5th ANNUAL REPORT

submitted to
The United States Fish and Wildlife Service
&
The California Department of Fish and Wildlife

by
Green Diamond Resource Company

in fulfillment of requirements specified in condition G. of permit # TE43702D-0, incidental take permit for northern spotted owls, under section 10(a)(1)(B) of the Endangered Species Act and the state consistency determination

27 February 2025

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I. Introduction

On June 13, 2019, the United States Fish and Wildlife Service (the 'Service') accepted Green Diamond Resource Company's Forest Habitat Conservation Plan (FHCP) for the Covered Species, Northern spotted owl, fisher, red and Sonoma tree voles, and issued Green Diamond a section 10(a)(1)(B) incidental take permit under the Endangered Species Act (ESA). The signing of the permit by the Service allowed Green Diamond to harvest habitat that could result in the incidental take of the Northern spotted owl and would authorize take of fisher and tree voles should they become listed under the ESA in the future. Incidental take of Northern spotted owl over the 50-year permit term is anticipated to result primarily from modification of owl habitat that could displace owls, i.e., causing them to move to new areas and impairing their essential behavioral patterns. On July 31, 2019, Green Diamond requested a Consistency Determination (CD) from the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code Section 2080.1 that CDFW determine that the Biological Opinion (BO) issued by the Service, including its Incidental Take Statement (ITS) and incidental Take Permit (ITP), is consistent with the California Endangered Species Act (CESA). On August 30, 2019, the CDFW determined that the BO, ITS, and the FHCP are consistent with CESA and issued a CD to Green Diamond.

The key elements of the FHCP include:

- Promoting habitat heterogeneity across the Green Diamond landscape including the adoption of the Aquatic Habitat Conservation Plan riparian and geological management measures
- Protecting the 44 most productive Northern spotted owl sites through the Dynamic Core Area (DCA) strategy where sites are managed on a 'no-take' basis and harvest is prohibited within the core area for the site.
- Retaining and recruiting habitat elements important to the Covered Species by implementing the Terrestrial Retention of Ecosystem Elements (TREE) guidelines within harvest units
- Providing protection for the Covered Species
- A 7,741-acre special management area ("Peripheral Area") where the Northern spotted owl would be managed on a "no-take" basis
- Research and monitoring commitments for the Covered Species
- Compliance monitoring and adaptive management

The following report documents the sixth year of implementing the FHCP and includes details specified to comply with the FHCP. Included are sections about Covered Species surveys, habitat retention in timber harvest plans, levels of take, amount of habitat for the Covered Species, studies for the Covered Species, conservation areas, and other information required for annual reports as described in the Implementation Commitments Section 5.3.7 of the FHCP.

The reporting period of this report is from Sept. 1, 2023 to Sept. 1, 2024.

II. Northern Spotted Owl Surveys

As noted in the FHCP, all stands of trees scheduled for timber harvest or areas of potential habitat that may be modified by Covered Activities, must be surveyed for spotted owls prior to operations. The following describes the survey procedures and the results of the surveys.

A. Methods

To protect nesting owls and their young from direct harm due to Covered Activities during the breeding season and to identify owl activity centers, all stands scheduled to be harvested or modified by Covered Activities in 2024 were surveyed for spotted owls during the breeding season, March 1 - August 31, 2024. All timber harvest plans (THPs) initiated between Sept. 1, 2023, and February 21, 2024, were surveyed in 2023 and those initiated after February 21, 2024, were surveyed in 2024, prior to start of operations. Second year surveys were conducted for THPs that had been surveyed the previous year.

1. FHCP protocol surveys

Spotted owl surveys were conducted by Green Diamond wildlife biologists, and, in some cases, by other employees meeting the following qualifications recommended for spotted owl surveyors by the U.S. Fish and Wildlife Service (Protocol for surveying proposed management activities that may impact northern spotted owls, revised January 9, 2012):

> Normal hearing abilities are requisite. An owl caller must be able to hear the owl(s) if they were calling AND
>
> • Have training in spotted owl survey techniques OR
>
> • Have 1 year/season of spotted owl survey experience

Green Diamond's THPs were often comprised of multiple units. The number of units surveyed was typically referenced regarding owl surveys because owl surveys were conducted on a unit-by-unit basis, and not all units surveyed were eventually incorporated into THPs.

The surveys provided coverage of each THP unit and at least a 0.5-mile buffer around the unit, with some calling points established at least 1000 feet from the plan boundary. The calling points were strategically placed to ensure complete coverage of the survey area. Each calling point was called for a minimum of 10 minutes unless an owl responded sooner. If an owl site was known to be occupied in any portion of the survey area, a maximum 0.5-mile radius around the owl site was not called to avoid harassing the owls. Daytime site visits of such sites were conducted to establish activity centers.

A statistical analysis of THP detections was conducted in 2012. The purpose of the analysis was to determine the number of THP surveys necessary to achieve a 95% detection probability of territorial spotted owls within approximately 0.5 miles of a harvest unit. This analysis utilized ownership specific THP survey data and site occupancy data. THP detection data collected from 1994-2011 were analyzed in conjunction with spotted owl site occupancy of each corresponding year. Results from the analysis indicated 4 to 6 surveys of each THP unit were necessary to achieve a 95% detection probability of a territorial owl. More surveys (up to 6) were needed in the earlier part of the breeding season to achieve 95% probability because the probability of detection increases throughout the season. Four surveys were needed later in the season to reach the same probability. To capture the variation in probability throughout the season, a calculator was formulated from the analysis. The calculator assigns a detection probability to each Julian date and was used to determine the number of surveys required to achieve a 95% probability of detection. Surveys were conducted until the cumulative probability of the surveys was greater than or equal to 0.95. In 2024, surveys were conducted for each unit until an owl was located or until the surveys required to achieve a 95% detection probability were completed.

Each survey for an individual THP unit was spaced at least one week apart. In areas where no owls were detected, at least one survey was conducted after April 1. In areas where resident owls were found, at least one follow-up visit was conducted after May 1 to determine that the owls were not nesting.

Historic spotted owl sites within the influence of barred owls received one stand search on or after June 1 to increase the probability of locating evidence of roost sites or elicit the begging calls of juvenile spotted owls.

Each survey response was followed up with a daytime visit by Green Diamond biologists to locate the owl and determine its pair status, activity center, or nest site. If three complete follow-up visits were conducted and an owl was not located, it was concluded that the initial response was from an owl that did not have an activity center in the THP area. If follow-up visits were successful in locating spotted owls early in the nesting season (March to early April), at least one follow-up visit was conducted after May 1 (if a nest site was not located). A 0.25-mile buffer was maintained around the owl pair's activity center until its nesting status was determined. If the pair was still not nesting by May 1, after a minimum of 3 visits, then the radius of protection was no longer maintained and the whole plan became available for timber falling.

If a nest was found, the nest tree was marked, and the THP was immediately available for harvest providing that no timber falling or yarding was allowed within a 0.25-mile radius of the nest tree until it was determined that the owlets had fledged or that the nest had failed. After the owlets fledged, the radius of protection was 500 feet from the owlets and connectivity to continuous habitat was maintained. When owlets dispersed or were capable of dispersing, or it was determined that the nest had failed, falling and yarding was allowed within the 500-foot radius buffer that was being maintained for the owlets.

To protect nesting owls from potential impacts of spring slash burns, Green Diamond biologists reviewed a list of THP units to be burned after March 1. If it was determined that the fire or smoke generated from a burn would likely disturb a nesting pair, then appropriate measures were taken to prevent the disturbance (canceling or postponing the burn).

Barred Owls

Because barred owls reduce the probability of detecting spotted owls, and as a result of increased barred owl presence within the Green Diamond study area, survey effort at spotted owl territories invaded by barred owls included measures to increase the likelihood that resident spotted owls were detected. If a site was influenced by barred owls, surveys were conducted until a spotted owl was detected or the surveys required to achieve a 95% detection probability (determined by Green Diamond's site visit detection probability calculator) were completed with at least one survey occurring on or after June 1st.

2. Additional spot calling and second year surveys

Sites identified in surveys conducted from March 1 - August 31 in 2023 were considered valid until February 21, 2024, and surveys conducted during the same period in 2024 were considered valid until February 21, 2025. However, timber harvest in some plans spanned two owl survey years. For example, several 2024 THP units were surveyed during the 2023 breeding season and were found to be free of owls. The plans were initiated before February 21, 2024, but harvest had not been completed by February 21, 2024. Although the likelihood of owls establishing a territory in such plans is considered low, it is possible. Depending on the status of the THP, it may have required additional calling. In addition, due to the scheduling of contractors, continuous timber falling within a THP unit often does not occur. Contractors temporarily stop falling in a unit and return later, or different contractors move in to the THP area and resume falling. As a result, small portions of a plan area can be felled, and a THP unit can remain virtually unharvested for an extended period until harvest resumes. Because this could occur near the owl-breeding season, a greater likelihood of owls moving into the area would exist than if continuous timber operations occurred in the THP unit. Finally, in many cases, low priority THP areas that are surveyed in one year are not harvested until the next year. If a given area was surveyed with the 95% detection probability protocol in 2023 and no timber was harvested before February 21, 2024 of the following year, a possibility existed that owls may have moved into the area. However, because the area was previously surveyed, the probability of new owls moving into the area was considered low.

To detect the possibility that owls moved into a THP unit under the circumstances described above, Green Diamond implemented the following spot calling procedures on February 21 of each year and second year protocol procedures on March 1 of each year:

- If more than 10 acres of contiguous timber remained in the unit and falling was not continuous, then timber harvest was temporarily deferred until a second year or detection probability survey was conducted. This second-year protocol consisted

of a minimum of four nighttime surveys spaced at least five days apart, with at least one survey on or after April 1.

- If more than 10 acres of contiguous timber remained in the unit, and falling was continuous from on or before February 21, timber harvest continued with spot calling. The spot calls were concurrent with operations and occurred once a week until less than 10 acres of contiguous timber remained, or for a maximum of five weeks.

- If less than 10 acres of contiguous timber remained in the unit, then harvest continued with no special provisions.

- If less than 10 acres of contiguous timber remained in the unit, and harvest was deferred until the following breeding season, a possibility existed that owls may have moved into the area. Therefore, before resuming cutting activity after March 1, a biologist conducted two nighttime surveys at least five days apart. If no owls were detected, operations commenced.

For spot calling, qualified employees called the remaining timber in the plan from one or several locations to ensure adequate coverage of the area. The calling was done, weather permitting, at least once a week until less than 10 acres of contiguous standing timber remained, or for a maximum of five weeks. The spot calling was concurrent with timber operations, i.e., conducted before or after actual falling activity on a given survey day.

If an owl was detected during one of the surveys, operations were stopped until Green Diamond biologists determined if an owl activity center existed. If an owl was found, timber falling was suspended within 0.25 mile of its activity center until it was determined that the owl was not nesting.

B. Survey Results

1. FHCP protocol surveys

One-hundred eight THPs comprised of 433 units (Appendix I) were surveyed for spotted owls in 2024. Of these THP units, 210 had been surveyed in the previous year. Spotted owl responses were heard during surveys of 32 THPs, and 30 plans required follow-up surveys. Thirty-six THPs surveyed during the reporting period had owl activity centers located within 0.5 mile. Fifty-nine unique owl sites were associated with these THPs. One new activity center was found within 0.5 mile of a THP unit that was previously surveyed, and two perennial activity centers moved within 0.5 mile of a previously surveyed THP.

