-3747 fax

Biological Assessment

Steve Early Cannabis Cultivation Site Relocation APN: 217-251-003

Prepared by
Corrina Kamoroff
4/27/2023

For
Hohman and Associates Forestry Consultants

Signature:

A rectangular box containing a handwritten signature in black ink that reads "Corrina Kamoroff".

Date: 4/27/2023

CONTENTS

1. Summary.....	1
2. Introduction.....	1
2.1 Project Description.....	1
2.2 Setting.....	1
2.3 Zoning.....	1
2.4 Qualifications.....	2
2.5 Terms.....	2
3. Methods.....	3
3.1 Biological Assessment Area.....	3
3.2 Database Search.....	3
3.3 Field Surveys.....	3
4. Results.....	4
4.1 Summary of Findings and Conclusions.....	4
4.2 Habitats.....	4
4.2.1 Upland Communities.....	4
4.2.2 Wetland and Riparian Communities.....	4
The parcel contains numerous un-named watercourses and portions of Cooper creek which is a tributary to the Eel River.....	4
4.3 Special Status Animals.....	4
4.3.1 Special Status Animals Documented by CNDDDB in the Blocksburg 9-Quad Area.....	5
4.3.2 Potential Impacts to Special Status Animals.....	7
4.4 Wildlife Movement and Connectivity.....	15
5. Conclusions.....	15
5.1 Summary of Potential Impacts and Mitigations.....	15
1.2 Recommended Surveys and Mitigation Measures for Potentially Significant Impacts.	16
6. References.....	17
Project Location Map.....	19
CALVEG Vegetation Alliance Map of Surrounding Area.....	20
CNDDDB Special Status Taxa Search Map.....	21
NSO Database Map.....	22
Project Relocation Site Map.....	23
Habitat Photos.....	24

Attachment D. Rank Definitions.....	25
NSO Data.....	26

1. Summary

This Biological Assessment was prepared on behalf of Steve Early proposing the relocation of less than an acre of cannabis cultivation to an environmentally superior site on APN: 217-251-003. The current location of the existing cannabis cultivation is activity impacting sensitive riparian habitat. The relocation site (see attached map) is an open grassland that is surrounded by oak woodland. This document assesses habitats and potentially occurring special-status plants and animals. This document also identifies potential impacts of the proposed operations on biological resources. This assessment also recommends mitigation needed to reduce potential impacts to less-than-significant levels.

The property is designated as AE-B-5 (160) and TPZ and is located approximately 2.5 miles northwest of Blocksburg, California, and is accessed via private roads off of Alderpoint Road, which has the potential to support numerous special status animal species (details are provided in Section 4.3 Special Status Animals). A table summarizing all mitigation measures recommended to reduce biological impacts to less-than-significant levels can be found in Section 5.2.

2. Introduction

2.1 Project Description

Steve Early is proposing the relocation of less than 1 acre of outdoor cannabis cultivation to an environmentally superior site for relocation. The existing or historic cannabis cultivation is inadequately separated from water courses and riparian habitat. Utilization of the proposed relocation site shall be in compliance with terms and conditions set forth by the Humboldt County Planning Department. The biological resources were surveyed and assessed on April 24, 2023 by Biologist, Corrina Kamoroff.

2.2 Setting

The relocation site project is located in Sections 09, T2S, R5E, HB&M, Humboldt County from the Black Lassic 7.5' USGS Quad Map. The property is located approximately 2.5 miles northwest of Blocksburg, California, and is accessed via private roads off of Alderpoint Road. Vegetation on the property consists of grasslands, oak woodlands, and Douglas fir timberland. The property has a primarily south facing aspect with an elevation range approximately 2,200' to 3,200' above sea level. The project area contains un-named watercourses and portions of Cooper creek which is a tributary to the Eel River.

2.3 Zoning

The parcel is zoned for AE-B-5 (160) and TPZ.

2.4 Qualifications

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

2.5 Terms

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Methods

3.1 Biological Assessment Area

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

3.2 Database Search

A list of special-status animal species was downloaded from CNDDDB for the Blocksburg 9-quad area. Potential habitats on the parcel and within the Biological Assessment Area (BAA) for species occurring in the in the 9-quad areas were evaluated. The potential for the project to impact each species was evaluated based on the potential for the species to occur in the area of impact and sensitivity of the species to potential loss of habitat, disturbance, or other effects of operations. Surveys and mitigations needed are specified for species that could incur significant impacts. See attached maps.

3.3 Field Surveys

The site was evaluated for potential habitat value to protected, endangered, threatened, rare, and sensitive species by walking around the project area to observe species, habitat types, and quality. Habitat and potential impacts were evaluated during visits to the cultivation site on 4/24/2023. Table 5.2 provides a list of surveys and mitigation measures needed to reduce the potential impact of the project on biological resources to less than significant. See attached maps at the end of the report.

4. Results

4.1 Summary of Findings and Conclusions

No sensitive animal species were observed during the site visit. If sensitive plant species are observed appropriate protection measures will be put in place. The proposed project falls within the range of the Northern Spotted Owl (NSO). Potential habitat exists on the parcel and in the surrounding area for the NSO. One NSO Activity Center (HUM1140) has been documented approximately 0.5 miles of the proposed relocation site will not alter or remove any NSO habitat. NSO surveys have been conducted for a neighboring NTMP and no new NSO sites have been documented within 1.3 miles of the project location (see attached data at the end of the report). Mitigation measures have been proposed for each potentially significant biological impact of current and planned operations on the property. Relevant mitigation measures for the impacts discussed in this report are listed in parentheses (e.g. BIO-1, BIO-2, etc.), and these mitigation measures can be found in the table of Section 5.1.2 Mitigation for Potentially Significant Impacts.

4.2 Habitats

4.2.1 Upland Communities

The parcel is located on a south/southwest facing hillside with a mix of open grasslands, oak woodland and fir.

4.2.2 Wetland and Riparian Communities

The parcel contains numerous un-named watercourses and portions of Cooper creek which is a tributary to the Eel River.

4.3 Special Status Animals

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

4.3.1 Special Status Animals Documented by CNDDDB in the Blocksburg 9-Quad Area

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	GRank	SRank	Potential to occur On-Site
<i>Ascaphus truei</i>	Pacific tailed frog	None	None	SSC	G4	S3S4	Unlikely
<i>Rana aurora</i>	Northern red-legged frog	None	None	SSC	G4	S3	Unlikely
<i>Rana boylei pop. 1</i>	Foothill yellow-legged frog - north coast DPS	None	None	SSC	G3T4	S4	Unlikely
<i>Rhyacotriton variegatus</i>	southern torrent salamander	None	None	SSC	G3?	S2S3	Unlikely
<i>Accipiter cooperii</i>	Coopers hawk	None	None	WL	G5	S4	Yes
<i>Accipiter gentilis</i>	northern goshawk	None	None	SSC	G5	S3	Yes
<i>Aquila chrysaetos</i>	golden eagle	None	None	FP WL	G5	S3	Yes
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted	FP	G4T4	S3S4	Yes
<i>Icteria virens</i>	yellow-breasted chat	None	None	SSC	G5	S3	Unlikely
<i>Pandion haliaetus</i>	osprey	None	None	WL	G5	S4	Yes
<i>Setophaga petechia</i>	yellow warbler	None	None	SSC	G5	S3S4	Yes
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	Threatened	Threatened	-	G3G4T3	S2	Yes
<i>Empidonax traillii</i>	willow flycatcher	None	Endangered	-	G5	S3	Yes
<i>Empidonax traillii brewsteri</i>	little willow flycatcher	None	Endangered	-	G5T3T4	S3	Unlikely
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	SSC	G4	S3	No
<i>Oncorhynchus kisutch pop. 2</i>	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	G5T2Q	S2	No
<i>Oncorhynchus mykiss irideus pop. 48</i>	steelhead - northern California DPS summer-run	Threatened	Endangered	-	G5T2Q	S2	No
<i>Oncorhynchus mykiss irideus pop. 49</i>	steelhead - northern California DPS winter-run	Threatened	None	-	G5T3Q	S3	No
<i>Oncorhynchus tshawytscha pop. 17</i>	chinook salmon - California coastal ESU	Threatened	None	-	G5T2Q	S2	No
<i>Bombus caliginosus</i>	obscure bumble bee	None	None	-	G2G3	S1S2	Yes
<i>Bombus occidentalis</i>	western bumble bee	None	Candidate Endangered	-	G3	S1	Yes
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	SSC	G3	S3	Unlikely

<i>Pekania pennanti</i>	Fisher	None	None	SSC	G5	S2S3	Yes
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	SSC	G4	S2	Yes
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	G3G4	S3	Unlikely

4.3.2 Potential Impacts to Special Status Animals

1. Pacific Tailed Frog (*Ascaphus truei*)

Status: CDFW “Species of Special Concern”

Key Habitat: Found in riparian areas where there are clear, cold swift-flowing mountain streams; sometimes found near water in damp forests or in more open areas in cold, wet weather. Key habitat components within cold swift-flowing streams are plunge pools and rocky substrates where tadpoles cling to surfaces with large sucker like mouth while eggs are attached to downstream side of rocks.

Status within Plan Area and BAA: Habitat exists within BAA along the class I, II & III watercourses; however, no streams or riparian areas will be impacted by the proposed project.

Mitigations: Habitat for the Pacific Tailed frog will not be impacted by the proposed project. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

2. Northern red-legged Frog (*Rana aurora*)

Status: CDFW “Species of Special Concern”

Key Habitat: Found in riparian areas and permanent bodies of relatively quiet water such as ponds, pools along streams, reservoirs, springs, lakes and marshes.

Status within Plan Area and BAA: Habitat exists within BAA along the class I, II & III watercourses; however, no streams or riparian areas will be impacted by the proposed relocation site.

Mitigations: Habitat for the Northern red-legged frog will not be impacted by the proposed project. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

3. Foothill yellow-legged Frog (*Rana boylei*)

Status: CDFW “Species of Special Concern”

Key Habitat: Prefers watercourses with bedload materials composed primarily of sand and gravels while larger rocks are sought out for cover. Regardless of season this frog is rarely found far from permanent water. Tadpoles require water for at least three to four months while completing aquatic development.

Status within Plan Area and BAA: Habitat exists within BAA along the class I, II & III watercourses; however, no streams or riparian areas will be impacted by the proposed relocation site.

Mitigations: Habitat for the Foothill yellow-legged frog will not be impacted by the proposed project. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

4. Southern torrent salamander (*Rhyacotriton variegatus*)

Status: CDFW “Species of Special Concern”

Key Habitat: Found in coastal forests of northwestern California, relatively common in

preferred habitats of cold, well shaded permanent streams and spring seepages within redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer forests.

Status within Plan Area and BAA: Habitat exists within BAA along the class I, II & III watercourses; however, no streams or riparian areas will be impacted by the proposed relocation site.

Mitigations: Habitat for the Southern Torrent salamander will not be impacted by the proposed project. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

5. Cooper's hawk (*Accipiter cooperii*)

Special Status: CDFW Watch List; Protected under Migratory Bird Treaty Act

Family: Accipitridae

Habitat/Life-history Requirements: Cooper's hawks are common year-round residents in wooded areas of California, and they can be found in urban and suburban areas as well (Cornell Lab). The raptor commonly nests in riparian and lowland habitats throughout much of Humboldt County (Hunter et al. 2005). The medium-sized hawk builds nests made of piles of sticks over two feet wide in tall trees, typically 25-50 feet off the ground (Cornell Lab). Nesting trees include pines, oaks and Douglas firs (Cornell Lab). Dense stands are typically used for nesting and patchy open areas are commonly used for hunting (Zeiner et al. 1988).

Potential Impact: No known nest sites are located within 0.5 miles of the proposed relocation site. Additionally, no tree removal or habitat disturbance is proposed. The project is not expected to impact the species.

6. Northern goshawk (*Accipiter gentilis*)

Special Status: CDFW Species of Special Concern; Protected under Migratory Bird Treaty Act; NatureServe Ranks: G5, S3

Family: Accipitridae

Habitat/Life-history Requirements: The northern goshawk inhabits mature coniferous and mixed-coniferous forests that provide suitable nesting structures and adequate prey for this large hawk (Shuford and Gardali 2008). The northern goshawk builds nests that are 3-4 feet long (Cornell Lab) in stands of large trees with high canopy closure and an open understory (Shuford and Gardali 2008). Northern goshawks are known to breed in the Klamath and Inner North Coast Ranges (Hunter et al. 2005). They have also been spotted in the southwestern area of the county (Hunter et al. 2005). The northern goshawk is sensitive to disturbance, and aggressive toward intruders near their nest. They typically nest in wild forested areas, away from human-caused disturbances (Cornell Lab).

Potential Impact: The area could provide habitat for the northern goshawk. There are no nearby occurrences in CNDDDB and no tree removal is proposed as part of the project. The proposed relocation is not expected to impact the species.

7. **Golden eagle (*Aquila chrysaetos*)**

Special Status: CDFW Fully Protected and Watch List; Protected under Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act

Family: Accipitridae

Habitat/Life-history Requirements: The golden eagle is an uncommon migrant and year-round resident (Zeiner et al. 1988). The golden eagle typically utilizes open habitats away from human environments (Sibley 2003). Small mammals are the primary prey for the golden eagle (Sibley 2003). One of the largest raptors in North America, the golden eagle builds massive nests, about 6 feet across (Cornell Lab). Nests are typically located on cliffs, but may also be found on trees, man-made structures, or on the ground (Cornell Lab).

Potential Impact: There are no nearby occurrences in CNDDDB and no tree removal is proposed as part of the project. The proposed relocation is not expected to impact the species.

8. **American peregrine falcon (*Falco peregrinus anatum*)**

Special Status: Federally Delisted, State Delisted, CDFW Fully Protected; Protected under Migratory Bird Treaty Act

Family: Falconidae

Habitat/Life-history Requirements: The formerly federally endangered American peregrine falcon was delisted in 1999 due to recovery (USFWS ECOS). The American peregrine falcon is an uncommon year-round resident and migrant in California (Zeiner et al. 1988). Peregrine falcons typically use cliffs and ledges near bodies of water for cover and nesting areas, but they may also nest on buildings or bridges in the city (Sibley 2003, Cornell Lab). Peregrine falcons may breed in woodland, forest, or coastal habitat (Zeiner et al. 1988). Riparian and wetland areas are important habitat yearlong (Zeiner et al. 1988).

Potential Impact: Peregrine falcons may breed in a wide variety of habitats, and they have the potential to nest in the area on suitable ledges or other structures. No likely nesting cliffs or ledges were observed in aerial photos, but they have the potential to exist in the area. The nearest occurrence mapped in CNDDDB is in the nearby Miranda quad. The proposed relocation is not expected to impact the species.

9. **Yellow-breasted chat (*Icteria virens*)**

Special Status: CDFW Species of Special Concern; Protected under Migratory Bird Treaty Act

Family: Parulidae

Habitat/Life-history Requirements: The yellow-breasted chat is a CDFW Species of Special Concern. This songbird nests in dense riparian brush. The distribution of the yellow-breasted chat in Humboldt County largely follows the riparian habitat surrounding the major rivers, especially the Eel, Trinity, Klamath, and Mad Rivers (Hunter et al. 2005). The yellow-breasted chat is relatively numerous in Humboldt County, whereas much of California has seen a decline in population (Shuford and Gardali 2008). Protecting riparian areas, including shrub layers, is important for the conservation of this species.

Potential Impact: The yellow-breasted chat could occur in any dense riparian brush in the surrounding BAA, but is unlikely to breed in or around the project area. No nearby occurrences are mapped in CNDDDB. No impacts to the yellow-breasted chat are expected.

10. Osprey (*Pandion haliaetus*)

Special Status: CDFW Watch List; Protected under Migratory Bird Treaty Act

Family: Accipitridae

Habitat/Life-history Requirements: Ospreys primarily prey on fish and they require large fish-bearing waters for hunting (Zeiner et al. 1988). Ospreys are widespread along the Trinity, Klamath, Van Duzen, Eel, and South Fork Eel Rivers in Humboldt County (Harris 2005). Ospreys typically make large nests in tall snags or trees high off the ground in open forest habitats (Zeiner et al.).

Potential Impact/Mitigation: The area could provide habitat for the Osprey. There are no nearby occurrences in CNDDDB and no tree removal is proposed as part of the project. The proposed relocation is not expected to impact the species.

11. Yellow Warbler (*Setophaga petechial*)

Special Status: CDFW Species of Special Concern; Protected under Migratory Bird Treaty Act

Family: Parulidae

Habitat/Life-history Requirements: The yellow warbler primarily nests in deciduous riparian forest with a thick brush understory (Zeiner et al. 1988, Lowther et al. 1999). Yellow warblers are often associated with riparian willow thickets, but may also be found in thick brushy understories of coniferous forests (Zeiner et al. 1988), or hedgerows in human-influenced environments (Lowther et al. 1999). The yellow warbler primarily feeds on insects and other arthropods (Lowther et al. 1999). The songbird is threatened by removal of riparian habitat and brood parasitism by the brown-headed cowbird (Lowther et al. 1999).

Potential Impact: The yellow warbler could occur in dense understory or brush in the area. No native brush habitat is proposed, and as a result the relocation project is not expected to impact the species.

12. Northern spotted owl (*Strix occidentalis caurina*)

Special Status: Federally Threatened, California Threatened, CDFW Species of Special Concern, Protected under Migratory Bird Treaty Act

Family: Strigidae

Habitat/Life-history Requirements: Northern spotted owls typically nest or roost in multi-layered, mature coniferous forest with high canopy closure, large overstory trees, and broken-topped trees or other nesting platforms (USFWS 2012). Confirmed breeding areas are widespread throughout Humboldt County (Hunter et al. 2005). Northern spotted owls may use a broad range of habitats for foraging. Their favored prey, the dusky-footed woodrat (*Neotoma fuscipes*), typically inhabits the forest edge (Harris 2005).

Potential Impact: USFWS protocol surveys are needed for any activity that may modify nesting, roosting, or foraging habitats for northern spotted owls (USFWS 2012). Potential habitat has been mapped on the property and surrounding BAA. The nearest documented Activity Center (HUM 1140) is ~0.5 miles from the proposed relocation site. The project will not modify potential nesting/roosting habitat but ground disturbing activities may cause disturbance to the species. Neighboring harvest plan (1-12NTMP-001 HUM) have conducted NSO surveys in the area and no known Activity Centers has been discovered near the proposed location (see attached data). No additional NSO surveys are recommended at this time.

13. Willow flycatcher (*Empidonax traillii*)

Special Status: California Endangered, Protected under Migratory Bird Treaty Act

Family: Tyrannidae

Habitat/Life-history Requirements: The willow flycatcher is a rare to locally uncommon summer resident that breeds in the Cascades and the Sierra Nevada (Craig and Williams 1998). The little willow flycatcher breeds in wet meadows and montane riparian habitats at 2,000-8,000 feet elevation (Craig and Williams 1998). The riparian songbird requires dense willow thickets for nesting and roosting (Bombay et al. 2003, Zeiner et al. 1988). Destruction of riparian vegetation, modification of hydrology, and nest parasitism by brown headed cowbirds are the main threats to this species (Bombay et al. 2003).

Potential Impact: Riparian willow thickets do not occur on the parcel but may occur in the surrounding BAA. The nearest CNDDDB occurrence is over 5 miles away. The project is not expected to impact the willow flycatcher.

14. Little willow flycatcher (*Empidonax traillii brewsteri*)

Special Status: California Endangered, Protected under Migratory Bird Treaty Act

Family: Tyrannidae

Habitat/Life-history Requirements: The little willow flycatcher is a rare to locally uncommon summer resident that breeds in the Cascades and the Sierra Nevada (Craig and Williams 1998). The little willow flycatcher breeds in wet meadows and montane riparian habitats at 2,000-8,000 feet elevation (Craig and Williams 1998). The riparian songbird requires dense willow thickets for nesting and roosting (Bombay et al. 2003, Zeiner et al. 1988). Destruction of riparian vegetation, modification of hydrology, and nest parasitism by brown headed cowbirds are the main threats to this species (Bombay et al. 2003).

Potential Impact: Riparian willow thickets do not occur on the parcel but may occur in the surrounding BAA. The nearest CNDDDB occurrence is over 5 miles away, along the Eel River. The project is not expected to impact the little willow flycatcher.

15. Pacific lamprey (*Entosphenus tridentatus*)

Status: CDFW Species of Special Concern

Key Habitat: Pacific lamprey require cool, permanent streams with a variety of substrates and structural complexity (CalFish). Lampreys are anadromous and must have unimpeded access to the ocean (CalFish).

Status within Plan Area and BAA: Permanent streams in the surrounding area could provide habitat for the Pacific Lamprey. The project will avoid significant impacts to streams on the property and in the downstream watershed.

16. Coho Salmon Southern Oregon/Northern California ESU (*Oncorhynchus kisutch* pop. 2)

Status: State Threatened, BOF Sensitive Species and Federally Threatened.

The coho salmon supports valuable commercial and sport fisheries in the Pacific Northwest Region.

Key Habitat: Coho salmon utilize a variety of freshwater habitats and tolerances and requirements change with season and age. Each of the four distinct life stages, Adult, Spawning/embryo/alevin, Parr, and Smolt, require specific habitat quality.

Status within Plan Area: Permanent streams in the surrounding area could provide habitat. A Class I drainage that may provide habitat for the Coho Salmon is located within 150 feet of the project boundary.

Mitigations: The Eel River and its tributaries provide habitat for the anadromous salmonid. The project should avoid impacts to fish and other aquatic species by minimizing runoff that could affect the watershed. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species

17. Steelhead - northern California DPS summer-run (*Oncorhynchus mykiss irideus* pop. 48)

Special Status: Federally Threatened, State Endangered

Family: Salmonidae

Habitat/Life-history Requirements: Steelhead are anadromous rainbow trout that migrate to the ocean as juveniles and return to freshwater habitats to spawn. The Northern California Distinct Population Segment (DPS) ranges from Redwood Creek to just south of the Gualala River, and includes the Eel River watershed (Moyle et al. 2008). Salmonids, including steelhead, require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment. Steelhead may swim upstream in during the winter to spawn in stream segments that are not accessible to other salmonids during low flows (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.

Potential Impact: The Eel River and its tributaries provide habitat for the anadromous salmonid. The project should avoid impacts to fish and other aquatic species by minimizing runoff that could affect the watershed. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species

18. Steelhead - northern California DPS winter-run (*Oncorhynchus mykiss irideus* pop. 49)

Special Status: Federally Threatened

Family: Salmonidae

Habitat/Life-history Requirements: Steelhead are anadromous rainbow trout that migrate to the ocean as juveniles and return to freshwater habitats to spawn. The Northern California Distinct Population Segment (DPS) ranges from Redwood Creek to just south of the Gualala River, and includes the Eel River watershed (Moyle et al. 2008). Salmonids, including steelhead, require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment. Steelhead may swim upstream in during the winter to spawn in stream segments that are not accessible to other salmonids during low flows (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.

Potential Impact: The Eel River and its tributaries provide habitat for the anadromous salmonid. The project should avoid impacts to fish and other aquatic species by minimizing runoff that could affect the watershed. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species

19. Chinook salmon - California coastal ESU (*Oncorhynchus tshawytscha* pop. 17)

Special Status: Federally Threatened

Family: Salmonidae

Habitat/Life-history Requirements: The Federally Threatened Chinook salmon is the largest Pacific salmonid (Moyle et al. 2008). The California Coast Evolutionary Significant Unit (ESU) is composed of Chinook spawning in watersheds ranging from Redwood Creek south to the Russian River (Moyle et al. 2008). The anadromous salmonids return to these watersheds in the fall to spawn, after the first major rains (Moyle et al. 2008). Chinook, like other salmonids, require cool, clear perennial streams and rivers with structural complexity for cover and low suspended sediment (Moyle et al. 2008). Juvenile chinook may inhabit estuaries for an extended period (Moyle et al. 2008). Chinook are particularly sensitive to temperature and water quality, and require larger cobble and coarse gravel substrate for spawning compared to other salmonids (Moyle et al. 2008). Sedimentation is a major threat to salmonids in their early life stages.

Potential Impact: The Eel River and its tributaries provide habitat for the anadromous salmonid. The project should avoid impacts to fish and other aquatic species by minimizing runoff that could affect the watershed. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

20. Obscure bumble bee (*Bombus caliginosus*)

Special Status: CDFW Special Animals List

Family: Apidae

Habitat/Life-history Requirements: The obscure bumble bee occupies open grassy coastal prairies and Coast Range meadows (IUCN). This long-tongued species may pollinate flowers with elongated corollas, such as *Keckiella* spp. (IUCN). The obscure bumblebee does not fare well in agricultural or urban/suburban environments, where it is often outcompeted by more common bumblebees (NatureServe 2017). The obscure bumblebee has declined in the San Francisco Bay area, and may be threatened by habitat loss from development (NatureServe 2017).

Potential Impact: An occurrence mapped in CNDDDB overlaps the BAA. The property has the potential to support many native pollinators, and the project should take measures to minimize potential impacts.

21. Western bumble bee (*Bombus occidentalis*)

Special Status: State Candidate Endangered

Family: Apidae

Habitat/Life-history Requirements: The western bumble bee is a generalist short-tongued forager that may be found in open habitats such as grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows (IUCN). Like many bumble bees, the western bumble bee nests underground in abandoned rodent holes (IUCN). The western bumble bee is threatened by disease, habitat loss and degradation, and insecticides.

Potential Impact: An occurrence is mapped in CNDDDB 2.5 miles away. The property has the potential to support many native pollinators, and the project should take measures to minimize potential impacts.

22. Sonoma tree vole (*Arborimus pomo*)

Special Status: CDFW Species of Special Concern

Family: Muridae

Habitat/Life-history Requirements: The Sonoma tree vole occurs along the North Coast in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats (Zeiner et al. 1988). The small rodent specializes in feeding on Douglas-fir and grand fir needles, and typically constructs nests in Douglas-fir trees (Zeiner et al. 1988).

Potential Impact: The arboreal rodent could occur in the area, and the coniferous trees removed should be considered potential habitat. No removal of conifers will occur as part of the proposed project, and operations are not likely to affect the Sonoma tree vole. The project should incorporate measures to reduce disturbance from generator noise and lights for sensitive wildlife that may live in the surrounding coniferous forest and the Streamside Management Area.

23. Fisher (*Pekania pennanti*)

Status: CDFW Species of Special Concern

Key habitat: The fisher is a relative of the mink, otter and marten. The fisher inhabits old growth forests and use large areas of primarily coniferous forest with fairly dense canopies and large trees, snags and down logs. Fishers den in rotting logs, hollow trees, and rocky crevices of old growth forest. They are specialized animals that frequently travel along waterways and rest in or on live trees, snags and down logs with cavities. These characteristics are usually only found in large, undistributed tracts of old forest. Douglas-fir is the most common species used for resting in northern California. Frequently used resting structures in live trees include cavities, large branches and squirrel or raptor nest. Snags, logs and aggregations of large woody debris are also utilized. A general preference for a large tree is likely related to the more frequent presence of large lateral limbs, with areas of decay contributing to cavity formation and presence of other structural elements.

Status within the Plan Area and the BAA: The project site is within the general range of the known habitat. The present designated habitat range encompasses most of northern California, parts of Oregon and Nevada.

Mitigations: The relocation site and in particular, the SMA outside of the project area was evaluated during a site visit for any signs of past & present roosting or denning. The project proposes operations outside of the SMA. The proposed project is not expected to impact the species.

24. Townsends big-eared bat (*Corynorhinus townsendii*)

Status: CDFW Species of Special Concern

Key Habitat: the Townsend's big-eared bat is found throughout most of California, from desert habitats to the coastal redwood forests, and in oak woodlands. Their distribution is patchy, and is strongly correlated with the availability of caves, with populations occurring in areas dominated by cavity forming rock, and thus historic mining districts. They prefer open surfaces of caves and undisturbed spaces in buildings, bridges, tunnels, and possibly basal hollows of large trees.

Status within Plan Area and BAA: The project site is located within the general range of the known habitat. The present designated habitat range encompasses most of northern

California, parts of Oregon and Nevada. There are no known mine shafts nor maternity roosts in basal hollows of old growth trees within the project boundary.

Mitigations: Project operations will not significantly reduce habitat with important structural elements for this species on the ownership or watershed levels.

25. Western Pond Turtle (*Clemmys marmorata*)

Status: CDFW Species of Special Concern

Key Habitat: This species ranges from the Oregon border south to Kern County. Specific habitat includes areas of permanent water such as lakes, ponds, marshes, rivers, sloughs, and drainage ditches.

Status within Plan Area and BAA: Within the BAA there are watercourses and ponds that could provide habitat. No turtles have been observed in the watercourses near the project.

Mitigations: Habitat for the Western Pond Turtle will not be impacted by the proposed project. Relocating the cannabis cultivation sites to the proposed relocation site (see attached map) as well as the restoration of retired existing cannabis cultivation sites will improve potential habitat for the species.

4.4 Wildlife Movement and Connectivity

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

5. Conclusions

5.1 Summary of Potential Impacts and Mitigations

Restoration is needed to mitigate for the reduction and degradation of riparian habitat of existing cultivation sites. The proposed relocation site is located on an open meadow surrounded by oak woodland habitat. No trees or shrubs will be removed as part of the proposed site relocation. Potential Northern Spotted Owl habitat has been mapped on the property and surrounding BAA. The nearest documented Activity Center (HUM 1140) is ~0.5 miles from the proposed relocation site. The project will not modify potential nesting/roosting habitat but ground disturbing activities may cause disturbance to the species. Neighboring harvest plan (1-12NTMP-001 HUM) have conducted NSO surveys in the area and no known Activity Centers have been discovered near the proposed location (see attached data). No additional NSO surveys are recommended at this time. Additional measures have been recommended to reduce potential impacts to sensitive species and wildlife movement to less-than-significant levels. If special status species are detected, appropriate protective buffers or other mitigation measures will be established in consultation with CDFW. All additional mitigation measures recommended to reduce impacts to less-than-significant levels are listed in the table below.

5.2 Recommended Surveys and Mitigation Measures for Potentially Significant Impacts

Name	Impact	Mitigation Description
BIO-1	Potential disturbance of special status plants	A floristic Assessment was conducted by Hohman and Associates Botanist, Caitlyn Allchin on April 24, 2023. See attached Botanical Report.
BIO-2	Disturbance to wildlife from noise pollution or light pollution	<p>The applicant will follow guidelines for reducing noise pollution, which may impact sensitive species including bats, NSO, and other birds. Generator use will follow Humboldt County Performance Standards for Generator Noise. Additionally, the following measures are recommended:</p> <ul style="list-style-type: none"> - The generator should be contained in an insulated structure to muffle noise, and it should be kept away from SMAs. - The measured generator noise at the forest edge should not exceed ambient levels (<50dB or equivalent to levels at the property edge without the generator). - Temporary noise disturbances (such as running power tools) should occur during daylight hours to minimize disturbance to foraging bats or NSO. - Noise levels from the project should not exceed 75dB at the forest edge during the bird breeding season (Feb. 1-Aug 31) - The project should be connected to the grid and/or have solar energy installed as the main energy source by 2023.
BIO-3	Potential impacts of pesticides on pollinators	Pesticides that may be used for marijuana cultivation are limited to low-risk exempt substances and those that are broadly labeled by the Department of Pesticide Regulation. The potential impact of insecticide use on pollinators shall be reduced by not spraying in the presence of pollinators and not allowing drift to flowering plants in the surrounding area.
BIO-4	Potential wildlife entanglement in netting and fencing	No plastic bird/deer netting at should be used in cultivation sites.