A total of 211 THP units were initiated through timber falling or road construction during the reporting period. Timber operations were delayed on two THP units due to nesting pairs in 2024. In compliance with the FHCP protocol, if a pair was found to be nesting, operations were not conducted within 0.25 miles of the nest until it was determined that the owlets had fledged or the nest had failed. Once the owlet(s) fledged, no operations would be conducted within 500 feet of the owlet(s) until the owlet(s) dispersed or were capable of dispersing. Eight unoccupied spotted owl sites influenced by barred owls and located within 0.5 mile of a harvest unit where falling had been initiated between March 1 and August 31 of the current reporting period received a stand search on or after June 1. These eight spotted owl sites were associated with eight THPs and 13 unique harvest units. No slash burns were delayed due to the proximity of nesting spotted owls.

2. Additional spot calling and second year surveys

Thirty-eight THP units initiated before February 21, 2024 and having more than 10 contiguous acres remaining at that date were spot called for owls. There were zero spotted owl detections during these surveys.

C. Discussion

There were no instances where unknown spotted owl sites were found near initiated THPs that were protocol surveyed. The FHCP survey protocol appears to be effective in locating owl sites prior to harvest operations and ensuring that owl sites are not unknowingly harvested below displacement thresholds. Furthermore, about 48% of THP units were resurveyed during 2024. All known spotted owl sites influenced by barred owls and with planned harvest operations received additional survey effort to account for the lower detection rates for spotted owls when barred owls are present. Additional survey effort was provided through spot calling, which increases the probability that owls within the THPs will be detected prior to THP initiation. Resurveys, spot calling, and surveys in response to barred owl occupancy provide an increased level of survey effort prior to timber operations.

III. THP Conservation Measures

A. Methods

The Terrestrial Retention of Ecosystem Elements (TREE) guidelines described in the FHCP govern the spatial distribution, type, and amount of retained structures across the Plan Area. The TREE is focused on habitat areas and habitat elements that are essential to specific behaviors of the Covered Species as well as other vertebrate species that reside in the Plan Area. The TREE provides primary consideration for live trees, snags, and coarse woody debris that currently provide or are most likely to become critical habitat elements on the landscape. The concept of 'critical habitat element' refers to something that is relatively rare on a managed landscape, takes a long time to develop (greater than a single rotation), and is linked to some behavior (reproduction, foraging) of a vertebrate species in such a way that the loss of the habitat element would likely result in a substantial population reduction of the species on the landscape. The FHCP also includes Riparian Management Zone (RMZ) prescriptions and protection of geologically unstable areas beneficial to the Covered Species as a landscape management commitment to promote retention and development of late seral habitat in a dendritic network across the Plan Area. Although initially created through Green Diamond's Aquatic Habitat Conservation Plan (AHCP), these prescriptions are also incorporated as enforceable commitments of the FHCP. Prescriptions for RMZs and geologically unstable areas provide a substantial benefit to the Covered Species and encumber over 25% of the Plan Area through extremely limited or no timber harvest. The following summarizes site-specific habitat retention measures identified before and after timber harvest for each THP with completions during the reporting period.

1. Pre-harvest habitat retention planning

The major habitat management measures quantified were:

- habitat retention areas (HRAs) planned (number),
- habitat retained as a result of AHCP Riparian Management Zones (RMZ) and geologically unstable areas,
- retention of all non-merchantable downed coarse woody debris (CWD),
- retention of green wildlife trees outside of RMZs, (planned number of trees to be retained per acre individually, in HRAs, or in clumps),
- retention of Wildlife Scorecard Trees,
- snag retention (estimated number per acre present before and after harvest)

General guidelines for green wildlife tree retention are outlined below.

General Candidate Tree Selection:

- Retain defective or poorly formed trees (i.e., animal damaged, forked top, broken top, etc.).
- Retain a mix of conifers and hardwoods (approximately 50/50 mix where possible).
- Species preference: Douglas-fir, hemlock, white fir, cedar, spruce, redwood, tanoak, madrone, California laurel, chinquapin.
- Consider protection from wind throw and site preparation burning when designating HRA and tree clump locations.
- Retain trees with the average diameter equal to or greater than average diameter of trees in the THP unit.
- Green wildlife tree retention is in addition to snag, geological, and RMZ retention.

Tree Retention Guidelines

Conifer Dominated Harvest Areas with RMZ or Geological Retention:

- Retain all scorecard trees ≥ 7.
- Retain other evergreen hardwoods at a rate of two trees per clearcut acre where they exist

Conifer Dominated Harvest Areas without RMZ or Geological retention:

- Retain all scorecard trees ≥ 7.
- Retain other conifer at a minimum rate of one tree per clearcut acre.
- Retain other evergreen hardwoods at a rate of two trees per clearcut acre where they exist
- If unit lacks hardwoods (< 2 per acre) and is located within a tract considered impaired for wildlife (i.e., a tract requiring retention of at least two trees per clearcut acre “Two Trees Per Acre Tract”), then retain additional conifers to achieve total retention of two trees per acre.
- If the unit lacks hardwoods (< 2 per acre) and is not located within a tract considered impaired for wildlife (i.e., a tract requiring retention of at least one tree per clearcut acre “One Tree Per Acre Tract”), then no additional conifer retention is required above the minimum one conifer per clearcut acre

Hardwood Dominated Harvest Areas with RMZ or Geological Retention:

- Retain all scorecard trees ≥ 7.
- Retain evergreen hardwoods at a rate of two trees per clearcut acre.

Hardwood Dominated Harvest Areas without RMZ or Geological Retention:

- Retain all scorecard trees ≥ 7.
- Retain a minimum 0.5-acre HRA or clumps totaling 0.5 acres and additional scattered evergreen hardwood trees at a rate of two trees per clearcut acre.

2. Post-harvest habitat retention

Post-harvest completion data were collected for harvested units that received company harvest plan completions during the reporting period or for plans in which logging activity had terminated. For plan completions, the number of green wildlife trees retained was estimated as the number of remaining trees > 12" dbh per acre. If the THP was to be burned for site preparation, the completion data was also collected after the plan was burned. It was noted for each completion whether site preparation, burning, windthrow or some other form of forest management damaged the retained habitat features.

3. Commercial Thinning

Commercial thinning involves removing selected trees that may contain commercial value in order to create additional growing space for crop trees. Commercial thinning on Green Diamond's forest lands is typically an intermediate treatment applied to younger stands that allows for the release of the selected crop trees by providing more light, and in some cases, more nutrients and soil moisture when they are limiting factors. The log size of these younger thinned stands is inherently smaller than those of an older stand ready for the final harvest stage of even-aged management (i.e., clearcut harvest). The protection measures and mitigations included in a final clearcut harvest, such as TREE, also apply to these intermediate thinning harvests. Given the goal of thinning harvests and the amount of post-harvest habitat retention associated with this type of silviculture, habitat for the Covered Species is at a minimum maintained, but this type of harvest should advance the development of habitat. Therefore, these units meet or exceed post-harvest habitat retention standards of the FHCP and are excluded from the pre-harvest and post-harvest retention summaries in the annual report.

B. Results

Sixty-eight THPs comprised of 176 clearcut harvest units (3,831.86 total clearcut acres) and 21 commercially thinned harvest units (1147.0 total acres) approved after June 13, 2019, received company completions during the reporting period. The completed units ranged in size from 9.19 acres to 65.95 acres with an average of 30.11 acres. As described above, the 21 commercially thinned units were not included in the pre-harvest or post-harvest retention summaries (for clearcut harvest unit retention details see Appendix II).

1. Pre-harvest conservation measures

Of the 176 clearcut harvest units, 174 were conifer dominated and 170 of these had retention in RMZs or geologically unstable areas requiring no additional green tree retention beyond two hardwoods per clearcut acre where they existed. The average green trees per acre prescribed for the 170 conifer dominated units with RMZ or

geological retention was 2.49 per clearcut acre (Table 1). All four units without RMZ or geological retention were in 'two trees per acre (TPA) tracts' and prescribed an average of 2.00 green trees per clearcut acre. The only two hardwood dominated units had RMZ or geological retention and prescribed an average of 6.8 green trees per clearcut acre. Twenty-five of the 176 units prescribed a total of 35 HRAs. The average number of snags prior to harvest was estimated to be 0.33 per clearcut acre. The average number of wildlife scorecard trees (scorecard trees) was 0.65 per clearcut acre (Table 2).

Table 1. Summary of planned pre-harvest THP green tree retention for completed THP units (n=176 Units).

	Conifer Dominated			Hardwood Dominated	
	GT/acre* with RMZ/GEO	GT/acre without RMZ/GEO (2 TPA tract)	GT/acre without RMZ/GEO (1 TPA tract)	GT/acre with RMZ/GEO	GT/acre without RMZ/GEO
Minimum	0.00	2.00	NA	4.00	NA
Maximum	15.00	2.00	NA	9.60	NA
Average	2.49	2.00	NA	6.80	NA

*all acres are clearcut acres
GT = green tree
RMZ = riparian management zone
GEO = geologically unstable area
TPA = tree per acre
NA = not applicable

Table 2. Summary of planned pre-harvest THP conservation measures for completed THP units (n = 176 Units)

	Snags/acre*	Scorecard Trees (#)	Scorecard Trees/acre
Minimum	0.00	0.00	0.00
Maximum	2.00	133	4.32
Average	0.33	14.20	0.65

*All acres are clearcut acres
THP = timber harvest plan

2. Post-harvest habitat retention

The 170 conifer dominated units with RMZ or geological retention retained an average of 2.93 green trees per clearcut acre (Table 3). Among the four conifer dominated units without RMZ or geological retention, all units met the minimum green tree retention requirements. All four conifer dominated units without RMZ or geographic retention that were located within two TPA tracts retained at least two green trees per clearcut acre with an average of 2.00 per clearcut acre. The two hardwood dominated units had RMZ or geological retention and exceeded the minimum retention requirements with an average of 6.8 green trees retained per clearcut acre. Among the total 176 units, an average of 0.62 wildlife scorecard trees per clearcut acre was retained. Twenty-five units retained a total of 35 HRAs. An average of 0.30 snags per acre and an average of 1.73 pieces of coarse woody debris per clearcut acre were retained post-harvest (Table 4).

Within the 176 units, 1197.28 acres (31.25%) were retained in RMZs or geologically unstable areas with an average of 6.80 acres per unit. Harvest within class I and II RMZs during the reporting period represented the first and only entry allowed during the life of the Aquatic Habitat Conservation Plan and FHCP.

Table 3. Summary of post-harvest THP green tree retention for completed THP units (n=176 Units).

	Conifer Dominated			Hardwood Dominated	
	GT/acre* with RMZ/GEO	GT/acre without RMZ/GEO (2 TPA tract)	GT/acre without RMZ/GEO (1 TPA tract)	GT/acre with RMZ/GEO	GT/acre without RMZ/GEO
Minimum	0.00	2.00	NA	4.00	NA
Maximum	20	2.00	NA	9.60	NA
Average	2.93	2.00	NA	6.80	NA

*All acres are clearcut acres
GT = green tree
RMZ = riparian management zone
GEO = geologically unstable area
TPA = tree per acre
NA = not applicable

Table 4. Summary of post-harvest THP conservation measures for completed THP units (n=176 Units)

	Snags/acre*	Scorecard Trees (#)	Scorecard Trees/acre	LWD/acre
Minimum	0.00	0	0.00	0.00
Maximum	2.00	99	3.65	12.00
Average	0.30	13.51	0.62	1.73

*all acres are clearcut acres
HRA = habitat retention area
LWD = Large woody debris
THP = timber harvest plan

3. Comparison of pre- and post-harvest wildlife retention measures

The prescribed pre-harvest and post-harvest data were compared for the 176 THP units that were completed during the reporting period (Table 5 and Table 6). In some cases, additional tree clumps were retained to comply with the Forest Stewardship Council (FSC) standards. This additional retention was not counted towards green tree or HRA tallies unless it satisfied green tree or HRA criteria.

Post-harvest retention of green trees was equal to or greater than pre-harvest prescriptions during the reporting period. At times, trees were left for unanticipated reasons and as long as they satisfied the criteria for a green tree, they were counted as additional trees in the post-harvest evaluation which can result in an increase in green trees post-harvest. Additional marking of trees prior to operations may also occur. These trees are counted post-harvest because they were marked, however, they were not reported on during pre-harvest because they had not been marked or recorded on the pre-harvest form. Average post-harvest retention of wildlife scorecard trees was slightly less than pre-harvest prescriptions due to tree loss resulting from a combination of operational and safety constraints and windthrow. The post-harvest estimate of retained snags was slightly less than the pre-harvest estimate. Discrepancies between estimates of pre- and post-harvest snags are common. Since snags are not marked and tallied individually, inaccurate ocular estimates are often made on the number per acre, particularly during the pre-harvest phase when they are less obvious in the unharvested stand.

Table 5. Comparisons of pre- and post-harvest green tree retention for THP units (n=176 Units).

	Conifer Dominated						Hardwood Dominated	
	Pre GT/acre* with RMZ/ GEO	Post GT/acre with RMZ/ GEO	Pre GT/acre without RMZ/ GEO (2 TPA)	Post GT/acre without RMZ/ GEO (2 TPA)	Pre GT/acre without RMZ/ GEO (1 TPA)	Post GT/acre without RMZ/ GEO (1 TPA)	Pre GT/acre with RMZ/GEO	Post GT/acre with RMZ/GEO
Average	2.49	2.93	2.00	2.00	NA	NA	6.80	6.80
Average change/unit	0.44		0.00		NA		0.00	

*All acres are clearcut acres
THP = timber harvest plan
GT = green tree
GEO = geologically unstable area
RMZ = riparian management zone
NA = not applicable

Table 6. Comparisons of pre- and post-harvest conservation measures for THP units (n = 176 Units).

	Pre Snag/ acre*	Post Snag/ acre	Pre Scorecard Trees (#)	Post Scorecard Trees (#)	Pre Scorecard Trees/acre	Post Scorecard Trees/acre
Average	0.33	0.30	14.20	13.51	0.65	0.62
Average change/unit	-0.03		-0.69		-0.03	

*All acres are clearcut acres
THP = timber harvest plan
HRA = habitat retention area

C. Discussion

FHCP retention measures were implemented in compliance with the FHCP. Average post-habitat retention was equal to or greater than pre-harvest prescriptions for all but 36 units that experienced a loss in wildlife scorecard trees due to a combination of operational and safety constraints, road construction, and windthrow. Prior to becoming FSC certified, Green Diamond worked to minimize tree loss from wind throw by planning the retention of fewer wildlife tree groups or clusters and instead designated more HRAs and larger RMZs. Subsequent retention efforts have placed more emphasis on scattered and clumped tree retention throughout the units. However, planned individual tree or clump retention is placed in a topographic location that will minimize wind throw where possible while still meeting FSC standards. Individual wind firm trees from the original stand can often be more successfully retained than second growth. RPFs noted the additional incidental retention of scattered and clumped sub merchantable trees. These habitat features are not quantified in this report. In many instances, this incidental structure is likely to add another element of structural diversity to future forest stands.

The greatest amount of habitat retention in THPs occurred in RMZs and geologically unstable areas. Because Class I or II watercourses are given canopy retention that exceeds the standard Forest Practice Rules, this represents a significant amount of retention for future wildlife habitat. Because owls and fishers often occupy areas near streams lower on the slope, these areas are anticipated to provide excellent future core habitat for owls and fishers.

IV. Habitat for the Covered Species

A major premise of the FHCP is that habitat suitable for the Covered Species would increase throughout the life of the plan. Prior to model development and validation, habitat will be quantified by categorizing Green Diamond's land base into age classes according to their value to the Covered Species. The distribution of acres in each of the age classes changes through time as stands age and enter older age classes and as stands are harvested and enter the younger age classes. Another factor that could affect this distribution is land acquisition and disposal.

It should be noted that land exchanges, harvest, and growth of stands are not the only factors that affect age-class distribution. Other factors, such as improved cruise data, can also cause changes. However, given the extent of the ownership, the acreage involved should be insignificant.

A. Methods

1. Overall habitat

For tree voles, suitable habitat was defined in terms of suitable nesting habitat defined as stands 20 years or older with at least 20% basal area of Douglas-fir. The acreage of the following age classes, categorized according to their value to spotted owls and fishers, was also quantified.

Age in years	Importance to spotted owls and fishers
0-7	Recently regenerated stands, no direct value to owls or fishers
8-30	Potential foraging and woodrat habitat
31-45	Foraging, roosting/resting, and occasional nesting/denning habitat
46+	Prime nesting/denning and roosting/resting habitat and also foraging habitat
NF	Non-forested land, no direct value to owls or fishers

These acreages were estimated using GIS and falling initiation dates to determine the change in total habitat, i.e., change in acreage of stands greater than 30 years old for spotted owls and fishers. If falling was initiated, then it was assumed that the entire harvest unit was felled even if portions of the unit were harvested during a different reporting period or portions of the unit were retained. Therefore, utilizing falling initiation dates overestimates the acres harvested but allows for a more accurate assessment of the

potential for displacement of an owl or fisher. Additionally, the change in habitat composition between January 1, 2024 and January 1, 2025 was reported to provide an objective measure for comparison. Although this does not coincide with the dates of the reporting period, it more accurately reflects habitat changes from one year to the next.

For tree voles, acreages were estimated using harvest depletion data to determine the change in the proportion of nesting habitat, i.e., change in the proportion of stands 20 years or older with at least 20% basal area of Douglas-fir. Harvest depletion data are derived from post-harvest aerial imagery that accounts for retention acres in addition to acres removed. The depletion data allows for a more accurate measure of the changes in the proportion of vole habitat from one year to the next (growth and harvest) and follows the methods described in Chapter V for this Covered Species. The harvest depletion data is available at the end of each calendar year, and analyses are conducted over several months. Therefore, the change in proportion of habitat between January 1, 2023 and January 1, 2024 was reported. Although this does not coincide with the dates of the reporting period or the dates utilized for owls and fishers, it more accurately reflects changes in the proportion of nesting habitat for tree voles from one year to the next.

2. Land acquisition and disposal

Land transactions were summarized based on the type of transaction and the total number of acres acquired or disposed January 1, 2024 – January 1, 2025. Since land transactions may affect age-class distributions important to the Covered Species, the change in total habitat (stands greater than 30 years old for spotted owls and fishers and stands 20 years or older with at least 20% basal area of Douglas-fir for tree voles) as a result of land transactions was also quantified.

B. Results

1. Overall habitat

Table 7 summarizes the change in age class distribution for owls and fishers between January 1, 2024 and January 1, 2025. A total of 240,727 acres of potential spotted owl and fisher habitat was estimated to occur within the Plan Area. The total amount of habitat (≥31 years) within the Plan Area increased by approximately 4,215 acres after accounting for land exchanges, harvest, growth, or reclassification of forest into different age classes (Figure 1). The amount of 31-45 age class decreased by 2,204 acres, and the amount of 46+ age class increased by 6,419 acres.

Table 8 summarizes the change in the proportion of vole nesting habitat between January 1, 2023 and January 1, 2024. The proportion of vole nesting habitat within the Plan Area as of January 1, 2023 was 53.6%, and the overall change in vole nesting habitat during the current reporting period was 2.9% (i.e., an increase in overall vole nesting habitat).

Table 7. Acreage of Green Diamond timberlands within the Plan Area by age or habitat class for owls and fishers at beginning and end of the FHCP reporting period based on acreage as of Jan. 1, 2024 and Jan. 1, 2025 after accounting for land transactions, harvest, growth, and reclassification of forest into other age classes.

Age or Habitat Class	Acres as of Jan. 1, 2024	Acres as of Jan. 1, 2025	Change in Acreage
Non-forest	5,260	5,151	-109
0-7 yrs	36,307	35,767	-540
8-30 yrs	77,839	78,637	798
31-45 yrs	74,929	72,725	-2,204
46+ yrs	161,583	168,002	6,419
Total	355,918	360,282	4,364

Table 8. The change in the proportion of vole nesting habitat within the Plan Area between January 1, 2023 and January 1, 2024.

Proportion of Nesting Habitat as of Jan. 1, 2023	Proportion of Nesting habitat as of Jan. 1, 2024	Change in proportion of Nesting habitat
53.6%	56.5%	2.9%

2. Land acquisition and disposal

Sixteen acres of potential owl and fisher habitat and zero acres of potential vole nesting habitat were acquired in the permit area between January 1, 2024 and January 1, 2025. A total of 410 acres of potential owl and fisher habitat were removed from the permit area for a net decrease of 394 acres of spotted owl and fisher habitat. A total of 265 acres of potential vole nesting habitat was removed from the permit area for a net decrease of 265 acres of vole nesting habitat.

No land transactions occurred within the Peripheral Area during the reporting period. However, harvesting rights were extinguished (expired) for approximately 410.02 acres within the Peripheral Area.

Figure 1. Change in spotted owl and fisher habitat (stands > 30 years old) on Green Diamond Resource Company lands since approval of the FHCP.

C. Discussion

The results of the habitat analysis for this annual report showed a slight overall increase in the total amount of habitat for spotted owls and fishers, indicating that growth of timber stands into owl and fisher habitat or habitat gained through land acquisitions exceeded timber harvest or habitat lost through land disposals. Typically, land exchanges are relatively small acreages; however, one large disposal totaling 598 acres occurred during the current reporting period. One small acquisition occurred during the current reporting period. The change in the proportion of vole nesting habitat within the Plan Area for this annual report did not exceed the projected average.

V. Take

The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct (16 U.S.C. section 1532(19)). Harm in the definition of take means an act which actually kills or injures wildlife. This may include significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Although Green Diamond's incidental take permit covers all take of the Covered Species incidental to timber harvest operations, the primary form of incidental take anticipated in the FHCP is the displacement of the Covered Species due to habitat modification. However, it was recognized that such displacement could impair essential behavioral patterns and result in actual death or injury.

A. Northern spotted owl

1. Methods

a. Displacement (take) evaluation

An assessment of potential displacement (take) was conducted for sites when timber harvest or other Covered Activities resulted in one or more of the following conditions:

- Suitable nesting, roosting or foraging habitat was removed or destroyed within a 500-foot radius of a spotted owl site center (direct displacement)
- Less than 89 acres of stands 46 years and older remained post-harvest within a 0.5-mile radius of a spotted owl site (indirect displacement)
- Less than 233 acres of stands 31 years and older remained post-harvest within a 0.5-mile radius of a spotted owl site center (indirect displacement)
- Timber harvest within a 0.5-mile radius of a spotted owl site that was already below thresholds or that reduced habitat below thresholds (<89 acres of stands 46 years and older or < 233 acres of stands 31 years and older) post-harvest (indirect displacement)

If any of the above conditions occurred, a potential displacement occurred, and monitoring was triggered. A confirmed displacement was based on the post-harvest demographic performance of spotted owls within the home range where harvest (or other Covered Activities) triggered the assessment of potential displacement. The performance criteria are described below under 'Displacement monitoring and accounting'. Displacement associated with a particular owl site in a home range occurred only once, unless the site was designated as vacant and later recolonized. Additionally, individual owls could be subjected to potential displacement if they occupied different sites (different home ranges) where harvesting triggered a report of

potential displacement. In other words, an individual owl may occupy one or more sites potentially affected by Covered Activities that trigger a displacement.