6. References

- Bombay, H.L., Benson, T.M., Valentine, B.E. and Stefani, R.A., 2003. A willow flycatcher survey protocol for California. U.S. Forest Service, Pacific Southwest Region, Vallejo, California.
- Bourque, R. 2008. Spatial ecology of an inland population of the foothill yellow-legged frog (*Rana boylei*) in Tehama County, California. Arcata, CA: Humboldt State University. 93 p. M.S. thesis.
- CABI, 2019. *Rana catesbeiana* (American bullfrog). In: Invasive Species Compendium. Wallingford, UK: CAB International. <www.cabi.org/isc>.
- CalFish: A California Cooperative Anadromous Fish and Habitat Data Program. Species Pages. <http://www.calfish.org/FisheriesManagement/SpeciesPages/PacificLamprey.aspx>.
- California Department of Fish and Wildlife, Natural Diversity Database, BIOS. 2023. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, CA.
- California Department of Fish and Wildlife (CDFW), California Natural Diversity Database, Special Animals List. 2023. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, CA. <<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>>.
- Cook, D. G. 2012. *Rana boylei* (Foothill yellow-legged frog). Upland Movement. *Herpetological Review* 43(2): 325.
- Cornell Lab of Ornithology, "*All About Birds: Bird Guide.*" <<https://www.allaboutbirds.org/guide/search.aspx>>.
- Craig, D. and P. L. Williams. 1998. Willow Flycatcher (*Empidonax traillii*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. <http://www.prbo.org/calpif/htmldocs/riparian_v-2.html>.
- Harris, S.W. 2005. Northwestern California birds. 3rd Ed. Humboldt State Univ., Arcata, CA.
- Humboldt County Code Section 314-61, Streamside Management Areas and Wetlands Ordinance <<https://humboldt.county.codes/Code/314-61>>.
- Hunter, J.E., Fix, D., Schmidt, G.A., and Power, J.C. 2005. Atlas of the breeding birds of Humboldt County, California. Redwood Region Audubon Society.
- Moyle, P.B., J.A. Israel, and S.E. Purdy. 2008. Salmon, Steelhead, and Trout in California: Status of an Emblematic Fauna. U.C. Davis Center for Watershed Sciences.
- Nafis, G. 2000-2017. California Herps - A Guide to the Amphibians and Reptiles of California. <<http://www.californiaherps.com/>>
- NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <<http://explorer.natureserve.org>>.
- Rodewald, P. (Editor). 2015. The Birds of North America: <https://birdsna.org>. Cornell Laboratory of Ornithology, Ithaca, NY.

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

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

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

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

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

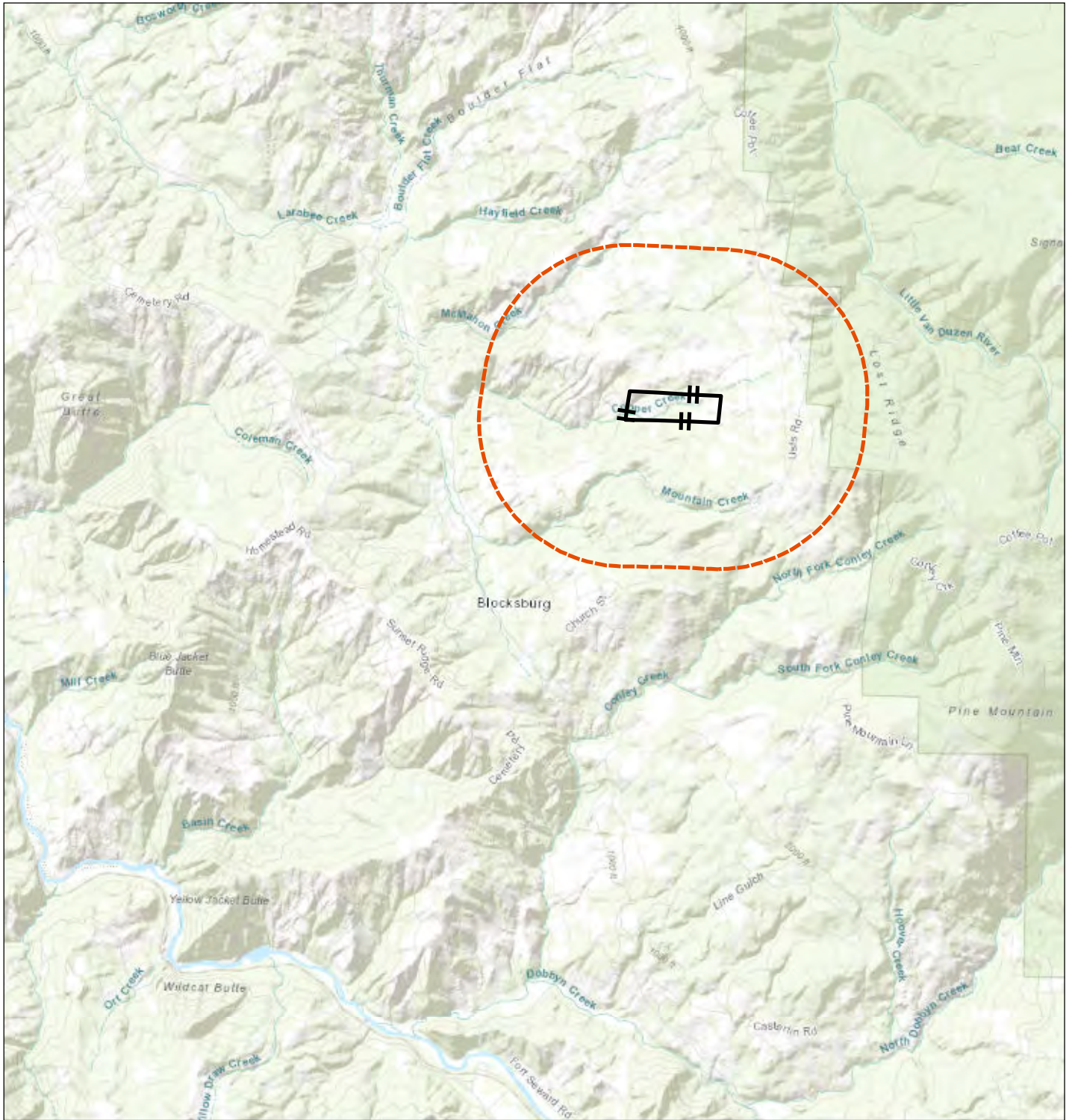
U.S. Fish and Wildlife Service (USFWS). 2014. Draft Species Report: Fisher (*Pekania pennanti*), West Coast Population. <https://www.fws.gov/yreka/20140911_WCF SR_finaldraft.pdf>.

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

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

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



Project Location Map

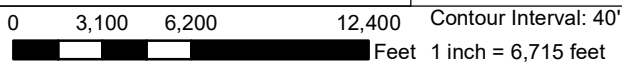


Steve Early

APN: 217-251-003

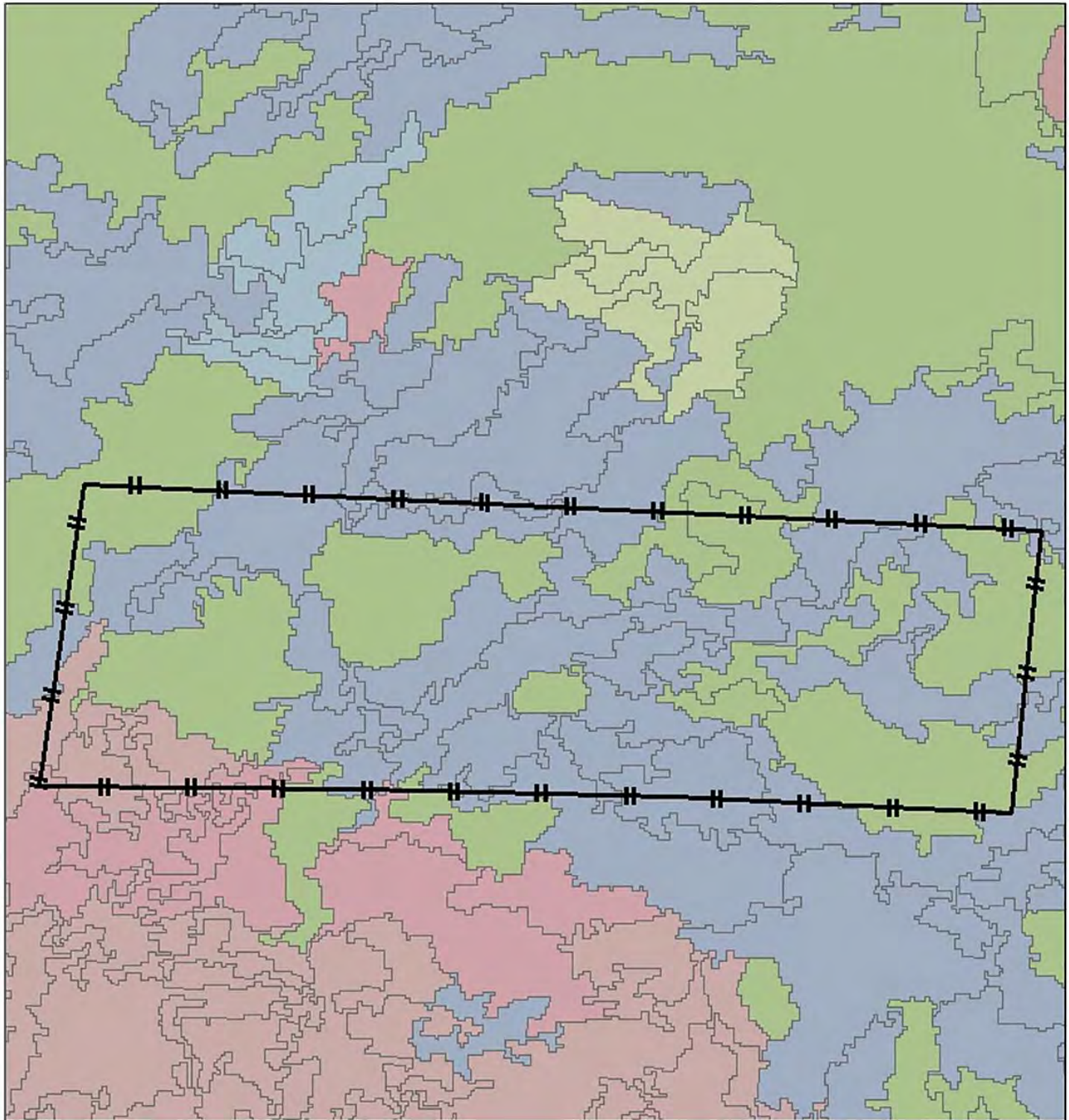
*Section 9; T2S; R5E;
Located on the Blocksburg 7.5' USGS
Quadrangle*

-  Parcel Boundary
-  1.3 mi Buffer



*Hohman And Associates Forestry Consultants
Date: 4/26/2023*

CALVEG Vegetation Alliance Map of Surrounding Area



Steve Early

APN: 217-251-003

*Section 9; T2S; R5E;
Located on the Blacksburg 7.5' USGS
Quadrangle*



Parcel Boundary



Annual Grasses and Forbs



Black Oak



California Bay



Intermittent Lake or Pond

Oregon White Oak

Pacific Douglas-Fir

Tanoak (Madrone)



0 295 590 1,180

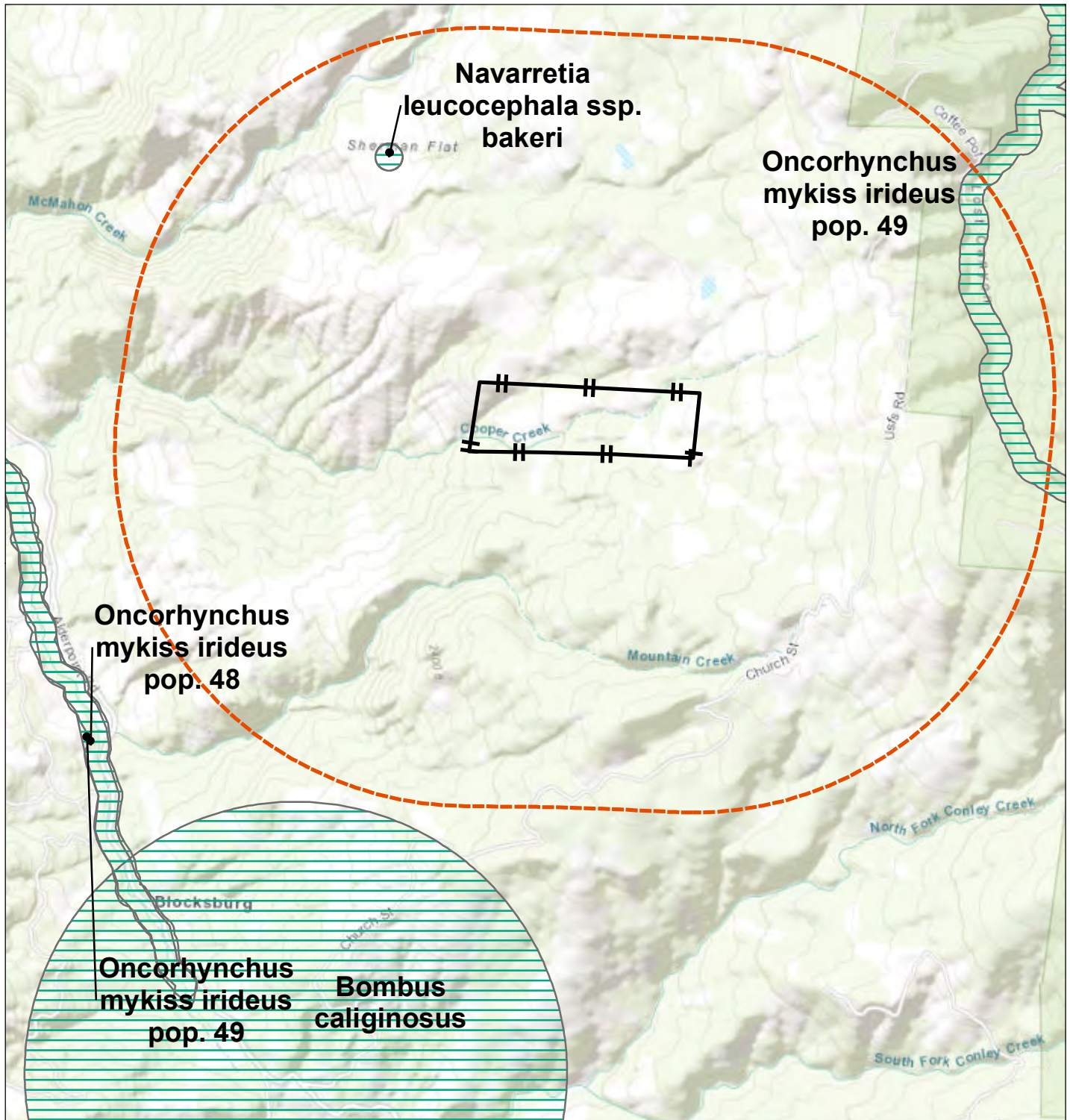
Contour Interval: 40'

Hohm an And Associates Forestry Consultants

Feet 1 inch = 634 feet

Date: 4/27/2023




CNDDDB Special Status Taxa Search Map

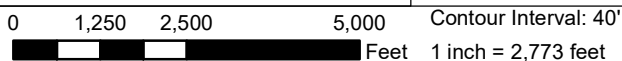


Steve Early

APN: 217-251-003

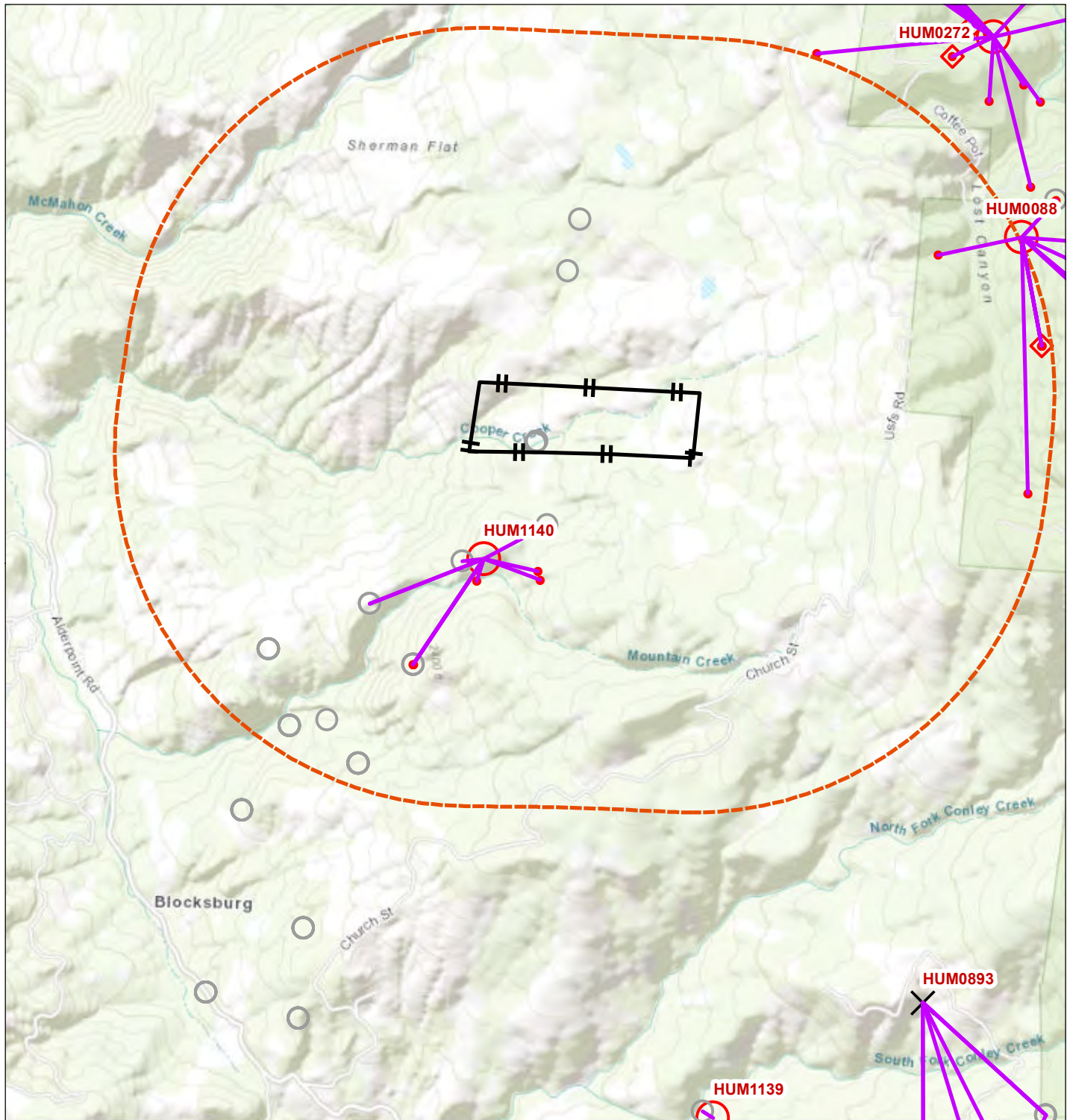
Section 9; T2S; R5E;
Located on the Blocksburg 7.5' USGS
Quadrangle

-  CNDDDB
-  Parcel Boundary
-  1.3 mi Buffer



Hohman And Associates Forestry Consultants
Date: 4/26/2023

NSO Database Map



<p>Steve Early APN: 217-251-003</p> <p><i>Section 9; T2S; R5E; Located on the Blocksburg 7.5' USGS Quadrangle</i></p>	<ul style="list-style-type: none"> — NSO Spider Diagram Parcel Boundary 1.3 mi Buffer Pair • Other Positive Observation ○ Negative Observation 	<ul style="list-style-type: none"> Activity Center Not Valid Activity Center
<p>0 1,250 2,500 5,000 Feet</p>	<p>Contour Interval: 40' 1 inch = 2,773 feet</p>	<p><i>Hohman And Associates Forestry Consultants</i> Date: 4/26/2023</p>



Project Relocation Site Map

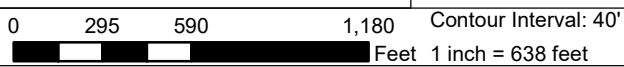


Steve Early

APN: 217-251-003

*Section 9; T2S; R5E;
Located on the Blocksburg 7.5' USGS
Quadrangle*

-  Parcel Boundary
-  Proposed Relocation Site



Contour Interval: 40'

Hohman And Associates Forestry Consultants
Date: 4/27/2023

Habitat Photos



Photo 1. Proposed Relocation Site (facing southwest) for cannabis cultivation on APN: 217-251-003. Photo: 4/24/2023



Photo 2. Proposed Relocation Site (facing northeast) for cannabis cultivation on APN: 217-251-003. Photo: 4/24/2023

Rank Definitions

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

- G1** **Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2** **Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
- G3** **Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
- G4** **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5** **Secure** – Common; widespread and abundant.
- G#G#** **Range Rank** – A numeric range rank (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Intraspecific Taxon Conservation Status Ranks

- T#** **Intraspecific Taxon** (trinominal) – The status of intraspecific taxa (subspecies or varieties) are indicated by a “T-rank” following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an intraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon’s informal taxonomic status.

Subnational (S) Conservation Status Ranks

- S1** **Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.
- S2** **Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.
- S3** **Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4** **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5** **Secure** – Common, widespread, and abundant in the jurisdiction.
- S#S#** **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

- ?** **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status
- Q** **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The “Q” modifier is only used at a global level and not at a national or subnational level.

NSO Data from THP 1-20-00062-HUM



AMENDMENT NO 2LMINOR)
**Timberland
 Resource
 Consultants**

165 South Fortuna Boulevard, Fortuna, CA 95540
 707-725-1897 • fax 707-725-0972
 trc@timberlandresource.com

July 27, 2020

California Department of Forestry and Fire Protection
 Attention: Deputy Director Forest Practice
 135 Ridgeway Avenue
 Santa Rosa, CA 95402

NSO
 Valid Until: 2/1/2021

This amendment conforms to the rules and the regulations of the Board of Forestry and the Forest Practice Act.
 Reviewed by mb/vit date routed 8/15/20
 cc: Unit (2), BOE, SUB, RPF

Jonathan Leonard

Dear Deputy Director Forest Practice:

SUBJECT: 1-20-00062-HUM – MINOR

Please find the attached 2020 NSO Data.

Results

The Bushnell THP was surveyed seven times per protocol in 2020. Surveys occurred in March, April, May, and June. Activity Center Searches (ACS) were used to status known NSO's within 1.3 miles of the THP area. HUM1139 (formerly known as SFC-2018 Pair) was detected during ACS and Status Visits. HUM1140 (formerly known as NSO-Single Male) was detected during night time surveys in the vicinity of the activity center, although not detected during the ACS or Follow-Up search.

On the third visit during night-time surveys, an NSO male was detected approximately 50' from station 9, and a female NSO was heard approximately 1,500 feet to the southeast of station 9. Following this detection, a Follow-Up search was performed with no observations. No additional detections occurred during visits 4, 5, and 6 in the vicinity of stations 8 and 9. During the 5-1-20 Follow-Up search, a small amount of white-wash was observed underneath the tree where the male NSO was seen perched the previous night. This was an incidental observation as the amount of white-wash was minimal, and does not indicate a reoccurring perching location. The area surrounding stations 9 and 8 were previously logged during a 2018 NTO under NTMP 1-99NTMP-042, and current stand basal area is approximately 75 ft²/acre. Given the current stand composition, single detection throughout the 2020 season with no detections in previous years of survey efforts, and Negative Observation status during the Follow-Up search, the detection was likely that of a foraging pair.

Summary

In summary, there are no changes to the locations of NSO's within 1.3 miles of the plan area. Additionally, no new NSO's occur within the BAA. Therefore, the Take Avoidance will follow protection measures contained within the Section II of the THP, and the Take Avoidance Assessment located in Section V.

RECEIVED

JUL 27 2020

COAST AREA
 RESOURCE MANAGEMENT

Sincerely,



Jon Dylan Leonard, RPF #3107
Timberland Resource Consultants

Enclosures:

- 2020 Survey Data


RECEIVED
JUL 27 2020
COAST AREA
RESOURCE MANAGEMENT


Bushnell THP


NSO Survey Station Map

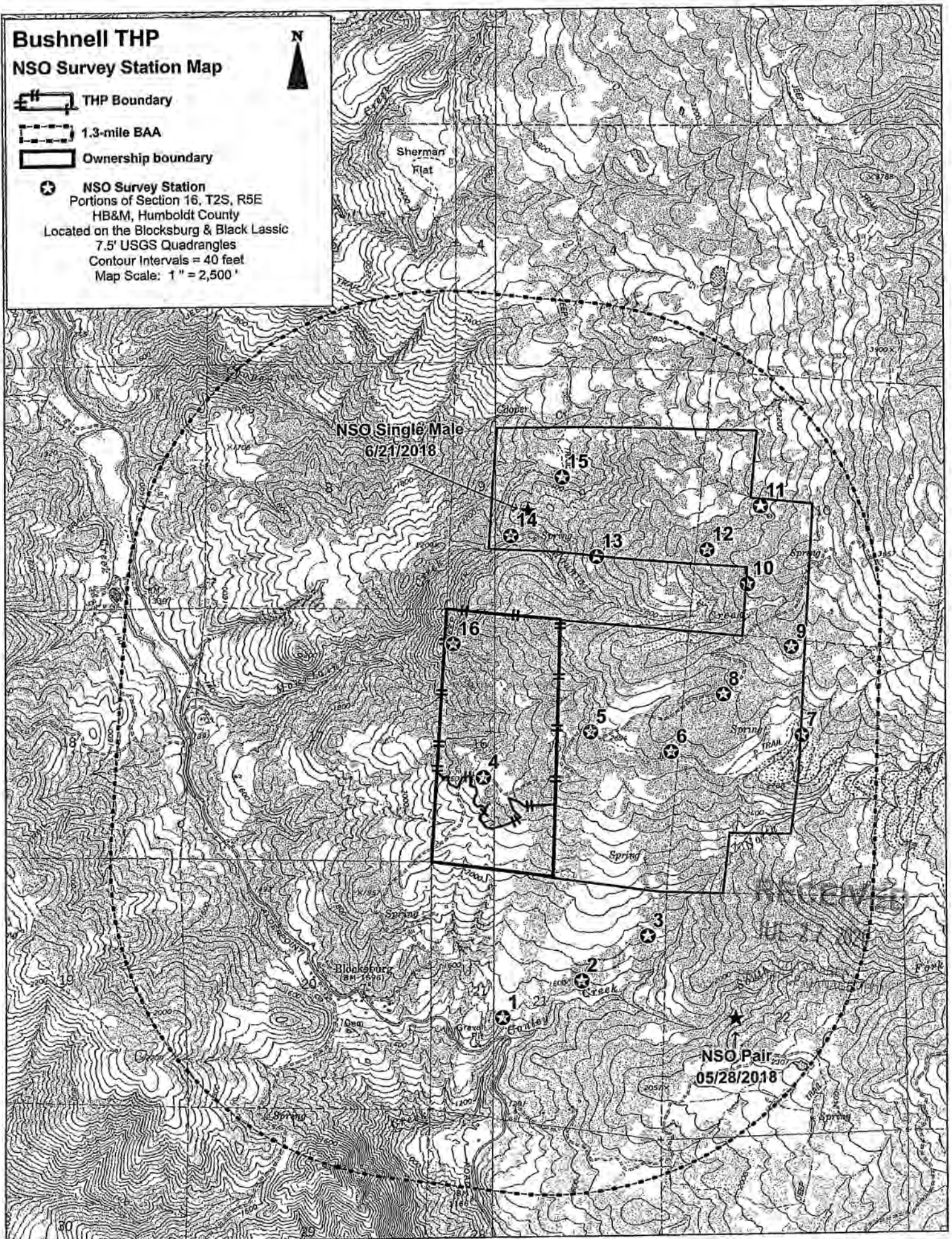


 THP Boundary

 1.3-mile BAA










 Ownership boundary

 NSO Survey Station
Portions of Section 16, T2S, R5E
HB&M, Humboldt County
Located on the Blocksburg & Black Lassic
7.5' USGS Quadrangles
Contour Intervals = 40 feet
Map Scale: 1" = 2,500'



Bushnell Ranch NTMP

2020 NSO Survey Map

- | | | | |
|---|-----------------------|---|-----------------|
|  | Property Line |  | Permanent Road |
|  | NTMP Boundary |  | Seasonal Road |
|  | Survey Area (1.3) |  | Access Road |
|  | Bushnell THP Property |  | Activity Center |
| | |  | Survey Station |

Single
06/21/2018

Rail
05/28/2018



Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: N/A | Visit Type: ACS

Project: <u>Bushnell Ranch</u>		
Observer: <u>JAH, RF</u>	Date: <u>04/02/2020</u>	Weather/Wind/Temp: <u>CL 10-2156°F</u>
Owl #: (If Known) <u>N/A</u>	Start Time: <u>17:40</u>	End Time: <u>20:18</u>

Notes: Began search on ridge above st 13. Slowly meandered through habitat (NR) downslope toward AC. Broadcasting low volume 4-notes, contact whistle, and mouse squeaks. Searched AC and habitat along Mountain Creek. No NISD detections.

Mousing Outcome

M1		M4	
M2		M5	
M3		M6	

Survey Types:
 ACS Activity Centac Search
 FUS Follow Up Search
 SV Status Visit

Weather codes:
 CL Clear
 FG Fog
 PC Partly Cloudy
 OC Overcast
 DR Drizzle

Wind codes:
 1 1-3 mph
 2 4-6 mph
 3 7-9 mph
 4 10-12 mph
 5 13-15 mph










Species Code:
 Northern Spotted Owl
 Barred Owl
 Great-horned Owl
 Western Screech Owl
 Northern Pygmy Owl
 Northern Saw-whet Owl
 Flammulated Owl
 Barn Owl
 Long-eared Owl
 Great Gray Owl

Sex Codes:
 SPOW Male M
 BADO Female F
 GHOW Unknown U
 WESO Pair PR
 NPOW
 NSOW
 FLOW
 BANG
 LEOW
 GGOW

RECEIVED
 JUL 27 2020

COAST AREA
 RESOURCE MANAGEMENT

Bushnell Ranch
04/02/2020 ACS

	Property Line		Permanent Road
	NTMP Boundary		Seasonal Road
	Survey Area (1.3)		Access Road
	Bushnell THP Property		Activity Center
			Survey Station



Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 2 Visit Type: MC

Project <u>Bushnell Ranch NTMP</u>		
Observer <u>RF JAH</u>	Date <u>4/16/20</u>	Weather/Wind/Temp <u>21 10 55°</u>

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
1	2015	2025	NC						Frogs, Cows
2	2028	2038	NC						Cows
4	2046	2100	NC						Truck stopped, EXT to listen.
16	2118	2128	NC						creek, distant dogs
15	2135	2145	NC						creek
14	2147	2157	NC						creek, frogs
13	2200	2210	NC						Frogs, creek, dogs
12	2216	2226	NC						Frogs
11	2234	2244	NC						Frogs creek
10	2248	2258	NC						Plane, frogs
9	2301	2311	NC						Frogs, creek
8	2315	2325	NC						Frogs
6	2327	2337	NC						dogs
7	2341	2358	NC	2342	BADO	M	345	1,000'	received contact whistle then 3 note owl flew up to station 2349
5	0005	0015	NC						dogs

*List all stations and note if skipped.

- | | | | | |
|----------------------|-----------------------|--------------------|-----------------------|-------------------|
| Survey Types: | Weather codes: | Wind codes: | Species Code: | Sex Codes: |
| SC Spot Checks | CL Clear | 1 1-3 mph | Northern Spotted Owl | SPOW Male M |
| NC Night Calling | FG Fog | 2 4-6 mph | Barred Owl | BADO Female F |
| TS Transect Surveys | PC Partly Cloudy | 3 7-9 mph | Great-horned Owl | GHOW Unknown U |
| DC Day Calling | OC Overcast | 4 10-12 mph | Western Screech Owl | WESO Pair PR |
| | DR Drizzle | 5 13-15 mph | Northern Pygmy Owl | NPOW |
| | | | Northern Saw-whet Owl | NSOW |
| | | | Flammulated Owl | FLOW |
| | | | Barn Owl | BANO |
| | | | Long-eared Owl | LEOW |
| | | | Great Gray Owl | GGOW |

RECEIVED

JUL 27 2020

COAST AREA RESOURCE MANAGEMENT

Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: _____ Visit Type: ACS

Project: <u>Bushnell Ranch NTMP</u>		
Observer: <u>RF, JAH</u>	Date: <u>4/16/20</u>	Weather/Wind/Temp: <u>cl 10/58°</u>
Owl #: _____ (If Known)	Start Time: <u>1745</u>	End Time: <u>2000</u>

Notes:

Headed SE from trucks down old road until turning S off road into Fir stand. Crossed S. fork of creek. Played 3x F 4note. Retrieved Con 1817 220° PR, 50'. Cont. to pair. Mouse 1 to female ~~at~~ SPOW 1828. F took mouse just out of sight briefly then returned. Mouse 2 1835 to Female, 1856 mouse 2 eaten by female. Mouse 3 taken by male 1903. After taking mouse, Male gave (2x) 4note hoots 1907. Male eats mouse. Mouse 4 to female 1909. Mouse 5 to male, gives 4note, then after a minute pause gives another 4note 1915. Male flies NW out of sight 1925. Mouse 6 to female 1937. Walked downstream NW then back N to truck.