Each THP initiated (trees harvested) during the reporting period was evaluated to determine if it was located within 500 feet or 0.5 mile of an owl's activity center. If so, a GIS exercise was conducted to determine the amount of habitat harvested around the owl sites. Circles with radii of 500 feet (18 acres) and 0.5 mile (502 acres) were centered on owl sites affected by timber harvest. The amount of habitat within each of these circles was determined for both before and after harvest. In most cases, the amount of habitat harvested was based on the total acreage of THPs that had been initiated during the reporting period, whether or not harvest of the plans had been completed. However, multi-unit THPs were an exception to this. For these plans, certain individual units may have been deferred from harvest to avoid a potential owl displacement or for other operational reasons. Thus, for determining decrease in owl habitat, it was appropriate to evaluate harvest of THPs on a unit-by-unit basis to better document the timing of habitat loss.

The results of the stand age distribution for the owl circles determined by the GIS were verified by examining aerial imagery and light detection and ranging (LiDAR) imagery. If stand ages were not quantified in the GIS, then stand age typing was based on aerial and LiDAR imagery interpretation. Imagery typing was done primarily for owl site circles that encompassed land outside of Green Diamond's ownership. In some cases, the exact age of the stand could not be discerned by examining the imagery so that habitat was classified into "habitat" (suitable roosting and nesting) and "non-habitat" categories.

b. Displacement monitoring and accounting

The displacement accounting period was based on the date of approval for the FHCP (June 13, 2019). Therefore, the displacement accounting period started on June 13 of the previous reporting year and ended on June 12 of the current reporting year. The number of potential displacements allocated for a given accounting period was based on the total number of active spotted owl sites at the end of the previous breeding season. Unused potential displacements were held in reserve and may be used in subsequent years so long as the total number of potential displacements is no more than twice the number of allocated potential displacements for the accounting period for which the potential displacement(s) was triggered. For example, if the number of allocated potential displacements in year X was 3, then a maximum of 6 potential displacements could be triggered in year X even if the number in reserve was greater.

Displacement (take) was designated based on the post-harvest demographic performance of spotted owls within the home range where harvest (or other Covered Activities) triggered the potential displacement assessment. The performance criteria were based upon occupancy and/or reproduction of any spotted owls at a site. The final displacement determination could occur beginning at the third and ending at the fifth

breeding season following the last harvest that triggered the assessment. The following criteria were used for concluding that displacement (take) did not occur:

- in third breeding season following trigger of potential displacement:
  - owls nested (whether successful or not) in at least 2 years **or**
  - owls nested in 1 year with 2 years occupancy (at least 1 year of pair occupancy for sites with pair occupancy prior to timber harvest or a single owl at sites without pairs)
- in fourth breeding season following trigger of potential displacement:
  - owls nested in at least 2 years or
  - owl(s) occupied the site for four years (at least two years of pair occupancy for sites with pair occupancy prior to timber harvest or a single owl at sites without pairs)
- in fifth breeding season following trigger of potential displacement:
  - owl(s) occupied the site four out of five years (at least two years of pair occupancy for sites with pair occupancy prior to timber harvest or a single owl at sites without pairs)

The status of owls at sites being monitored for potential displacement was assessed by noting the 2024 location and behavior of the owls. All owl sites for which a report of potential displacement was triggered during this reporting period will be monitored in future breeding seasons to determine if displacement (take) has occurred. If the above criteria cannot be met, the site was considered to have been taken (owl or owls displaced) and recorded for the initial year in which the timber harvest triggered the potential displacement.

c. Projected potential displacement

The displacement accounting period was based on the approval date of the FHCP and was based on the number of active spotted owl sites in the previous breeding season. The initial displacement accounting period was June 13, 2019 through June 12, 2020 and the amount of allocated potential displacements (number of potential takes available) was based on the number of active spotted owl sites at the end of the 2018 breeding season. Likewise, the 2024-2025 displacement accounting period was based on the number of active spotted owl sites at the end of the 2023 breeding season.

1) Outcome of 2023-2024 projected potential displacements

The number and type (direct or indirect) of potential displacement projected in the last reporting period were compared to the actual numbers in this reporting period.

2) Projected 2024-2025 potential displacements

The results of the owl surveys (section II.B.1.) in conjunction with planned THP locations were used to estimate the type and location of potential displacements for the next reporting period.

2. Results

a. Displacement evaluation

Twenty-seven sites that had potential for direct or indirect displacement were evaluated during the reporting period (Table 9). Harvest initiated in the reporting period resulted in reports of one potential direct displacement (Table 9).

Table 9. Acres of age and habitat classes within 0.5-mile radius circles (502 acres) centered on owl sites potentially impacted by timber harvest. Bold indicates potential displacement sites for the current reporting period. “DCA” or “AMDCA” indicates a site was associated with a Dynamic Core Area or Adaptive Management Core Area, respectively. Asterisks indicate potential direct displacement sites and “previous” indicates a potential displacement was triggered in a previous reporting period and often at a different activity center.

Owl site	Site year	Buffer distance (ft)	31-45 yrs. before	31-45 yrs. after	46+ yrs. before	46+ yrs. after	Total acres owl habitat before	Total acres owl habitat after
Aldo Dusi	2023	500	0.00	0.00	16.70	16.70	16.70	16.70
		2640	56.82	20.65	336.88	336.88	393.70	357.53
B.C. Powerline	2024	500	0.00	0.00	17.98	17.98	17.98	17.98
		2640	0.00	0.00	315.20	285.43	315.20	285.43
Boulder Creek #1	2024	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	29.44	29.44	470.11	431.52	499.55	460.96
Boulder Creek #2 (DCA)	2024	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	21.30	21.30	412.58	409.94	433.89	431.24
Cal Barrel	2023	500	0.00	0.00	17.08	17.08	17.08	17.08
		2640	86.45	86.45	231.76	218.33	318.21	304.78
Cal Barrel Washout (DCA)	2024	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	76.87	76.87	337.86	328.86	414.73	405.73
Camp Gate	2024	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	0.00	0.00	479.29	402.67	479.29	402.67
Camp Gate North (DCA)	2024	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	37.45	37.45	407.55	400.79	445.00	438.24
Canyon Creek #1 (DCA)	2024	500	0.00	0.00	17.79	17.79	17.79	17.79
		2640	0.00	0.00	324.79	259.10	324.79	259.10
Copper Creek	2023	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	41.17	3.82	414.43	409.67	455.60	413.49
D100	2023	500	0.00	0.00	15.37	15.37	15.37	15.37
		2640	185.99	185.98	239.40	223.39	425.39	409.37
Denman Creek	2023	500	0.00	0.00	18.03	18.03	18.03	18.03
		2640	16.34	16.34	267.29	232.76	283.64	249.10
Dominie Winchuck	2024	500	0.00	0.00	7.58	7.58	7.58	7.58
		2640	0.00	0.00	279.02	273.97	279.02	273.97

Owl site	Site year	Buffer distance (ft)	31-45 yrs. before	31-45 yrs. after	46+ yrs. before	46+ yrs. after	Total acres owl habitat before	Total acres owl habitat after
EBF (DCA)	2024	500 2640	0.00 104.33	0.00 104.33	18.03 257.32	18.03 252.04	18.03 361.66	18.03 356.37
Freeman	2023	500 2640	0.00 130.94	0.00 130.94	16.24 237.38	16.24 211.04	16.24 368.32	16.24 341.98
HRC 372 (previous)	2024	500 2640	1.12 135.32	1.12 135.32	16.91 297.52	10.06 251.61	18.03 432.84	11.18 386.93
Hunter 240	2023	500 2640	0.00 197.87	0.00 185.61	18.03 299.46	18.03 299.46	18.03 497.33	18.03 485.07
Hunter CF	2021	500 2640	0.28 163.04	0.28 163.04	17.75 334.10	17.75 309.43	18.03 497.13	18.03 472.47
Jurin (DCA)	2024	500 2640	0.00 0.00	0.00 0.00	17.78 337.44	17.78 307.75	17.78 337.44	17.78 307.75
Little Deer Creek	2024	500 2640	0.00 154.13	0.00 136.52	18.03 236.73	18.03 184.90	18.03 390.86	18.03 321.42
Mule Creek	2024	500 2640	0.00 9.24	0.00 9.24	18.03 302.00	18.03 236.66	18.03 311.23	18.03 245.90
Peacock Creek	2023	500 2640	2.97 110.64	2.97 110.64	15.04 376.35	15.04 336.08	18.01 486.99	18.01 446.72
R1400	2023	500 2640	0.00 0.00	0.00 0.00	9.88 242.93	9.88 242.93	9.88 242.93	9.88 242.90
SF Bald Mt. Creek	2023	500 2640	0.00 10.38	0.00 10.38	18.03 431.82	18.03 403.66	18.03 442.20	18.03 414.04
Simpson Creek*	2024	500 2640	0.00 106.50	0.00 106.50	17.31 191.24	5.98 172.89	17.31 297.73	5.98 279.39
Tilley Slide	2024	500 2640	0.27 177.16	0.27 177.16	12.08 228.00	12.08 227.96	12.34 405.16	12.35 405.12
Upper Mynot Creek	2023	500 2640	2.11 271.36	2.11 270.21	15.92 195.01	15.92 170.18	18.03 466.37	18.03 440.39

1) Activity at owl sites where harvest initiated a potential displacement

Simpson Creek (HUM0213)
This site was associated with Green Diamond THP #24-1901 (State ID #1-20-00019HUM) Unit D. The following is a summary of the owls' known activity within the reporting period.

Date	Activity/Response
8/15/2024	Falling initiated causing potential direct displacement.
3/20/2024	THP survey, no detection
4/4/2024	Site visit, no detection
4/9/2024	THP survey, no detection
4/20/2024	Site visit, no detection
5/8/2024	Night call survey, no detection
5/10/2024	Site visit and THP survey, male spotted owl detected
7/10/2024	Site visit, no detection
7/23/2024	THP survey, no detection

b. Displacement monitoring and accounting

During the 2023-2024 displacement accounting period, four potential displacements were allocated, one potential displacement was triggered, and three were reserved. During the 2024-2025 accounting period, four potential displacements were allocated. Through the end of the current reporting period, one of the four allocated potential displacements was triggered; therefore, three were reserved. Table 10 summarizes the allocated and reserved potential displacements for each accounting period. Seven sites were available to evaluate for confirmed displacements because at least three breeding seasons had passed after harvest triggering potential displacement. Table 11 summarizes potential and confirmed displacements since implementation of the FHCP. Table 12 summarizes the occupancy and nesting status of potential displacement sites in breeding seasons after those in which the report of potential displacement was triggered. Five sites were added to the confirmed displacement total during the 2024 reporting period. Two sites were confirmed non-displacements; therefore, two potential takes were recovered and added back to the total potential take allotment.

Table 10. Summary of allocated and reserved potential displacements by accounting period since implementation of the FHCP.

Accounting Period	Total # of Active Sites in Previous Breeding Season	Allocated Potential Displacements	Triggered Potential Displacements	Reserved Potential Displacements	Recovered Potential Displacements	Total Available Potential Displacements
2019-2020	152	5	2	3	0	3
2020-2021	136	4	4	0	0	3
2021-2022	134	4	6	0	2	3
2022-2023	133	4	1	3	0	6
2023-2024	131	4	1	3	0	9
2024-2025*	122	4	1	3	0	12

*Displacement accounting information reported through the end of the annual reporting period (June 13, 2024 – September 1, 2025)

Table 11. Summary of spotted owl sites potentially displaced since implementation of the FHCP, including potential displacements reported for the current reporting period (accounting periods June 13, 2023- June 12, 2024 and June 13, 2024 – September 1, 2024). Bold indicates potential direct displacement and underline indicates a designation of displacement (confirmed displacement). An asterisk indicates a site where a displacement (take) did not occur based on the site status through the current reporting period.