Mousing Outcome

M1	Female	1828	M4	Female	1909
M2	Female	1835	M5	Male	1915
M3	Male	1903	M6	Female	1937

Survey Types:
 ACS Activity Center Search
 FUS Follow Up Search
 SV Status Visit

Weather codes:
 CL Clear
 FG Fog
 PC Partly Cloudy
 OC Overcast
 DR Drizzle

Wind codes:
 1 1-3 mph
 2 4-6 mph
 3 7-9 mph
 4 10-12 mph
 5 13-15 mph

Species Code:
 Northern Spotted Owl
 Barred Owl
 Great-horned Owl
 Western Screech Owl
 Northern Pygmy Owl
 Northern Saw-whet Owl
 Flammulated Owl
 Barn Owl
 Long-eared Owl
 Great Gray Owl

SPOW
 BADO
 GHOW
 WESO
 NPOW
 NSOW
 FLOW
 BANO
 LEOW
 GGOW

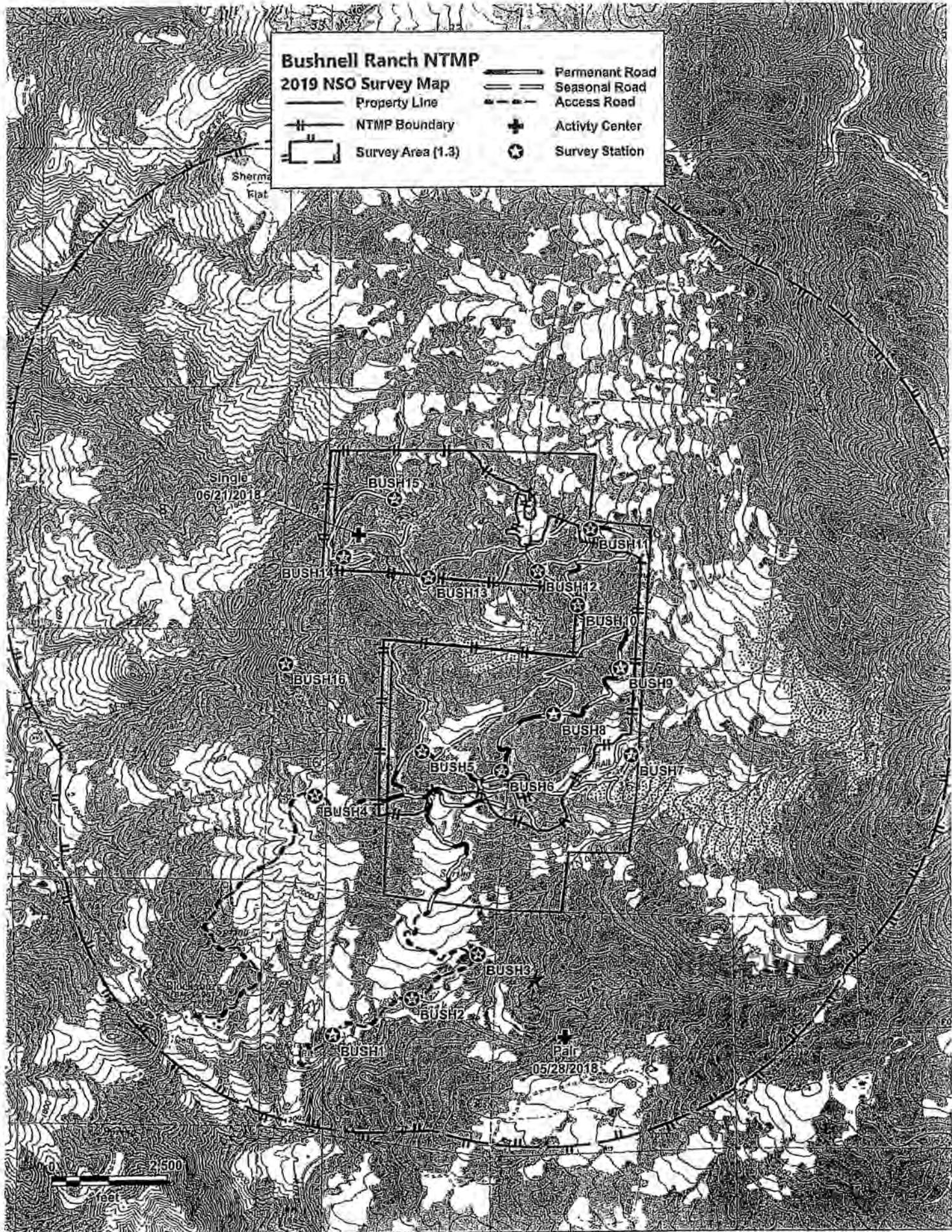
Sex Codes:
 Male M
 Female F
 Unknown U
 Pair PR

RECEIVED
 JUL 27 2020

COAST AREA
 RESOURCE MANAGEMENT

Bushnell Ranch NTMP
2019 NSO Survey Map

	Property Line		Permanent Road
	NTMP Boundary		Seasonal Road
	Survey Area (1.3)		Access Road
			Activity Center
			Survey Station



Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 3 Visit Type: NC

Project <u>Bushnell NTMP</u>		
Observer <u>RF JAH</u>	Date <u>4/28/20</u>	Weather/Wind/Temp <u>cl 11-2/53°</u>

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
01	2005	2015	NC						crickets, songbirds, frogs, creek
02	2019	2034	NC						creek, songbirds, truck passed, ext. to listen
04	2048	2058	NC						Cows, frogs
16	2103	2103	NC						creek, frogs, plane
15	2120	2130	NC						creek, frogs, GHOW
14	2132	2143	NC						creek
13	2147	2157	NC						distant generator
12	2205	2215	NC						Frogs
11	2230	2240	NC						Frogs
10	2247	2257	NC						Frogs GHOW
9	2305	2325	CON	2306	SPOW	M	250	50'	4 & 5 notes M then at 2308 F
						PR			3 & 4 notes 128° very distant
									(1500'). walked down road
									and found Male in Fir.
8	2330	2340	CON	2330	SPOW	M	90	1000'	Male heard right as I turned
10	2343								ward off.
6	2343	2353	NC						generator, crickets
7	2355	0005	NC						generator, frogs
5	0009	0019	NC						generator (faint), crickets

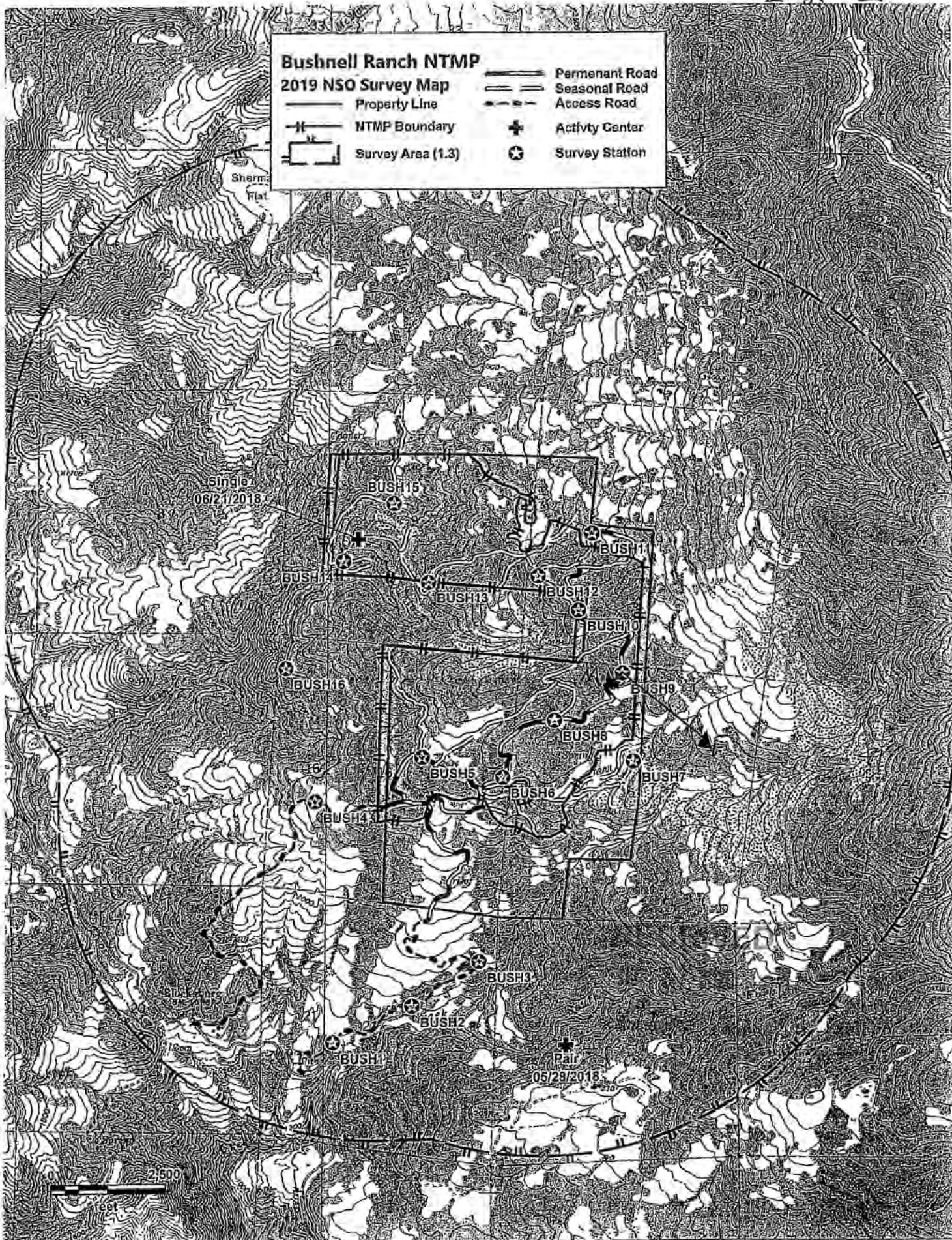
*List all stations and note if skipped.

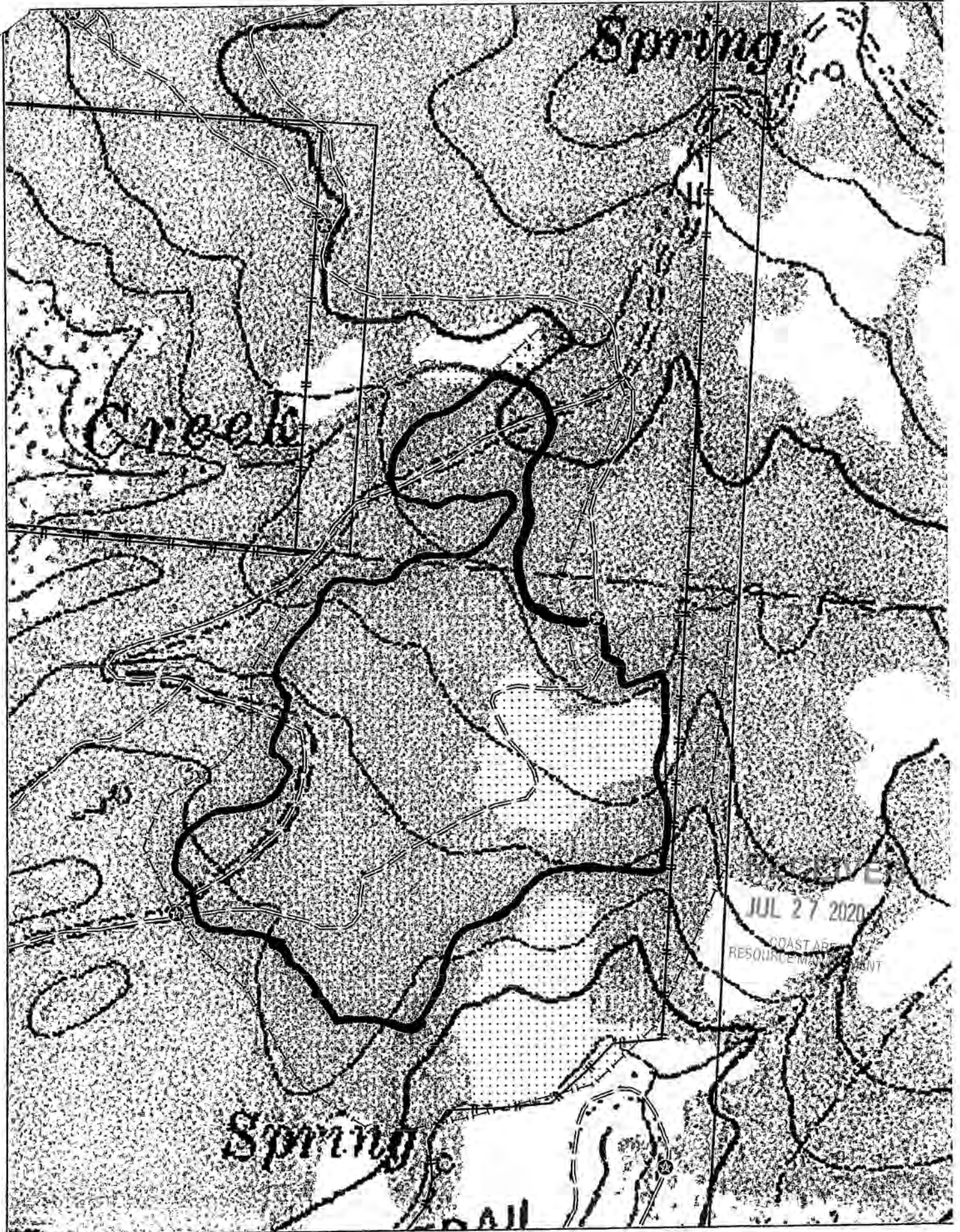
- | | | | | |
|----------------------|-----------------------|--------------------|-----------------------|-------------------|
| Survey Types: | Weather codes: | Wind codes: | Species Codes: | Sex Codes: |
| SC Spot Checks | CL Clear | 1 1-3 mph | Northern Spotted Owl | SPOW Male M |
| NC Night Calling | FG Fog | 2 4-6 mph | Barred Owl | BADO Female F |
| TS Transect Surveys | PC Partly Cloudy | 3 7-9 mph | Great-horned Owl | GHOW Unknown U |
| DC Day Calling | OC Overcast | 4 10-12 mph | Western Screech Owl | WESO Pair PR |
| | DR Drizzle | 5 13-15 mph | Northern Pygmy Owl | NPOW |
| | | | Northern Saw-whet Owl | NSOW |
| | | | Flammulated Owl | FLOW |
| | | | Barn Owl | BANO |
| | | | Long-eared Owl | LEOW |
| | | | Great Gray Owl | GGOW |

RECEIVED
JUL 27 2020
 COAST AREA
 RESOURCE MANAGEMENT

Bushnell Ranch NTMP
2019 NSO Survey Map

	Property Line		Permanent Road
	NTMP Boundary		Seasonal Road
	Survey Area (1.3)		Access Road
			Activity Center
			Survey Station





Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: N/A Visit Type: SV

Project: <u>Bushnell Ranch NTMP</u>		
Observer: <u>RF JAH</u>	Date: <u>5/21/20</u>	Weather/Wind/Temp: <u>CL 11-21 57°</u>
Owl #: (If Known)	Start Time: <u>1845</u>	End Time: <u>2020</u>

Notes:

Started search from road. Headed East into habitat toward AC. Began hooting & immediately heard response from AC. Heard both Male & Female 1920. Found pair in AC 1923. 1926 Male took M1, 1928 Female took M2, Male ate M1, Female ate M2 shortly after. 1932 Female took M3. 1936 Male took M4; both eaten. 1939 Female took M5. 1945 Male took M6. 1947 Female ate M5, 1954 Male ate M6.

Non-nesting status

Mousing Outcome			
M1	to Male, eaten	M4	to Male, eaten
M2	to Female, eaten	M5	to Female, eaten
M3	to Female, eaten	M6	to Male, eaten

Survey Types:
 ACS Activity Center Search
 FUS Follow Up Search
 SV Status Visit

Weather codes:
 CL Clear
 FG Fog
 PC Partly Cloudy
 OC Overcast
 DR Drizzle

Wind codes:
 1 1-3 mph
 2 4-8 mph
 3 7-9 mph
 4 10-12 mph
 5 13-15 mph

Species Code:
 Northern Spotted Owl
 Barred Owl
 Great-horned Owl
 Western Screech Owl
 Northern Pygmy Owl
 Northern Saw-whet Owl
 Flammulated Owl
 Barn Owl
 Long-eared Owl
 Great Gray Owl

Sex Codes:
 Male M
 Female F
 Unknown U
 Pair PR

RECEIVED
 JUL 27 2020









COAST AREA
 RESOURCE MANAGEMENT

5/22/20

2 of 2

Bushnell Ranch NTMP

2019 NSO Survey Map

- | | | | |
|---|-------------------|---|-----------------|
|  | Property Line |  | Permanent Road |
|  | NTMP Boundary |  | Seasonal Road |
|  | Survey Area (1,3) |  | Activity Center |
|  | |  | Survey Station |













Single
06/21/2018

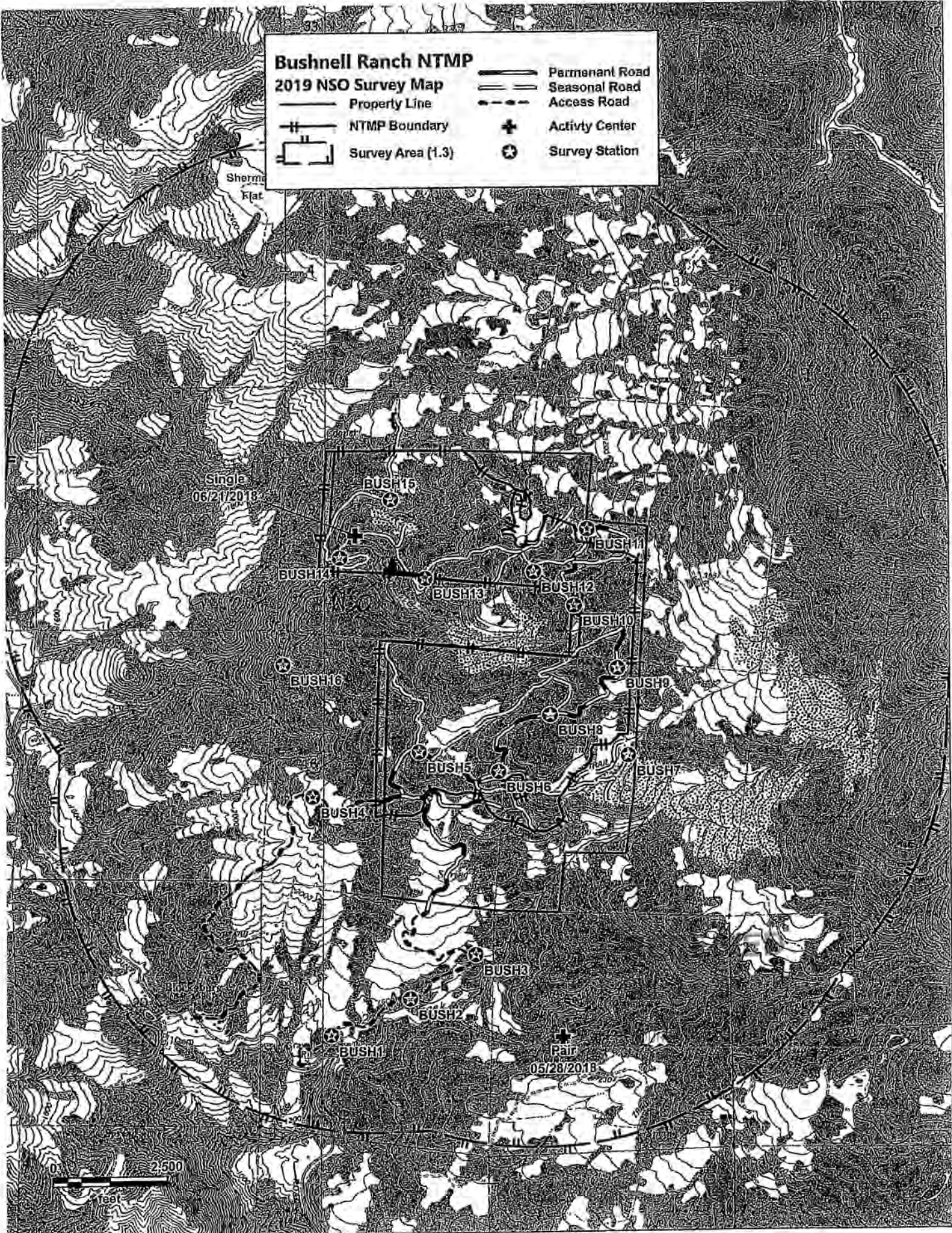
Pair
05/28/2018



Bushnell Ranch NTMP

2019 NSO Survey Map

- | | | | |
|---|-------------------|---|-----------------|
|  | Property Line |  | Permanent Road |
|  | NTMP Boundary |  | Seasonal Road |
|  | Survey Area (1.3) |  | Access Road |
|  | |  | Activity Center |
|  | |  | Survey Station |



Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: 5 | Visit Type: FUS

Project: <u>Bushnell Ranch NTMP</u>		
Observer: <u>RF JAH</u>	Date: <u>6/3/20</u>	Weather/Wind/Temp: <u>CL / 1 / 65°</u>
Owl #: (If Known)	Start Time: <u>1745</u>	End Time: <u>2105</u>

Notes:

Started from station 14. Headed East/N.E. off road into habitat. Crossed road N and searched around AC periodically stopping to hoot. Songbirds, grouse, & turkey heard. Searched good habitat north of AC then headed S.E. Crossed road and side-hilled towards station 13. Stopped to hoot in habitat just north of station. Turned north & cont. through good habitat heavily managed fir stand w/ madrone & pepperwood. Crossed creek heading north. Passed through small open clearing before heading back into habitat. Headed west through good habitat and then north to stay in trees. Headed north of station 15 to top of property. Stopped to hoot. Exited habitat into large clearing at prop. boundary & road. Met another owl tech (kyle) heading up road. Briefly searched small stand west of road before heading south to the track

Mousing Outcome

M1		M4
M2		M5
M3		M6











- | | | | | |
|----------------------------|-----------------------|--------------------|-----------------------|-------------------|
| Survey Types: | Weather codes: | Wind codes: | Species Code: | Sex Codes: |
| ACS Activity Center Search | CL Clear | 1 1-3 mph | Northern Spotted Owl | SPOW Male M |
| FUS Follow Up Search | FG Fog | 2 4-6 mph | Barred Owl | BADO Female F |
| SV Status Visit | PC Partly Cloudy | 3 7-9 mph | Great-horned Owl | GHOW Unknown U |
| | OC Overcast | 4 10-12 mph | Western Screech Owl | WESO Pair PR |
| | DR Drizzle | 5 13-15 mph | Northern Pygmy Owl | NPOW |
| | | | Northern Saw-whet Owl | NSOW |
| | | | Flammulated Owl | FLOW |
| | | | Barn Owl | BANO |
| | | | Long-eared Owl | LEOW |
| | | | Great Gray Owl | GOOW |

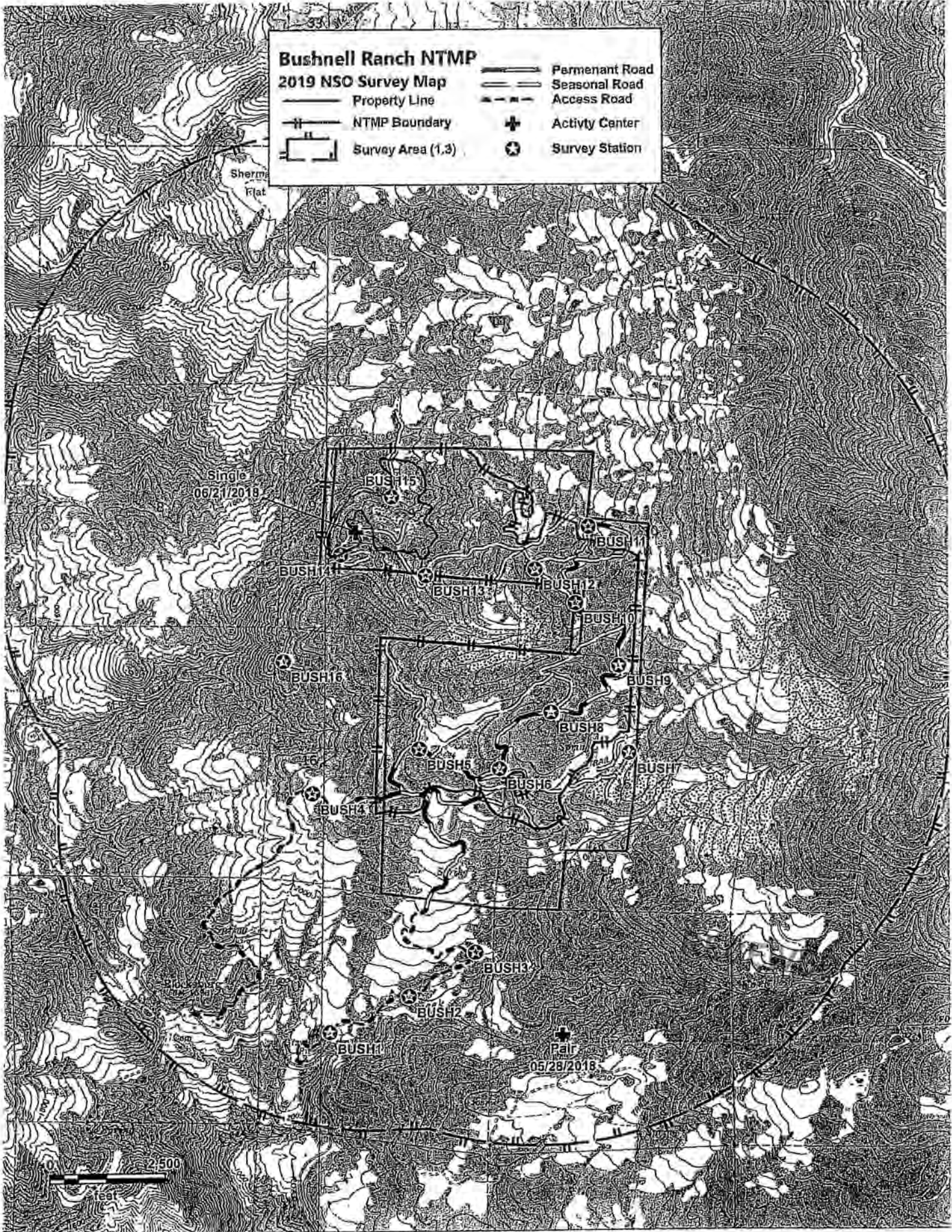
RECEIVED
JUL 27 2020
 COAST AREA
 RESOURCE MANAGEMENT

2012

Bushnell Ranch NTMP

2019 NSO Survey Map

- | | | | |
|---|-------------------|---|-----------------|
|  | Property Line |  | Permenant Road |
|  | NTMP Boundary |  | Seasonal Road |
|  | Survey Area (1,3) |  | Access Road |
|  | |  | Activity Center |
|  | |  | Survey Station |



From: dleonard@timberlandresource.com
Sent: Monday, July 27, 2020 12:31 PM
To: Santa Rosa Review Team@CALFIRE
Subject: 1-20-00062-HUM, NSO Amendment RVSD
Attachments: 1-20-00062-HUM, NSO Amendment_RVSD.pdf

Warning: this message is from an external user and should be treated with caution.

Please find attached to this email the Revised NSO Survey Data summary to be included as a minor amendment for THP 1-20-00062-HUM.

Thank you,

Jon Dylan Leonard
Registered Professional Forester #3107
Timberland Resource Consultants
165 S. Fortuna Blvd
Fortuna, CA 95540

o: 707-725-1897
c: 317-965-3198

RECEIVED
JUL 27 2020
COAST AREA
RESOURCE MANAGEMENT

From: Baker, Michael@CALFIRE
Sent: Monday, July 27, 2020 3:35 PM
To: Santa Rosa Review Team@CALFIRE
Cc: Solinsky, Bill@CALFIRE
Subject: RE: 1-20-00062-HUM, NSO Amendment RVSD

Santa Rosa Review Team,

I have reviewed the cover letter with data summary, scans of field datasheets, and calling station map, submitted as a request for amendment to the approved 1-20-00062 HUM plan.

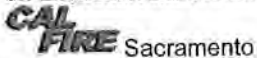
The surveys were conducted in accordance with USFWS 2012 NSO Survey Protocol guidance.

The submitted information is clear and the survey summary is accurate. Additional discussion of the pair detection (during nighttime foraging and from within foraging habitat east of the current plan area) has been provided. These aspects of this amendment request are appreciated.

An explicit, written statement regarding the submitter's determination regarding the avoidance of take of NSO, given the current survey results and plan Protection Measures, would also be appreciated.

I recommend that the amendment request be accepted and applicable until February 1, 2021.

Michael Baker

Michael D. Baker, Ph.D.
Forest Practice Biologist
Sr. Environmental Scientist

Email preferred over voicemail
Cell: 916-616-0021

Every Californian should conserve water **and keep trees alive**.
Find out how at: saveourwater.com/trees · Drought.CA.gov

From: Santa Rosa Review Team@CALFIRE
Sent: Monday, July 27, 2020 1:18 PM
To: Baker, Michael@CALFIRE <Michael.Baker@fire.ca.gov>
Subject: FW: 1-20-00062-HUM, NSO Amendment RVSD

From: dleonard@timberlandresource.com [<mailto:dleonard@timberlandresource.com>]
Sent: Monday, July 27, 2020 12:31 PM
To: Santa Rosa Review Team@CALFIRE <SantaRosaReviewTeam@fire.ca.gov>
Subject: 1-20-00062-HUM, NSO Amendment RVSD

RECEIVED
JUL 27 2020

COAST AREA
RESOURCE MANAGEMENT

Warning: this message is from an external user and should be treated with caution.

Please find attached to this email the Revised NSO Survey Data summary to be included as a minor amendment for THP 1-20-00062-HUM.

Thank you,

Jon Dylan Leonard

Registered Professional Forester #3107

Timberland Resource Consultants

165 S. Fortuna Blvd

Fortuna, CA 95540

o: 707-725-1897

c: 317-965-3198

RECEIVED
JUL 27 2020
COAST AREA
RESOURCE MANAGEMENT



Timberland Resource Consultants

165 South Fortuna Boulevard, Fortuna, CA 95540

707-725-1897 • fax 707-725-0972

trc@timberlandresource.com

California Department of Forestry and Fire Protection
Attention: Deputy Director Forest Practice
135 Ridgeway Avenue
Santa Rosa, CA 95402

May 3, 2021

AMENDMENT NO 6 (Minor)

This amendment conforms to the rules and the regulations of the Board of Forestry and the Forest Practice Act

Reviewed by *JR* Date routed MAY 04 2021
cc: Unit (2), BOE, SUB, RPF

SUBJECT: 1-20-00062-HUM – MINOR

Dear Deputy Director Forest Practice:

NSO

Valid Until: FEB 01 2022

Please find the attached 2021 NSO Data.

Results

The Bushnell THP was Spot Check surveyed three times per protocol in 2021. Surveys occurred in March and April. Activity Center Searches (ACS) were used to status known NSO's within 1.3 miles of the THP area. HUM1139, pair, was detected during the ACS at the last known pair location. During this visit the pair was non-nesting. A reproductive visit has not yet been conducted as the activity center is located over 0.25 miles away from the harvest boundary and reproductive status will have no bearing on the THP. A reproduction visit will occur after May 1st as part of data collection associated with the neighboring NTMP. HUM1140 was detected during night time surveys in the vicinity of the activity center, although was not detected during the Follow-Up search/ACS. No additional detections from HUM1140 occurred during the 2021 Spot Check survey season.