Year					
2019	2020	2021	2022	2023	2024
Windy Point	**Pollnow Peak**	Upper Maple B.L.	Middle Stevens Creek*	Mather #1	**Simpson Creek**
	McCloud Creek	Guptil Gulch	Salmon Creek #4	Lower McCloud Creek	
	HRC 372	PL3	Stevens Creek East		
	Clear Creek		Upper Stevens Creek*		
Potential Displacements					
1	4	3	4	2	1
Cumulative Potential Displacements					
1	5	8	12	14	15
Confirmed Displacements					
1	4	3	1	0	0
Confirmed Non-Displacements					
0	0	0	2	0	0
Cumulative Confirmed Displacements					
1	5	8	9	9	9
Cumulative Confirmed Non-Displacements					
0	0	0	2	2	2
Cumulative Net Potential Displacements					
0	0	0	1	3	4

Table 12. Spotted owl habitat (≥31 years of age), occupancy, and reproductive status at potentially displaced sites. Bold indicates potential direct displacement and shading indicates a confirmed displacement. An asterisk indicates that a displacement (take) did not occur based on the site status through the current reporting period, and the site will be removed from this table in future reports.

Site	displ. year	Habitat within ½ mile	Status prior to displ.	Status 1 year after	Status 2 years after	Status 3 years after	Status 4 years after	Status 5 years after	Status 6 years after	Status 7 years after	Status 8 years after
Windy Point	2019	169.9	Single, unk.	Non-nesting male	UO	UO	Vacant	Vacant			
Pollnow Peak	2020	185.9	UO	Vacant	Vacant	Vacant	Vacant	Vacant			
McCloud Creek	2020	214.5	Non-nesting pair	Female, unk.	Single Male	UO	UO				
HRC 372	2020	225.5	UO	UO	UO	UO	UO				
Clear Creek	2020	202.3	UO	UO	UO	UO	UO				
Upper Maple B.L.	2021	150	Single, unk.	UO	UO	Vacant					
Guptil Gulch	2021	212.3	UO	UO	UO	UO					
PL3	2021	194.3	UO	UO	UO	UO					
Middle Stevens Creek*	2021	149.2	Non-nesting pair	Nesting Pair	Pair, not reproductive	Pair, unk.					
Salmon Creek #4	2021	112.7	Single, unk.	Pair, not reproductive	Pair, unk.	UO					
Stevens Creek East	2021	172.1	UO	UO	Vacant	Vacant					
Upper Stevens Creek*	2021	144.7	Pair, unk.	Nesting Pair	Pair, not reproductive	Nesting Pair					
Mather #1	2022	224.3	UO	UO	UO						
Lower McCloud Creek	2023	246.0	UO	UO	UO						
Simpson Creek	2024	279.74	Single, unk.								

Explanation of abbreviations: displ. = displacement; unk. = reproductive status unknown or unconfirmed; UO = unoccupied

1) Summary of potential displacement monitoring and accounting by year.

Potential displacement based on year 2019

Windy Point (indirect)
HUM0746
Harvest in September of 2019 initiated a potential indirect displacement. A single spotted owl of unknown gender and unknown paired status occupied this site in 2019 prior to potential displacement. This site was occupied by a single male in 2020, unoccupied in 2021 and 2022, and considered vacant in 2023 and 2024. This site has qualified for a final displacement evaluation and has been added to the displacement totals.

Potential displacement based on year 2020

Pollnow Peak (direct)
HUM1112
Harvest in January of 2020 initiated a potential direct displacement. This site was unoccupied prior to potential displacement, remained unoccupied through 2024, and this site is considered to be vacant. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

McCloud Creek (indirect)
HUM0307
Harvest in June of 2020 initiated a potential indirect displacement. This site was occupied by a non-nesting pair in 2019 prior to the potential displacement. The site was occupied by a non-nesting pair in 2020, a female with unknown paired status in 2021, a single male in 2022, and unoccupied in 2023 and 2024. This site has qualified for a final displacement evaluation and has been added to the displacement totals.

HRC 372 (indirect)
HUM1104
Harvest in July of 2020 initiated a potential indirect displacement. This site was unoccupied in 2020 prior to potential displacement and continued to be unoccupied through 2024. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

Clear Creek (direct)
HUM0438
Harvest in September of 2020 initiated a potential direct displacement. This site was unoccupied in 2020 prior to potential displacement and continued to be unoccupied through 2024. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

Potential displacement based on year 2021

Upper Maple B.L. (indirect)
HUM0475
Harvest in June of 2021 initiated a potential indirect displacement. This site was occupied by a single spotted owl with unknown paired or reproductive status prior to potential displacement. This site was unoccupied in 2022-2024 and is considered vacant. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

Guptil Gulch (indirect)
HUM1028
Harvest in July of 2021 initiated a potential indirect displacement. This site was unoccupied prior to potential displacement. This site remained unoccupied in 2022-2024. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

PL3 (indirect)
HUM0576
Harvest in July of 2021 initiated a potential indirect displacement. This site was unoccupied prior to potential displacement. This site remained unoccupied in 2022-2024. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

Middle Stevens Creek (indirect)
HUM0370
Harvest in November of 2021 initiated a potential indirect displacement. This site was occupied by a non-nesting pair prior to potential displacement and a nesting pair in 2022. This site was occupied by a non-reproductive pair in 2023, and a pair with unknown reproductive status in 2024. Therefore, harvest did not result in displacement and this site has been removed from the potential displacement totals.

Salmon Creek #4 (indirect)
HUM0274
Harvest in December of 2021 initiated a potential indirect displacement. This site was occupied by a single spotted owl with unknown paired and reproductive status prior to potential displacement. This site was occupied by a non-reproductive pair in 2022 and a pair with unknown reproductive status in 2023. This site was unoccupied in 2024 and does not yet qualify to be evaluated for final displacement determination.

Stevens Creek East (indirect)
HUM0858

Harvest in December of 2021 initiated a potential indirect displacement. This site was unoccupied prior to potential displacement and remained unoccupied in 2022. This site was considered vacant in 2023 and 2024. Therefore, this site has qualified for a final displacement evaluation and has been added to the displacement totals.

Upper Stevens Creek (indirect)
HUM0485
Harvest in November of 2021 initiated a potential indirect displacement. This site was occupied by a non-reproductive pair prior to the potential displacement and a nesting pair in 2022. This site was occupied by a non-reproductive pair in 2023 and a reproductive pair in 2024. Therefore, harvest did not result in displacement and this site has been removed from the potential displacement totals.

Potential displacement based on year 2023

Mather #1 (indirect)
HUM0736
Harvest in February of 2023 initiated a potential indirect displacement. This site was unoccupied prior to the potential displacement and continued to be unoccupied in 2024. This site does not yet qualify to be evaluated for final displacement determination.

Lower McCloud Creek (indirect)
HUM0432
Harvest in July of 2023 initiated a potential indirect displacement. This site was unoccupied prior to the potential displacement and continued to be unoccupied in 2024. This site does not yet qualify to be evaluated for final displacement determination.

c. Projected potential displacement

1) Outcome of 2023-2024 projected potential displacements

In the 2023 report, it was estimated that two owl sites would be potentially displaced in the current reporting period. Zero potential displacements were triggered during the 2023-2024 take accounting period, and one potential displacement was triggered during the 2024-2025 take accounting period, but at a different site than what was projected (Table 13).

2) 2024-2025 Projected potential displacements.

Green Diamond is projecting two potential displacements during the next reporting period (Table 14).

d. Direct harm

No direct harm or injury to spotted owls inadvertently occurred within the purview of Green Diamond's 10(a)(1)(B) permit.

However, one juvenile was recovered at HUM0390 (Powerline North site) and submitted to the Wildlife Health Laboratory with California Department of Fish and Wildlife for necropsy. On May 23, 2024, a site visit survey confirmed nesting at this site. On June 7, 2024, one juvenile carcass was discovered near the nest tree. Histology results confirmed that this female nestling was infected with a blood parasite. The parasite was likely Leucocytozoon, which is transmitted by biting black flies.

A second juvenile was recovered at HUM0236 (EBF site) and submitted to the Wildlife Health Laboratory for necropsy. On April 15, 2024, a site visit survey confirmed nesting at this site. Additional surveys confirmed the presence of a nestling, and on June 20, 2024, the carcass of a juvenile was recovered near the base of the nest tree. No additional nestlings were located at this site during multiple follow-up surveys. Due to the condition of the carcass, necropsy and histology reports were inconclusive.

Table 13. Potential displacement status of owl sites in 2024 projected in 2023 to be triggered from Sept. 1, 2023 - Sept. 1, 2024, and type of potential displacement projected.

Owl site	Projected type of potential displacement	Actual potential displacement status
Lower Beach Creek (HUM0474)	Direct	No potential displacement occurred
Dominie Dogleg (DNT0159)	Indirect	No potential displacement occurred
Simpson Creek (HUM0213)	No potential displacement projected	Direct

Table 14. Owl sites projected to be potentially displaced from Sept. 1, 2024 - Sept. 1, 2025 and type of potential displacement anticipated.

Owl site	Type of potential displacement	Site Status
Upper Roach Creek (HUM0412)	Direct	Single Male
Dominie Dogleg (DNT0159)	Indirect	Unoccupied

3. Discussion

Since implementation of the FHCP, potential displacements have occurred at 15 spotted owl sites. Seven of these sites (Windy Point, Guptil Gulch, and Upper Maple BL, Middle Stevens Creek, Salmon Creek #4, Stevens Creek East, and Upper Stevens Creek), were considered displaced under the previous 1992 Northern Spotted Owl HCP. Only three of the 15 sites were occupied by spotted owl pairs prior to the potential displacement. All three paired sites remained occupied after the harvest that triggered the potential displacement, and two of the three sites were occupied by nesting pairs post-harvest. The remaining ten sites were occupied by single spotted owls (n=4) or unoccupied by spotted owls (n=8) prior to the potential displacement. Since FHCP implementation, harvest at nine of the potential displacement sites has resulted in a biological displacement (confirmed displacement), and two potential takes have been recovered due to confirmed non-displacements.

Although the majority of potential displacement sites have experienced low occupancy and poor reproduction prior to the potential displacement, two sites (Salmon Creek #4 and Upper Stevens Creek) have been occupied by spotted owls that nested within 3 years preceding the potential displacement. These two sites were considered displaced under the previous 1992 NSO HCP resulting in owls occupying core areas with remnant nesting habitat but habitat at the site level (0.5-mile circular buffer) below displacement thresholds (<233 overall acres). However, harvesting that triggered the potential displacements under the FHCP occurred at the outer edge of the 0.5-mile buffer such that the nesting core remained intact. Pair occupancy and reproduction continued at the Upper Stevens Creek site such that actual displacement did not occur at this site.

Previous analyses examining displacements that occurred during the 1992 Northern Spotted Owl HCP permit term have suggested that site occupancy subsequent to potential displacement was strongly correlated with the type of potential displacement. For example, if potential displacement reporting was triggered as a result of timber harvest within 500 feet of an activity center (potential direct displacement) but an adequate amount of habitat remained within the territory, the owls were more likely to persist in the area. During the current reporting period, one direct displacement was initiated. Five of the nine confirmed displacements were considered direct displacements (either initially or in subsequent years). However, as noted above only two of the sites were occupied prior to the initiation of the displacement. Future monitoring is needed to understand the potential impacts of harvesting and type of displacement on site persistence and biological performance. However, the potential displacements that have occurred during FHCP implementation were associated with sites demonstrating low occupancy and a lack of reproduction. These sites were unlikely to provide biological support for the local population within the Plan Area.

B. Fisher

1. Methods

Similar to spotted owls, the primary source of potential harm to fishers is habitat modification through timber harvesting that results in displacement of fishers. Displacement likely decreases survival and fecundity as fishers attempt to find suitable habitat not already occupied by a resident fisher. Through previous studies conducted on the Green Diamond ownership, the estimated population density of fishers across the Plan Area is 335 fishers. Because timber harvest averages approximately 2.0% of the ownership per year, annual timber harvest has the potential to harm an average of 6.7 fisher (2.0% of 335 = 6.7). Therefore, take is estimated to be 6.7 fisher annually. The percent of harvest within the Plan Area was estimated using harvest depletion data. Harvest depletion data are derived from post-harvest aerial imagery that depicts actual acres removed through Covered Activities and accounts for retention acres. The harvest depletion data is available at the end of each calendar year, and analyses are conducted over several months. Therefore, the percent of harvest within the Plan Area between January 1, 2023 and January 1, 2024 was reported.

Green Diamond has also documented fisher deaths at abandoned or unmaintained water tanks. Fishers may enter an unrestricted opening resulting in drowning or entrapment. All water tanks are inspected annually to ensure that openings are secured against potential entry by fishers. The details of these inspections are further described in Chapter VIII.

2. Results

A total of 350,807 acres were estimated to occur within the Plan Area, and 3,399 acres were harvested resulting in harvest of 1.0% of the Plan Area between January 1, 2023 and January 1, 2024.

3. Discussion

The annual level of take was projected to average 2.0% of the Plan Area fisher population as measured by the total acres harvested. During the current reporting period, the percent of harvest within the Plan Area did not exceed the projected average. Additionally, no fisher carcasses were observed during inspections of water tanks and covers over openings were intact indicating exclusion efforts continue to be successful.

C. Tree vole

1. Methods

Direct harm or displacement of tree voles may occur as a result of timber harvest. The approximate level of take is equal to the proportion of suitable nesting habitat harvested each year, which is projected to average 2.0% annually. Acreages were estimated using harvest depletion data to determine the change in the proportion of stands 20 years or older with at least 20% basal area of Douglas-fir (nesting habitat). Harvest depletion data are derived from post-harvest aerial imagery that accounts for retention acres in addition to acres removed. The depletion data allows for a more accurate measure of the changes in the proportion of vole habitat from one year to the next (growth and harvest). The harvest depletion data is available at the end of each calendar year, and analyses are conducted over serval months. Therefore, the change in proportion of habitat between January 1, 2023 and January 1, 2024 was reported. Although this does not coincide with the dates of the reporting period, it more accurately reflects changes in the proportion of nesting habitat for tree vole from one year to the next. Additionally, Green Diamond's forestry staff avoided felling trees with tree vole nests located within the Riparian Management Zones (RMZs) and geological areas.

2. Results

The proportion of vole nesting habitat within the Plan Area as of January 1, 2023 was 53.6%, and the overall change in vole nesting habitat during the current reporting period was an increase of 2.9% (Table 8, Chapter IV).

No trees with known tree vole nests were felled within the RMZs or geological areas during the current reporting period.

3. Discussion

The annual level of take was projected to average 2.0% of the Plan Area vole population as measured by the change in the proportion of vole nesting habitat. The change in the proportion of vole nesting habitat within the Plan Area for this annual report did not exceed the projected average. Additionally, no trees containing tree vole nests were felled within the RMZs or geological areas.

VI. Conservation Areas

The fundamental premise of the FHCP is that a mosaic of high-quality habitat would be maintained for the Covered Species within the term of the permit through retention of habitat elements and regrowth of other habitat components temporarily lost due to timber harvest. This central conservation strategy is augmented by specific landscape commitments. The primary mitigation strategy for the Northern spotted owl under the FHCP is the establishment of Dynamic Core Areas (DCAs) as the highest priority and level of protection for the most productive spotted owl sites distributed throughout the Plan Area. DCAs are intended to be dynamic and adaptive, which contrasts with the static reserve concept of the set-asides established under the 1992 Northern Spotted Owl HCP. Upon FHCP approval, set-aside areas established under the 1992 Northern Spotted Owl HCP that were not included as DCAs were available for timber harvest. However, harvesting was scheduled in a manner to delay take of spotted owl sites as long as possible within the constraints of the Forest Practice Rules (FPRs) and adjacency requirements. In addition to the DCAs, the FHCP established a Peripheral Area of approximately 2% of the Green Diamond ownership where spotted owls were specially managed for no take. This section of the annual report describes harvesting within former set-asides; designation, monitoring, and replacement of DCAs; and Peripheral Area management.

A. Methods

Green Diamond established 44 DCAs in the Plan Area, totaling 3777.4 acres. Each DCA was designed to provide a core nesting area for a single pair of spotted owls with a minimum no-harvest core area of 89 acres of nesting/roosting habitat where available. These initial DCAs were selected by first evaluating all sites within the Plan Area during the course of study (1990-2015). The criteria included selecting the most functional sites in terms of high occupancy and fecundity while considering extenuating factors related to maintaining good spatial distribution and considering barred owl influences on spotted owl site occupancy. In order to maintain spatial distribution for existing DCAs and future replacement DCAs, the Plan area was divided into 11 Owl Management Units (OMUs) ranging in size from approximately 22,000 acres to approximately 55,000 acres. OMUs were also used to evaluate spotted owl sites within geographical areas of somewhat similar habitat composition and management history. Using the same criteria, twelve additional DCAs were established as potential replacement or “Adaptive Management DCAs” (AMDCA) to provide for augmentation of the spotted owl population, as options for replacing spotted owl sites designated in the initial set of 44 DCAs, and for additions if Adaptive Management was triggered.

1. Transition from 1992 Northern Spotted Owl HCP set-asides

All set-aside areas defined in the 1992 Northern Spotted Owl HCP that were not designated as a DCA were available for timber harvest. However, Green Diamond implemented harvesting of these former set-asides within the Plan Area to maximize the persistence of any existing spotted owl sites by using a pattern of harvest unit layouts that avoided the core nesting area until the final harvest unit(s) within that set-aside.

2. DCA monitoring

The 44 DCAs and 12 AMDCAs were surveyed for spotted owls and barred owls, including a combination of site visits (daytime stand searches) and nighttime broadcast surveys at known spotted owl sites. A DCA/AMDCA was considered occupied if the associated spotted owl site was occupied, including occupancy at activity centers located outside of the DCA/AMDCA boundary. Annual occupancy and mean fecundity were calculated for all associated spotted owl sites in order to monitor the success of the biological functionality of the DCA (i.e., mean annual occupancy ≥0.75 and mean fecundity ≥0.25 averaged over the last four years). All owl activity centers were classified according to the definitions in section 6.2.4.4 of the FHCP. Since demographic surveys were not conducted for barred owls, information on barred owl site activity centers was limited. However, a combination of daytime and nighttime barred owl detections was used to determine if a spotted owl site associated with a DCA/AMDCA was influenced by barred owls. The spotted owl site was considered newly barred owl influenced if one of the following conditions were met:

- a pair of barred owls were detected within the site,
- a single barred owl was detected within the site more than once during the breeding season and detections were separated by at least two weeks, or
- a single barred owl was detected within the site over multiple consecutive breeding seasons.

For sites previously designated as barred owl influenced, the spotted owl site was considered barred owl influenced in the current reporting period if a barred owl was detected within 0.5 mile.

3. DCA replacement or additions

The DCA conservation strategy was designed to maintain a well-distributed array of protected nesting core areas with high occupancy and good fecundity. Since these sites occur on a changing managed landscape, the locations of DCAs must remain dynamic through time to maintain their biological functionality while also providing flexibility in timber harvesting. Therefore, a DCA replacement occurred if the site declined below or failed to meet the biological thresholds for a DCA (i.e., mean annual occupancy ≥0.75 and mean fecundity ≥0.25 averaged over the last four years). DCA replacement may also occur for economic reasons so long as the replacement DCA met the biological and spatial

requirements defined in the FHCP (Section 5.3.1.4.4). However, DCAs were not replaced during the first 5 years of FHCP implementation in order to allow time for the Conservation Program to be effective, especially barred owl removal efforts. As described above, 12 AMDCA sites may be used for replacing spotted owl sites designated in the initial set of 44 DCAs and for additions if Adaptive Management was triggered. One additional DCA was designated for each incremental net increase in the Plan Area of 8,000 acres, and the additional DCA was located within the scope of the added lands.

4. Peripheral Area management

The Peripheral Area consisted of timberlands that Green Diamond does not intend to own and manage as part of its long-term business plan and conservation plan for the Covered Species. Additionally, the Peripheral Area consisted of any other Green Diamond Ownership in Del Norte or Humboldt Counties, California that were outside the Eligible Plan Area described in the FHCP. The Peripheral Area was managed solely for the prevention of spotted owl take by timber harvest through implementation of pre-harvest survey protocols. If a spotted owl site was known to exist or was detected through surveys, it was protected by no take seasonal harvest restrictions and by maximum habitat modification limitations within no take spatial buffers around the spotted owl site (FHCP Section 6.2.4).

B. Results

1. Transition from 1992 Northern Spotted Owl HCP set-asides

Fourteen unique harvest units associated with six timber harvest plans were initiated within six of the former set-asides during the current reporting period (Table 15). Although 12 active spotted owl sites were within the boundaries of these set asides, the owl sites and harvest operations were not impacted due to habitat levels above thresholds (Section 5.1) and protection measures for nesting owls (Section 2.1).

Table 15. Schedule of set-asides and spotted owl site occupancy 2024.

Set-aside name	Original acres	Acres harvested in current reporting period	Cumulative acres harvested	Acres remaining	Site name	Site status	Harvest within site core
4076	297.1	0.0	0.0	297.1	4076[1]	Single male, unknown pair status	None
					4128	Single male, unknown pair status	None
					4300	Nesting pair	None
4230	77.0	0.0	0.0	77.0	4230#1[1]	Non-reproductive pair	None
4850	875.9	94.8	94.8	781.1	4850	Vacant	None
					4851[1]	Male, pair status unknown	None
					6600[1]	Unoccupied	None
					Maple Creek #1	Male, pair status unknown	None
5700	76.2	0.0	0.0	76.2	5700[1]	Non-reproductive pair	None
6007	193.8	0.0	0.0	193.8	6007[1]	Nesting pair	None
Bald Mt. Creek	61.2	0.0	0.0	61.2	None	Not applicable	None
Black Dog Creek	167.7	0.0	43.4	124.3	Lower Dry Creek	Non-reproductive pair	None
Blue Creek Cabin	498.8	1.1	1.1	497.7	None	Not applicable	None
Boulder Creek	1987.8	108.9	317.4	1670.4	Boulder Creek #1	Pair, unknown reproductive status	None
					Boulder Creek #2[1]	Pair unknown reproductive status	None
					Boulder Creek #3[1]	Unoccupied	None
					Boulder Creek #4	Non-reproductive pair	None

Set-aside name	Original acres	Acres harvested in current reporting period	Cumulative acres harvested	Acres remaining	Site name	Site status	Harvest within site core
					Boulder Creek #5[1]	Vacant	None
					Camp Gate	Non-reproductive pair	None
					Camp Gate North[1]	Unoccupied	None
Bug Creek	371.5	0.0	0.0	371.5	None	Not applicable	None
Cal Barrel	192.5	42.4	74.4	86.1	Cal Barrel	Unoccupied	None
Camp Bauer	241.1	0.0	0.0	241.1	Camp Bauer[1]	Non-reproductive pair	None
Canyon Creek	188.3	5.6	41.1	147.2	Canyon Creek #1[1]	Nesting pair	None
Devil's Creek	113.3	0.0	0.0	113.3	Mad River Overlook	Unoccupied	None
Dolly Varden	374.2	26.3	90.6	283.6	Dolly Varden[1]	Vacant	None
EBF	111.6	0.0	0.0	111.6	EBF[1]	Nesting pair	None
Fawn Prairie	242.3	0.0	73.8	168.5	None	Not applicable	None
H131	166.9	0.0	0.0	166.9	None	Not applicable	None
Humbug Creek	162.6	0.0	0.0	162.6	Humbug Creek	Unknown[2]	None
Johnson Creek	125.2	32.8	32.8	92.4	None	Not applicable	None
Little Deer Creek	680.8	124.5	124.5	556.3	Deer Creek	Unknown[2]	None
					Little Deer Creek	Unoccupied	None
Lower Tully Creek	376.1	0.0	0.0	376.1	None	Not applicable	None
Lupton Creek	249.0	0.0	0.0	249.0	Lupton Creek #1[1]	Unoccupied	None
					Lupton Creek #3	Male, pair status unknown	None