Additionally, a barred owl was detected on the third visit during night-time surveys at station 8. This detection occurs in the vicinity of past observed barred owl activity within the BAA (station 7 during the 2020 survey season).

Summary

In summary, there are no changes to the locations of NSO's within 1.3 miles of the plan area. Additionally, no new NSO's occur within the BAA. Therefore, the Take Avoidance will follow protection measures contained within the Section II of the THP, and the Take Avoidance Assessment located in Section V.

Sincerely,

Jon Dylan Leonard, RPF #3107
Timberland Resource Consultants

Enclosures:

- 2021 Survey Data

RECEIVED

MAY 03 2021

1-20-00062-HUM

1

COAST AREA OFFICE
RESOURCE MANAGEMENT

Bushnell THP

Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 1 Visit Type: NC

Project	Bushnell Ranch NTMP	
Observer	RF	Date 3-2-21
		Weather/Wind/Temp CL 10-1/55°

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
12	1802	1812	NC						Frogs, distant creek
11	1817	1827	NC						Frogs
10	1835	1845	NC						Frogs, creek
9	1852	1902	NC						Frogs, creek, GHOW, NPOW
8	1905	1915	NC						Frogs
6	1918	1928	NC						dogs
7	1933	1943	NC						Frogs
5	1947	1957	NC						dogs, crickets
3	2009	2024	NC						creek, ext. for listening
1	2033	2043	NC						creek, cows, Frogs
2	2045	2055	NC						creek, Frogs
16	2110	2120	NC						creek, Frogs
13	2127	2145	CON	2140	SPOW	M	304°	300'	frequent gunshots for extent of station, GHOW, large/distant explosion from N/W @ 2134 ext. for possible detection, 4 note heard only once more.
15	2200	2216	CON	2210	SPOW	M	214°	500'	creek, 3 & 4 notes heard
14	2219	2230	CON	2220	SPOW	M	012°	400'	creek, distant generator, just listened, 4 & 5 notes heard
14									
4	2236	2246	NC						COWS, creek

*List all stations and note if skipped.

Survey Types:

SC Spot Checks
 NC Night Calling
 TS Transect Surveys
 DC Day Calling

Weather codes:

CL Clear
 FG Fog
 PC Partly Cloudy
 OC Overcast
 DR Drizzle

Wind codes:

1 1-3 mph
 2 4-6 mph
 3 7-9 mph
 4 10-12 mph
 5 13-15 mph

Species Code:

Northern Spotted Owl
 Barred Owl
 Great-horned Owl
 Western Screech Owl
 Northern Pygmy Owl
 Northern Saw-whet Owl
 Flammulated Owl
 Barn Owl
 Long-eared Owl
 Great Gray Owl

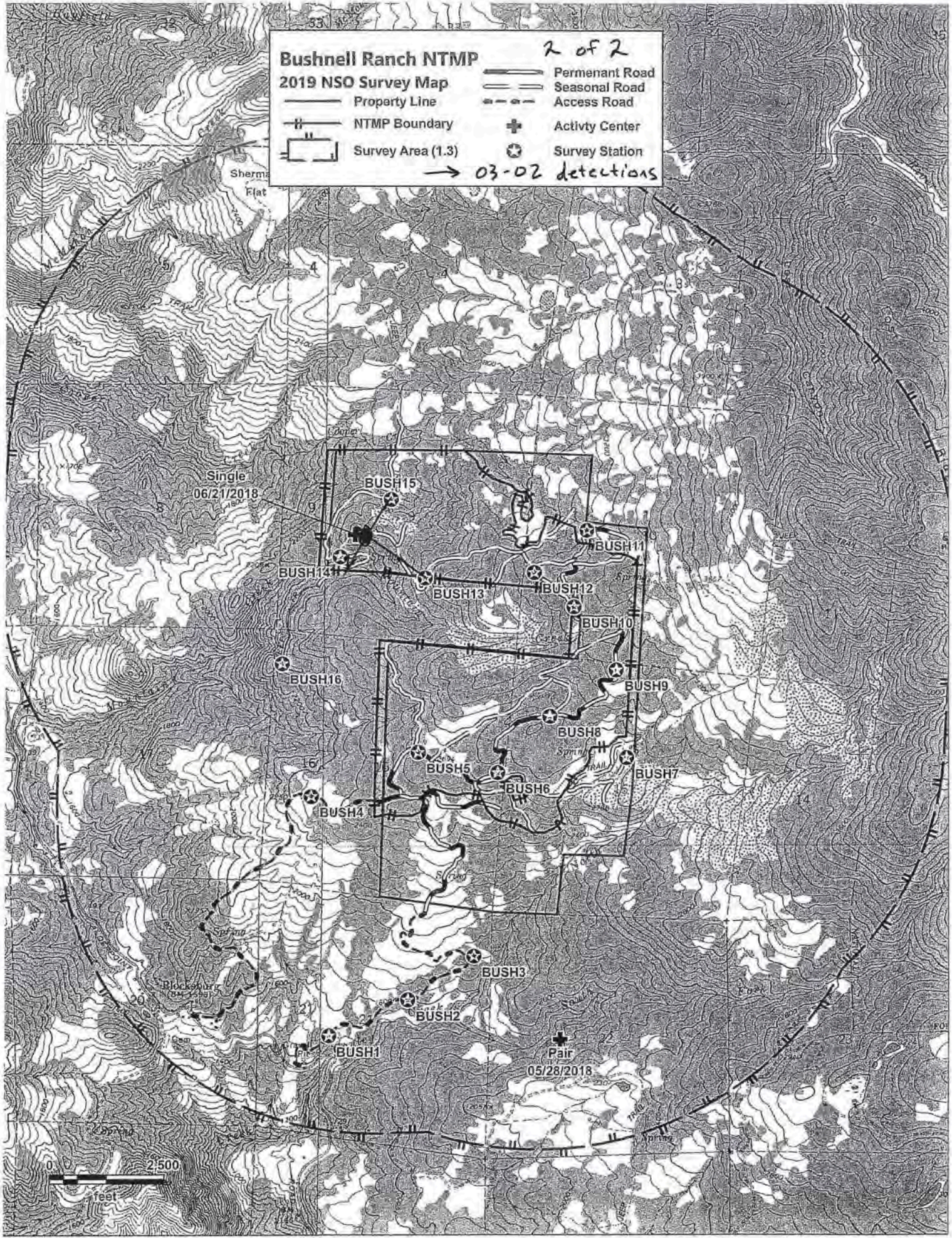
Sex Codes:

SPOW Male M
 BADO Female F
 GHOW Unknown U
 WESO Pair PR
 NPOW
 NSOW
 FLOW
 BANO
 LEOW
 GGOW

Bushnell Ranch NTMP
2019 NSO Survey Map

2 of 2

- Permanent Road
- Seasonal Road
- - - Access Road
- Property Line
- NTMP Boundary
- ⊕ Activity Center
- ⊙ Survey Station
- 03-02 detections
- ▭ Survey Area (1.3)



Northern Spotted Owl Search Form

Timberland Resource Consultants

Page ___ of ___

Recent Night Visit#: 1 Visit Type: FUS

Project: Bushnell Ranch NTMP		
Observer: RF	Date: 3-3-21	Weather/Wind/Temp: CL 10 / 52
Owl #: (If Known)	Start Time: 1630	End Time: 1845

Notes: Parked up-hill from station 14. Hiked E towards AC, turned into good habitat N. off road. Presented M1 and cont. through good habitat. zig-zagged up TOPO to vantage point on ridge & stopped to hoot 1710-1725; grouse & GHOW cont. E toward station 13 turned S. just before station 13 on edge of habitat. crossed road going S. cont. downhill to prop boundary, followed fence S. through mixed habitat, stopped to hoot 1800 heard leaf blowers & yelling to S. gunshots begin 1808. Headed N. to AC stopped in good habitat to hoot, presented M1 again. gunshots & grouse still heard. followed TOPO W along S side of road then N to truck. Hooted from truck 1835-1845

Mousing Outcome

M1		M4	
M2		M5	
M3		M6	

Survey Types:

ACS Activity Center Search
FUS Follow Up Search
SV Status Visit

Weather codes:

CL Clear
FG Fog
PC Partly Cloudy
OC Overcast
DR Drizzle

Wind codes:

1 1-3 mph
2 4-5 mph
3 7-9 mph
4 10-12 mph
5 13-15 mph

Species Code:

Northern Spotted Owl
Barred Owl
Great-horned Owl
Western Screech Owl
Northern Pygmy Owl
Northern Saw-whet Owl
Flammulated Owl
Barn Owl
Long-eared Owl
Great Gray Owl

SPOW

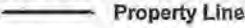







BADO
GHOW
WESO
NPOW
NSOW
FLOW
BANO
LEOW
GGOW

Sex Codes:

Male M
Female F
Unknown U
Pair PR

Bushnell Ranch NTMP

2021 NSO Survey Map

- | | | | |
|---|-------------------|---|-----------------|
|  | Property Line |  | Permanent Road |
|  | NTMP Boundary |  | Seasonal Road |
|  | Survey Area (1.3) |  | Access Road |
| | |  | Activity Center |
| | |  | Survey Station |

Single
06/21/2018



Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: 1 Visit Type: ACS

Project: <u>Bushnell NTMP</u>		
Observer: <u>RF</u>	Date: <u>3-31-21</u>	Weather/Wind/Temp: <u>CL 10-11 60°</u>
Owl #: (If Known)	Start Time: <u>1800</u>	End Time: <u>2010</u>

Notes:

Began from truck S/E of Station 3. Headed into habitat around S. fork of Conley Creek crossed creek and began uphill towards AC. 1830 reached flagging Jon large Fir with snag. 1840 Female seen in Fir. 1842 Female took M1 and cached in large Fir. 1843 Female took M2 and 1847 ~~ATE~~ M2. 1857 F. took M3. 1905 F cached M3 in same fir. 1915 F. took M4 1930 F ate M4 1935 F took M5 1936 F gives 3 note call. M flew in to fir 1938 F flies to M and transfers M5 to male. 1940 Male flies N. out of sight. 1950 F took M6 and cached in same fir. Headed back to truck.

Mousing Outcome

M1	<u>1842 → F</u>	M4	<u>1915 → F</u>
M2	<u>1843 → F</u>	M5	<u>1936 → M</u>
M3	<u>1857 → F</u>	M6	<u>1950 → F</u>

Survey Types:

ACS Activity Center Search
FUS Follow Up Search
SV Status Visit

Weather codes:

CL Clear
FG Fog
PC Partly Cloudy
OC Overcast
DR Drizzle

Wind codes:

1 1-3 mph
2 4-6 mph
3 7-9 mph
4 10-12 mph
5 13-15 mph

Species Code:

Northern Spotted Owl
Barred Owl
Great-horned Owl
Western Screech Owl
Northern Pygmy Owl
Northern Saw-whet Owl
Flammulated Owl
Barn Owl
Long-eared Owl
Great Gray Owl

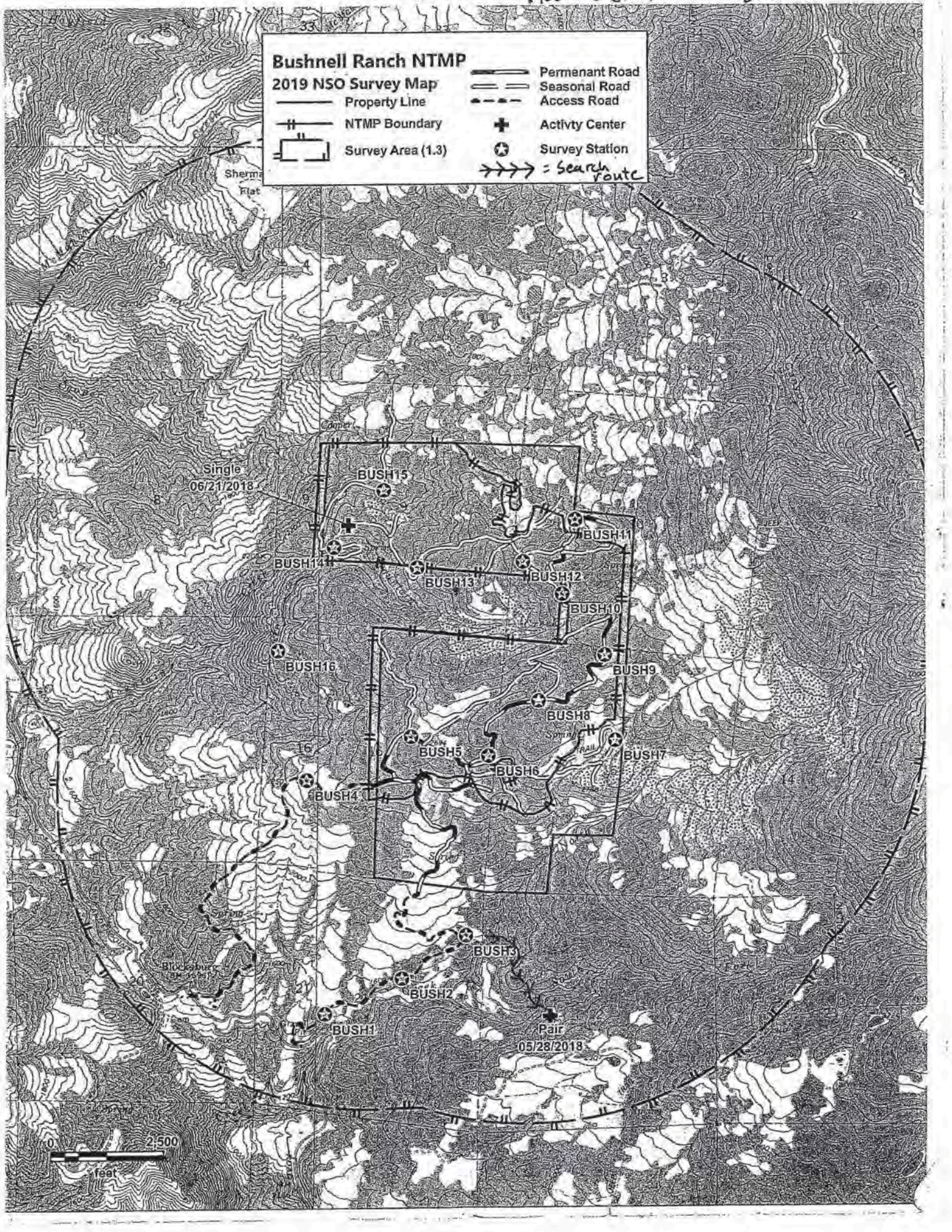
SPOW
BADO
GHOW
WESO
NPOW
NSOW
FLOW
BANO
LEOW
GGOW

Sex Codes:

Male M
Female F
Unknown U
Pair PR

Bushnell Ranch NTMP
2019 NSO Survey Map

	Property Line		Permanent Road
	NTMP Boundary		Seasonal Road
	Survey Area (1.3)		Access Road
			Activity Center
			Survey Station
			Search route



Northern Spotted Owl Survey Form

Herland Resource Consultants

Visit#: 2 Visit Type: NC

Project <u>Bushnell Ranch</u>		
Observer <u>RF</u>	Date <u>3-31-21</u>	Weather/Wind/Temp <u>CL 11-21/60°</u>

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
1	2025	2035	NC						creek, cows
4	2045	2055	NC						cows, frogs
16	2059	2109	NC						creek
15	2114	2124	NC						Creek
14	2127	2137	NC						creek, frogs
13	2141	2151	NC						cow at station, distant creek
12	2155	2205	NC						frogs, cows
11	2209	2219	NC						Frogs, creek
10	2225	2235	NC						distant cows
9	2237	2247	NC						distant creek
8	2252	2302	NC						cows
6	2306	2316	NC						quiet
7	2323	2333	NC						frogs
5	2340	2350	NC						cows, frogs

*List all stations and note if skipped.