Set-aside name	Original acres	Acres harvested in current reporting period	Cumulative acres harvested	Acres remaining	Site name	Site status	Harvest within site core
McCloud Creek	174.9	48.6	48.6	126.3	None	Not applicable	None
Mettah Creek	176.3	0.0	0.0	176.3	None	Not applicable	None
Morek Creek	1002.7	0.0	0.0	1002.7	None	Not applicable	None
Mule Creek	853.1	104.0	203.8	649.3	Denman Creek	Non-reproductive pair	None
					Mule Creek	Unoccupied	None
No Name Creek	735.2	0.0	0.0	735.2	7000	Unoccupied	None
					Noname Creek[1]	Pair, unknown reproductive status	None
					Upper Noname Creek	Unoccupied	None
					Noname North	Unoccupied	None
Old 299	172.1	0.0	0.0	172.1	Old 299 #1[1]	Nesting pair	None
Poverty Creek	363.9	66.5	84.4	279.5	Poverty Creek	Unoccupied	None
Puter Creek	127.8	0.0	0.0	127.8	Quarry Creek[1]	Non-reproductive pair	None
Redwood Creek	181.1	0.0	0.0	181.1	None	Not applicable	None
Roddiscraft/Powerline	312.3	0.0	0.0	312.3	Powerline North	Nesting pair	None
Salmon Creek	218.0	0.0	0.0	218.0	Salmon Creek #3[1]	Unoccupied	None
					Sampson	Vacant	None
SF Bald Mt.	130.0	20.9	20.9	109.2	None	Not applicable	None
T300	71.8	0.0	0.0	71.8	None	Not applicable	None

Set-aside name	Original acres	Acres harvested in current reporting period	Cumulative acres harvested	Acres remaining	Site name	Site status	Harvest within site core
Upper Tully Creek	239.5	0.0	0.0	239.5	Upper Tulley Creek	Vacant	None
Walsh	148.2	0.0	0.0	148.2	Middle Salmon Creek	Unoccupied	None
					Walsh	Non-reproductive pair	None
Williams Ridge	261.8	0.0	0.0	261.8	None	Not applicable	None
Wiregrass	229.0	0.0	0.0	229.0	None	Not applicable	None

[1] Denotes a spotted owl site that is also associated with a DCA or AMDCA.

[2]Unknown site status indicates that protocol surveys were not conducted. During the current reporting period, sites with an 'unknown' status were located outside of the demographic study area and where no timber harvesting was proposed.

[3]Single unknown denotes a spotted owl whose sex, pair status and reproductive status are unknown.

2. DCA monitoring

The 44 originally designated DCAs were located in seven of the 11 OMUs, and the 12 AMDCAs were located in four of the OMUs (Table 16). Fifteen DCAs (Table 17) and six AMDCAs (Table 18) were occupied by spotted owls in 2024. Thirteen DCA sites were occupied by pairs, zero were occupied by single owls, and two were occupied by owls with unknown social status. Six DCA-associated pairs attempted nesting, and four pairs successfully fledged six owlets. Five AMDCAs were occupied by pairs, one was occupied by a single owl, and zero were occupied by an owl with unknown social status. One AMDCA-associated pair attempted nesting and successfully fledged one owlet. Compared to the previous reporting period, DCA/AMDCA occupancy decreased but paired occupancy increased.

Thirty-four of the 44 DCAs were considered to be influenced by barred owls in a previous year, 16 continued to be barred owl influenced in 2024, and one DCA was influenced by barred owls for the first time in 2024. Five of the 12 AMDCAs were considered to be influenced by barred owls in a previous year, zero continued to be barred owl influenced in 2024, and zero AMDCAs were newly barred owl influenced during the current reporting period.

Of the 44 originally designated DCAs, seven met the criteria for mean fecundity and mean occupancy, seven met the criteria for either mean fecundity or mean occupancy, and 30 failed to meet either criterion. Of the 12 AMDCAs, two met the criteria for mean fecundity and mean occupancy, five met the criteria for either mean fecundity or mean occupancy, and five failed to meet either criterion.

Table 16. Owl Management Units (OMUs) and their current associated DCA/AMDCAs. AMDCAs are differentiated with an asterisk.

OMU#	OMU Name	DCA	AMDCA
1	Smith River	None	Winchuck River
2	Wilson, Hunter, Terwer Creeks	East Fork Hunter, Hunter 500, T-Line, W100, W302	None
3	McGarvey, Ah Pah, Surpur Creeks	None	None
4	Tectah, Mettah, Roach, Tully Creeks	Ambrose, Hancorne Ranch, Lower Roach, Morek Creek, Notchkoo, WM200, WM400	None
5	Maple Creek	None	None
6	Redwood Creek	Dolly Varden, Fernwood, Garrett Creek, Lupton Creek #1, Noisy Creek, Panther Bridge	None
7	Little River	None	None
8	North Fork Mad River	Cal Barrel Washout, Camp Bauer, Jurin, Lower Dolf Creek, Old 299 #1, SF Bald Mt. Creek	Tip Top Ridge
9	Lower Mad River, Jacoby Creek	4076, 4230 #1, 4851, 6007, 6600, Canyon Creek #1, Devil's Creek, Dry Creek, Noname Creek	4107, 5700, Blue Blossom, Mad River Overlook, Mad River STS, Noname North, Quarry Creek, Sullivan Gulch
10	Upper Mad River, Upper Redwood Creek	Boulder Creek #2, Boulder Creek #3, Boulder Creek #5, Camp Gate North, Camp Gate South, Graham Creek, Mt. Andy, N. Goodman Prairie, Pardee South	None
11	Humboldt Bay, Eel River	EBF, Salmon Creek #3	C2300, Salmon Creek #2

Table 17. Dynamic Core Area (DCA) characteristics based on the current reporting period. 'Previous' indicates barred owl influence in a previous year.

DCA #	DCA site name	Acres	Starting year of occupancy	Year last occupied	Barred owl influence	Current year		Last 4 years (2021-2024)			
						Site Status	Number of fledglings	Mean fecundity	Number of fledglings	Years occupied	Mean Occupancy[1]
1	Hunter 500	78.2	2006	2022	No (previous)	Unoccupied	0	0.50	2	2	0.50
2	W302	87.4	1992	2015	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
3	W100	76.9	1992	2020	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
4	East Fork Hunter	56.0	2004	2021	No	Vacant	0	0.00	0	1	0.25
5	T-Line	98.1	1992	2019	Yes	Vacant	0	0.00	0	0	0.00
6	Ambrose	80.8	1993	2010	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
7	Notchkoo	72.3	1992	2022	Yes (previous)	Unoccupied	0	0.00	0	1	0.25
8	Lower Roach	98.6	1992	2023	Yes (previous)	Unoccupied	0	0.00	0	3	0.75
9	Morek Creek	107.7	1992	2016	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
10	Hancorne Ranch	90.4	2001	2012	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
11	WM400	105.5	1992	2016	No (previous)	Unoccupied	0	0.00	0	0	0.00
12	WM200	79.6	1992	2016	No (previous)	Vacant	0	0.00	0	0	0.00
13	Panther Bridge	81.1	1992	2020	No (previous)	Unoccupied	0	0.00	0	0	0.00
14	Garrett Creek	76.5	1992	2012	Yes (previous)	Unoccupied	0	0.00	0	0	0.00

DCA #	DCA site name	Acres	Starting year of occupancy	Year last occupied	Barred owl influence	Current year		Last 4 years (2021-2024)			
						Site Status	Number of fledglings	Mean fecundity	Number of fledglings	Years occupied	Mean Occupancy[1]
15	Dolly Varden	118.2	1992	2006	No (previous)	Vacant	0	0.00	0	0	0.00
16	Lower Dolf Creek	67.9	1999	2013	No (previous)	Vacant	0	0.00	0	0	0.00
17	Jurin	91.2	1993	2016	No (previous)	Unoccupied	0	0.00	0	0	0.00
18	Old 299 #1	81.3	1992	2024	No (previous)	Nesting pair	2	0.375	3	4	1.00
19	Lupton Creek #1	92.7	1992	2015	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
20	Cal Barrel WO	81.7	1992	2024	No	Nesting pair	2	0.50	4	4	1.00
21	SF Bald Mt. Creek	69.4	1992	2024	No (previous)	Nesting pair	1	0.125	1	4	1.00
22	Camp Bauer	103.8	1992	2024	No (previous)	Non-reproductive pair	0	0.25	2	4	1.00
23	Fernwood	93.4	1992	2021	No	Vacant	0	0.00	0	1	0.25
24	Noisy Creek	129.7	1992	2011	No (previous)	Vacant	0	0.00	0	0	0.00
25	4230 #1	76.0	1992	2024	Yes (previous)	Non-reproductive pair	0	0.375	3	4	1.00
26	Canyon Creek #1	73.5	1992	2024	No	Nesting pair	0	0.25	1	4	1.00
27	4076	84.7	1992	2024	Yes (previous)	Male, unknown pair status	0	0.00	0	1	0.25
28	6007	78.5	1997	2024	No	Nesting pair	1	0.375	3	4	1.00
29	Devil's Creek	97.0	1999	2024	No (previous)	Non-reproductive pair	0	0.33	2	3	0.75

DCA #	DCA site name	Acres	Starting year of occupancy	Year last occupied	Barred owl influence	Current year		Last 4 years (2021-2024)			
						Site Status	Number of fledglings	Mean fecundity	Number of fledglings	Years occupied	Mean Occupancy[1]
30	Dry Creek	68.0	1992	2023	Yes (previous)	Unoccupied	0	0.00	0	3	0.75
31	4851	65.9	1992	2024	Yes (previous)	Male, unknown pair status	0	0.00	0	4	1.00
32	6600	70.7	1992	2014	Yes (previous)	Unoccupied	0	0.00	0	0	0.00
33	Noname Creek	77.6	1992	2024	No	Pair, unknown reproductive status	0	0.00	0	1	0.25
34	Pardee South	71.5	2004	2023	Yes (previous)	Unoccupied	0	0.00	0	1	0.25
35	Boulder Creek #3	104.1	1992	2017	No (previous)	Unoccupied	0	0.00	0	0	0.00
36	Boulder Creek #2	78.9	1992	2024	No (previous)	Pair, unknown reproductive status	0	0.00	0	2	0.50
37	Camp Gate North	76.6	1992	2021	No (previous)	Unoccupied	0	0.00	0	1	0.25
38	Boulder Creek #5	96.9	1997	2018	No	Vacant	0	0.00	0	0	0.00
39	Camp Gate South	72.4	1992	2024	No (previous)	Non-reproductive pair	0	0.00	0	2	0.5
40	Mt. Andy	95.7	1994	2015	No	Vacant	0	0.00	0	0	0.00
41	North Goodman Prairie	130.3	1992	2024	No (previous)	Non-reproductive pair	0	0.00	0	2	0.5
42	Graham Creek	89.3	1992	2016	No	Vacant	0	0.00	0	0	0.00
43	EBF	74.3	1992	2024	No (previous)	Nesting Pair	0	0.00	0	3	0.75

DCA #	DCA site name	Acres	Starting year of occupancy	Year last occupied	Barred owl influence	Current year		Last 4 years (2021-2024)			
						Site Status	Number of fledglings	Mean fecundity	Number of fledglings	Years occupied	Mean Occupancy[1]
44	Salmon Creek #3	77.1	1992	2023	Yes (previous)	Unoccupied	0	0.00	0	3	0.75

[1] Mean Occupancy is reported as naïve occupancy (i.e., not modeled occupancy).