- | | | | | |
|----------------------|-----------------------|--------------------|-----------------------|-------------------|
| Survey Types: | Weather codes: | Wind codes: | Species Code: | Sex Codes: |
| SC Spot Checks | CL Clear | 1 1-3 mph | Northern Spotted Owl | SPOW Male M |
| NC Night Calling | FG Fog | 2 4-6 mph | Barred Owl | BADO Female F |
| TS Transect Surveys | PC Partly Cloudy | 3 7-9 mph | Great-horned Owl | GHOW Unknown U |
| DC Day Calling | OC Overcast | 4 10-12 mph | Western Screech Owl | WESO Pair PR |
| | DR Drizzle | 5 13-15 mph | Northern Pygmy Owl | NPOW |
| | | | Northern Saw-whet Owl | NSOW |
| | | | Flammulated Owl | FLOW |
| | | | Barn Owl | BANO |
| | | | Long-eared Owl | LEOW |
| | | | Great Gray Owl | GGOW |

Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 3 Visit Type: NC

Project	Bushnell Ranch	
Observer	RF	Date 4-17-20
		Weather/Wind/Temp CC 11-2/46°

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
4	0141	0151	NC						Frogs, distant dogs, NPOW
16	0154	0204	NC						creek, distant dogs, frogs
14	0208	0218	NC						creek frogs
15	0221	0231	NC						NSOW, creek, generator <i>↳ N. saw-whet owl</i>
13	0238	0248	NC						NSOW, cows
12	0253	0303	NC						distant generator, inf. wind gusts, frogs
11	0308	0318	NC						Wind 3-4, frogs
10	0324	0334	NC						inf wind gusts, frogs
9	0337	0347	NC						Wind 3-4, creek, distant dogs
8	0351	0403	NC						NSOW, inf. Windgusts, BADO Plew into station @ 0400.
6	0406	0416	NC						inf. Wind gusts, large animal in brush
7	0421	0431	NC						inf. Wind gusts
5	0436	0446	NC						creek, frogs
2	0458	0508	NC						creek, frogs, NPOW
1	0511	0521	NC						creek, frogs

*List all stations and note if skipped.

Survey Types:

- SC Spot Checks
- NC Night Calling
- TS Transect Surveys
- DC Day Calling

Weather codes:

- CL Clear
- FG Fog
- PC Partly Cloudy
- OC Overcast
- DR Drizzle

Wind codes:

- 1 1-3 mph
- 2 4-6 mph
- 3 7-9 mph
- 4 10-12 mph
- 5 13-15 mph

Species Codes:

- Northern Spotted Owl
- Barred Owl
- Great-horned Owl
- Western Screech Owl
- Northern Pygmy Owl
- * Northern Saw-whet Owl
- Flammulated Owl
- Barn Owl
- Long-eared Owl
- Great Gray Owl

Sex Codes:

- SPOW Male M
- BADO Female F
- GHOW Unknown U
- WESO Pair PR
- NPOW
- NSOW
- FLOW
- BANO
- LEOW
- GGOW

From: dleonard@timberlandresource.com
Sent: Monday, May 3, 2021 7:22 AM
To: Santa Rosa Review Team@CALFIRE
Subject: 1-20-00062-HUM 2021 NSO Survey Data
Attachments: 1-20-00062-HUM_NSO_minor.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Warning: this message is from an external user and should be treated with caution.

Good morning,

Attached is the 2021 NSO Survey Data to be included with plan 1-20-00062-HUM as a minor amendment.

Sincerely,

Jon Dylan Leonard

Registered Professional Forester #3107
Timberland Resource Consultants
165 S. Fortuna Blvd
Fortuna, CA 95540

o: 707-725-1897
c: 317-965-3198

RECEIVED

MAY 03 2021

COAST AREA OFFICE

RESOURCE MANAGEMENT



Timberland Resource Consultants

165 South Fortuna Boulevard, Fortuna, CA 95540

707-725-1897 • fax 707-725-0972

trc@timberlandresource.com

California Department of Forestry and Fire Protection
Attention: Deputy Director Forest Practice
135 Ridgeway Avenue
Santa Rosa, CA 95401

April 15, 2022

AMENDMENT NO 10 (Minor)

NSO

Valid Until: 02-01-2023

SUBJECT: 1-20-00062-HUM - MINOR

Dear Deputy Director Forest Practice:

Please find the attached 2022 NSO Data.

Results

The Bushnell THP was Spot Check surveyed three times per protocol in 2022. Surveys occurred in March and April. Activity Center Searches (ACS) were used to status known NSO's within 0.5-miles of the THP area. HUM1140 was established as a Resident Single male owl in 2018, and the activity center is located 0.4-miles from the THP. HUM1140 was not detected during the 2022 ACS. No detections from HUM1140 occurred during the 2022 Spot Check survey season.

One additional activity center is known within 1.3-miles of the THP. HUM1139 is located 1.1-miles from the THP on private property. This AC has not been searched for so far in the 2022 season, however an ACS visit will occur as part of data collection associated with the neighboring NTMP. No detections from HUM1139 occurred during the 2022 Spot Checks.

No detections of northern spotted owls, nor barred owls, occurred during the 2022 survey season.

Summary

In summary, there are no changes to the locations of NSO's within 1.3 miles of the plan area. Additionally, no new NSO's occur within the BAA. Therefore, the Take Avoidance will follow protection measures contained within the Section II of the THP, and the Take Avoidance Assessment located in Section V.

Sincerely,

Jon Dylan Leonard, RPF #3107
Timberland Resource Consultants

Enclosures:

- 2022 Survey Data

1-20-00062-HUM

RECEIVED

APR 15 2022

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Bushnell THP

Northern Spotted Owl Search Form

Timberland Resource Consultants

Recent Night Visit#: N/A Visit Type: ACS

Project: <u>Bushnell Ranch</u>		
Observer: <u>R.F.</u>	Date: <u>3/10/22</u>	Weather/Wind/Temp: <u>CL 11 158°</u>
Owl #: <u>N/A</u> (If Known)	Start Time: <u>1505</u>	End Time: <u>1820</u>

Notes:

Started on road above station 13, headed off road N then NE. Grouse, & songbirds heard. Travelled through good habitat. Stopped to listen 1525-1530. Stayed in habitat and traversed downhill stopping periodically. Followed hillside S, crossed creek, stopped to call 1630-1640. Raven, cows, grouse. Headed west, stayed in habitat S of station 15. Stopped to listen. Followed hillside around ridge and back towards station 14. Took road up to 2018 AC, stopped to call, presented mouse 1720-1730. Searched habitat back up to ATV, called and listened at ATV 1810-1820. NPOW, cows. End search, NC.

Mousing Outcome

M1		M4	
M2		M5	
M3		M6	

Survey Types:

ACS Activity Center Search
 FUS Follow Up Search
 SV Status Visit

Weather codes:

CL Clear
 FG Fog
 PC Partly Cloudy
 OC Overcast
 DR Drizzle

Wind codes:

1 1-3 mph
 2 4-6 mph
 3 7-9 mph
 4 10-12 mph
 5 13-15 mph

Species Code:

Northern Spotted Owl
 Barred Owl
 Great-horned Owl
 Western Screech Owl
 Northern Pygmy Owl
 Northern Saw-whet Owl
 Flammulated Owl
 Barn Owl
 Long-eared Owl
 Great Gray Owl

Sex Codes:

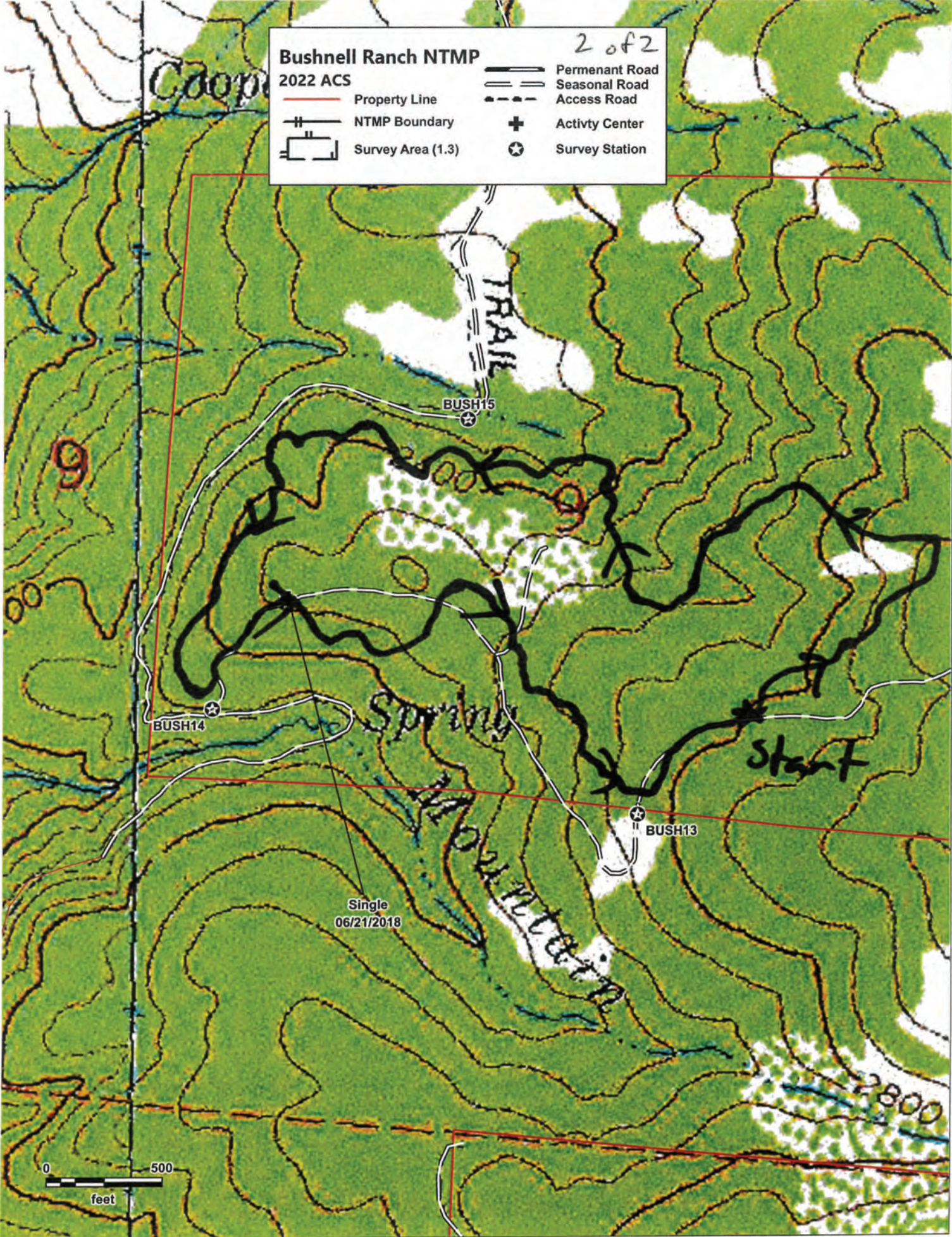
SPOW Male M
 BADO Female F
 GHOW Unknown U
 WESO Pair PR

NPOW
 NSOW
 FLOW
 BANO
 LEOW
 GGOW

Bushnell Ranch NTMP

2022 ACS

- Property Line
- NTMP Boundary
- Survey Area (1.3)
- Permanent Road
- Seasonal Road
- Access Road
- Activity Center
- Survey Station



Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 1

Visit Type: nc

Project Bushnell Ranch

Observer Ryan Farmer

Date 3/10/22

Weather/Wind/Temp /
cl/1/55

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
									Skipped 15, 14, & 13 for ACS
12	1825	1835	Nc						Grouse, frogs, cows
11	1839	1849	Nc						FLOW, creek, frogs, cows
10	1851	1901	Nc						Frogs, NSOW
9	1904	1914	Nc						FLOW, frog, cows
8	1916	1926	Nc						Quiet
6	1929	1939	Nc						Quiet
7	1941	1951	Nc						Frogs
5	1955	2005	Nc						FLOW, distant dogs
3	2011	2021	Nc						Creek, cow
2	2024	2034	Nc						Creek
1	2036	2046	Nc						Creek
16	2057	2107	Nc						Distant dogs, Flow
4	2114	2124	Nc						Quiet

*List all stations and note if skipped.

Survey Types:

Weather codes:

Wind codes:

Species Code:

SPOW

Sex Codes:

*FLOW = Flammulated owl
NSOW = N, saw-whet owl*

Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 2

Visit Type: nc

Project Bushnell Ranch		
Observer Ryan Farmer	Date 4/6/22	Weather/Wind/Temp cl/1-2/48

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
1	2045	2055	Nc						Creek, cows
2	2057	2107	Nc						Creek, frogs, cows
3	2109	2119	Nc						creek, frogs, cows
5	2128	2138	Nc						Frogs, FLOW
7	2142	2152	Nc						Quiet
6	2157	2207	Nc						Quiet
8	2209	2219	Nc						Cows
9	2223	2233	Nc						Frogs
10	2236	2246	Nc						Frogs
11	2250	2300	Nc						Frogs
12	2305	2315	Nc						NSOW
13	2321	2331	Nc						Cows
15	2337	2347	Nc						Distant dogs, FLOW
14	2350	0000	Nc						Creek
16	0006	0016	Nc						Creek
4	0019	0029	Nc						Cows

*List all stations and note if skipped.

Survey Types:

Weather codes:

Wind codes:

Species Code:

SPOW

Sex Codes:

*FLOW = Flammulated owl
NSOW = N. saw-whet owl*

Northern Spotted Owl Survey Form

Timberland Resource Consultants

Visit#: 3 Visit Type: NC

Project Bushnell Ranch		
Observer J. Henry	Date 04/15/2022	Weather/Wind/Temp OC / 0 / 40 F

Station	Start	End	SPOW CON/NC	CON Time	Species	Sex	Bearing	Distance	Notes
16	19:49	19:59	NC		-	-			Dogs, Cows
15	20:05	20:15	NC		-	-			loud creek, hooted 100' north
14	20:18	20:28	NC		-	-			heard Mtn Creek
13	20:39	20:49	NC		-	-			
12	20:54	21:04	NC		-	-			very Quiet
11	21:08	21:18	NC		-	-			
10	21:21	21:31	NC		-	-			tree frogs
09	21:34	21:44	NC		-	-			
08	21:47	21:57	NC		-	-			Light sprinkle
06	22:00	22:10	NC		-	-			
07	22:15	22:15	NC		-	-			
05	22:37	22:47	NC		-	-			
03	22:58	23:08	NC		-	-			
02	23:11	23:21	NC		-	-			
01	23:25	23:35	NC		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			
			-		-	-			

*List all stations and note if skipped.

- | | | | | |
|----------------------|-----------------------|--------------------|-----------------------|-------------------|
| Survey Types: | Weather codes: | Wind codes: | Species Code: | Sex Codes: |
| SC Spot Checks | CL Clear | 1 1-3 mph | Northern Spotted Owl | SPOW Male M |
| NC Night Calling | FG Fog | 2 4-5 mph | Barred Owl | BADO Female F |
| TS Transect Surveys | PC Partly Cloudy | 3 7-9 mph | Great-horned Owl | GHOW Unknown U |
| DC Day Calling | OC Overcast | 4 10-12 mph | Western Screech Owl | WESO Pair PR |
| | DR Drizzle | 5 13-15 mph | Northern Pygmy Owl | NPOW |
| | | | Northern Saw-whet Owl | NSOW |
| | | | Flammulated Owl | FLOW |
| | | | Barn Owl | BANO |
| | | | Long-eared Owl | LEOW |
| | | | Great Gray Owl | GGOW |

From: dleonard@timberlandresource.com
Sent: Friday, April 15, 2022 3:50 PM
To: Santa Rosa Review Team@CALFIRE
Subject: 1-20-00062-HUM minor
Attachments: 1-20-00062-HUM_2022 NSO data.pdf

Categories: Amendments

Warning: this message is from an external user and should be treated with caution.

Good afternoon,

Attached is the 2022 NSO survey data to be amended to the THP.

Thank you,

Jon Dylan Leonard

Registered Professional Forester #3107
Timberland Resource Consultants
165 S. Fortuna Blvd
Fortuna, CA 95540

o: 707-725-1897
c: 317-965-3198

RECEIVED
APR 15 2022
COAST AREA OFFICE
RESOURCE MANAGEMENT