Table 18. Characteristics of Potential Replacement or Adaptive Management Dynamic Core Areas (AMDCAs) established during the first five years of plan implementation. 'Previous' indicates barred owl influence in a previous year.

AMDCA #	DCA site name	Acres	Starting year of occupancy	Year last occupied	Barred owl influence	Current year		Last 4 years (2021-2024)			
						Site status	Number of fledglings	Mean fecundity	Number of fledglings	Years occupied	Mean occupancy[1]
45	Winchuck River	93.6	2011	2024	No (previous)	Non-reproductive pair	0	0.00	0	4	1.00
46	Tip Top Ridge	94.9	2016	2019	No (previous)	Unoccupied	0	0.00	0	0	0.00
47	Sullivan Gulch	89.7	2010	2022	No	Unoccupied	0	0.00	0	2	0.50
48	Quarry Creek	92.4	1992	2024	No	Non-reproductive pair	0	0.00	0	4	1.00
49	Mad River STS	97.5	2012	2022	No	Unoccupied	0	1.00	2	2	0.50
50	4107	92.4	1992	2020	No	Vacant	0	0	0	0	0.00
51	Blue Blossom	97.1	2010	2024	No (previous)	Non-reproductive pair	0	0	0	3	0.75
52	5700	90.3	1992	2024	No	Non-reproductive pair	0	0.125	1	4	1.00
53	Mad River Overlook	90.1	2015	2022	No (previous)	Unoccupied	0	0	0	1	0.25
54	Noname North	93.1	2013	2022	No (previous)	Unoccupied	0	0	0	2	0.50
55	Salmon Creek #2	93.5	1992	2024	No	Single Male	0	0.50	2	3	0.75
56	C2300	90.0	1992	2024	No	Nesting pair	1	0.50	4	4	1.00

[1]Mean Occupancy is reported as naïve occupancy (i.e., not modeled occupancy).

Table 19. Comparison of occupancy and reproductive success for DCA and AMDCA sites from 2020 through 2024.

Year	# Occupied	# Pairs	# Pairs nesting	# Pairs successful	# Fledged owlets
2020	25	14	8	6	7
2021	26	18	12	8	12
2022	22	14	7	3	3
2023	23	14	8	5	8
2024	21	18	7	5	7

3. DCA replacement and additions

No DCAs were replaced during the current reporting year. Less than 8,000 net acres have been added to the Plan Area; therefore, no DCAs were added during the current reporting period (Table 21).

Table 20. Change in Plan Area acreage since FHCP implementation.

Initial Plan Area Acres	Current Plan Area Acres	Change in Acreage (net acres)
358,065	363,287	5,222

4. Peripheral Area management

One THP comprised of two harvest units was harvested within the Peripheral Area during the reporting period. Therefore, pre-harvest surveys were conducted. Although one active spotted owl sites was located within 0.5 mile of the harvest units, the owl site and harvest operations were not impacted due to habitat levels above thresholds (Section 5.1) and protection measures for nesting owls (Section 2.1). No land transactions occurred within the Peripheral Area during the reporting period. However, Green Diamond timber rights associated with approximately 410.0 acres within the Peripheral Area expired during the current reporting period.

C. Discussion

Although harvest occurred within six of the historic set-asides, active spotted owl sites were not impacted due to the location of harvest in relation to the current activity center and the amount of habitat post-harvest.

In 2024, 47% of the spotted owl nest sites within the Plan Area were located within a DCA (n = 6) or an AMDCA (n = 1). Of the eight nest sites not associated with a DCA or an AMDCA, five were located within an OMU containing one of the DCA- or AMDCA-associated nest sites, and three would be eligible for designation as a replacement DCA. None of the DCA/AMDCA associated pairs that successfully fledged young were influenced by barred owls in 2024. Although formal analyses have not been completed, the increase in overall mean fecundity and mean occupancy at DCA/AMDCA sites in 2021 was likely a result of ongoing barred owl removal efforts. Although the overall occupancy decreased in 2024 compared to the previous reporting period, paired occupancy increased. As outlined in the FHCP, DCAs will not be replaced for the first five years of FHCP implementation in order to allow time for the Conservation Program to be effective, especially barred owl removal efforts. In the absence of barred owls, spotted owls may select sites based strictly on habitat quality, and spotted owl performance at currently designated DCA/AMDCA sites may improve once the competitive pressures are alleviated.

VII. Spotted Owl Studies

Green Diamond's spotted owl studies from 1989 through 2019, which included a two-year graduate study of the owls' habitat and implementation of Green Diamond's 1992 HCP for Northern Spotted Owls, provided a firm biological basis for the conservation strategy of the FHCP. The demographic portion of these studies, which were continued in 2024, addressed population density, reproductive success, site occupancy, population turnover rates, and other demographic information pertaining to the owls.

The objectives of Green Diamond's continuing owl studies are to monitor the efficacy of the FHCP through:

- Estimating distribution and population density of northern spotted owls through direct counts of banded birds in large tracts of managed young-growth forests in northern California.
- Estimating demographic parameters (reproductive success, survival rates, site occupancy, and turnover rates) to determine viability of this population.
- Assessing the long-term dynamic relationship between owl distribution, habitat loss through timber harvest, and habitat gain through forest growth.
- Assess the potential impact on spotted owl viability from barred owls, West Nile Virus or other new threats

A. Methods

1. Site occupancy/status

Surveys were conducted at owl sites located in 2023 for occupancy in 2024. A site was considered occupied in 2024 if owls were detected at the same roost and/or nest site from previous years. A site was considered unoccupied in 2024 if it previously was a confirmed site, but not occupied in 2024. If a site was occupied early in the 2024 season, but apparently unoccupied later in the season, it was considered occupied in 2024. Such a site will not be considered unoccupied unless it is still unoccupied in 2025.

New sites were categorized in 2024 according to their survey history. A site was designated as a "newly discovered" site if it had been found in 2024 in an area that had not been surveyed or had inadequate survey coverage prior to 2024. A site was classified as a "newly colonized" site if it had been found in 2024 in an area that had been adequately surveyed prior to 2024, but no owls had been previously detected in the area. A site was classified as recolonized if it had been occupied in one or more previous years, unoccupied for three or more years prior to 2024 and then occupied again in 2024. A site

was classified as 'possible' if first responses of spotted owls occurred late in the breeding season and for which the required number of surveys/follow-up visits could not be completed before the end of the breeding season. 'Possible' sites designated in one breeding season are surveyed in the subsequent breeding season to determine if a perennial owl site exists.

2. Reproductive success

Pair status was designated by observing a male and female in close proximity (less than 1/4 mile) in any of the following contexts: roosting, vocalizing, nesting, delivering prey, or tending young. An owl was judged to be single if the same owl was observed on two or more occasions in the same general area without detecting an owl of the opposite gender.

Nesting was designated for pairs if the female was observed incubating eggs or brooding young between April 1 and May 31. In some instances, incubation was determined in late-March, but a second visit was generally conducted prior to May 31 to confirm nesting. We determined reproductive success of nesting owl pairs that were monitored to protocol from June 1- August 31. Pairs were considered to have successfully nested if at least one owlet was observed to have fledged. In special circumstances, the location and stage of development of an owlet found dead were evaluated to determine whether the owlet had fledged.

3. Spotted owl banding

When unbanded owls or owls banded with cohort auxiliary leg bands (owls banded as juveniles with a color band identifying the year in which they were banded) were located during follow-up visits, bait mice or artificial lures were used to attract the owls within range of capture. All age classes of spotted owls were primarily captured using a snare pole. Once an owl was captured, a USFWS band was placed on one of its legs and an auxiliary colored leg band on the other. The following measurements were usually taken in earlier years of the study: wing cord, body mass, length of tarsus, length of footpad, and tail length. If conditions permitted, toe, claw, bill length and bill depth also were measured. The age class of the owl was recorded. Subadults (one- or two-year-old owls) were distinguished from adults (greater than two years old) by having pointed retrices. One-year-old (S1) and two-year-old (S2) subadults were distinguished using the methods of Moen et al. (1991). Owls were also checked for molt, previous or current injuries, parasites, and presence of brood patches for females. Owls were released immediately after they were banded and measured.

4. Juvenile dispersal

Owls banded as juveniles were assigned to the appropriate age class when they were recaptured. We used locations of spotted owls banded as juveniles (both within and outside the Green Diamond study area) and recaptured as adults or subadults to measure

juvenile dispersal distances. Distances were determined for juveniles: 1) dispersing within Green Diamond's study area and 2) dispersing from Green Diamond's study area to another area or dispersing from another area to Green Diamond. Other study areas included the Willow Creek Study Area, Hoopa Reservation, Humboldt Redwood Company, Redwood National Park and regional studies in Oregon.

5. Turnover

Adult and subadult owls banded or resighted in one year were used to determine turnover rates in the subsequent year. Owls were considered to be "missing" if they were banded or resighted at least once during one season, but not resighted the next year. If an owl disappeared in the same season in which it was earlier banded or resighted, it was reported as missing the next season if its whereabouts were still unknown. Owls that were present at a site but could not be positively resighted were excluded from the analysis. New recruits were defined as owls that became territorial for the first time.

6. Owl density

Large areas (typically greater than 50,000 acres) completely surveyed for spotted owls and owl locations were mapped on a GIS database. GIS programs determined the acreage of thoroughly surveyed areas that included a northern and a southern study area. Once the owl sites were plotted, the number of sites in the surveyed areas was determined. The sites were classified into those occupied by paired or single owls. It was assumed that a single owl occupied the site 1) if it was confirmed that a single bird was at the site, or 2) if the pair status of the site was unknown. The total number of territorial owls associated with the sites in completely surveyed areas was used to calculate overall owl density and density of owls in the northern and southern areas. The density study area on and adjacent to Green Diamond ownership is shown in Figure 2. *The **density study area** is a defined subset of the demographic study area (see definition below in section 7) in which the entire area is surveyed each year in an attempt to locate all occupied northern spotted owl sites, which can be used to calculate an annual estimate of spotted owl density.*

7. Demography

Green Diamond Resource Company has been conducting a demography study on Northern Spotted Owls since 1990 to monitor trends in the owl's population within Green Diamond's ownership. *The **demographic study area** is the portion of Green Diamond's ownership and selected adjacent areas in which all known northern spotted owl sites are monitored annually to estimate occupancy, fecundity and survival following accepted scientific protocols. The number of demographic sites may change over time as a result of land acquisitions and disposals, newly colonized sites, or significant activity center shifts at historic sites.* The Green Diamond demographic study area is one of 11 long-term, ongoing studies that contribute to a periodic, region-wide meta-

analysis of the status of the northern spotted owl. In January 2020, Green Diamond biologists attended a workshop convened in Corvallis, Oregon to analyze demographic data on Northern Spotted Owls. The workshop was attended by biologists from 11 study areas throughout Washington, Oregon and California along with a large contingent of biometricians and statisticians from several academic and research institutions across North America. Most of the study areas were on federal lands or a mix of federal, state and private lands, with only one entirely on private lands and one on Indian Reservation lands.

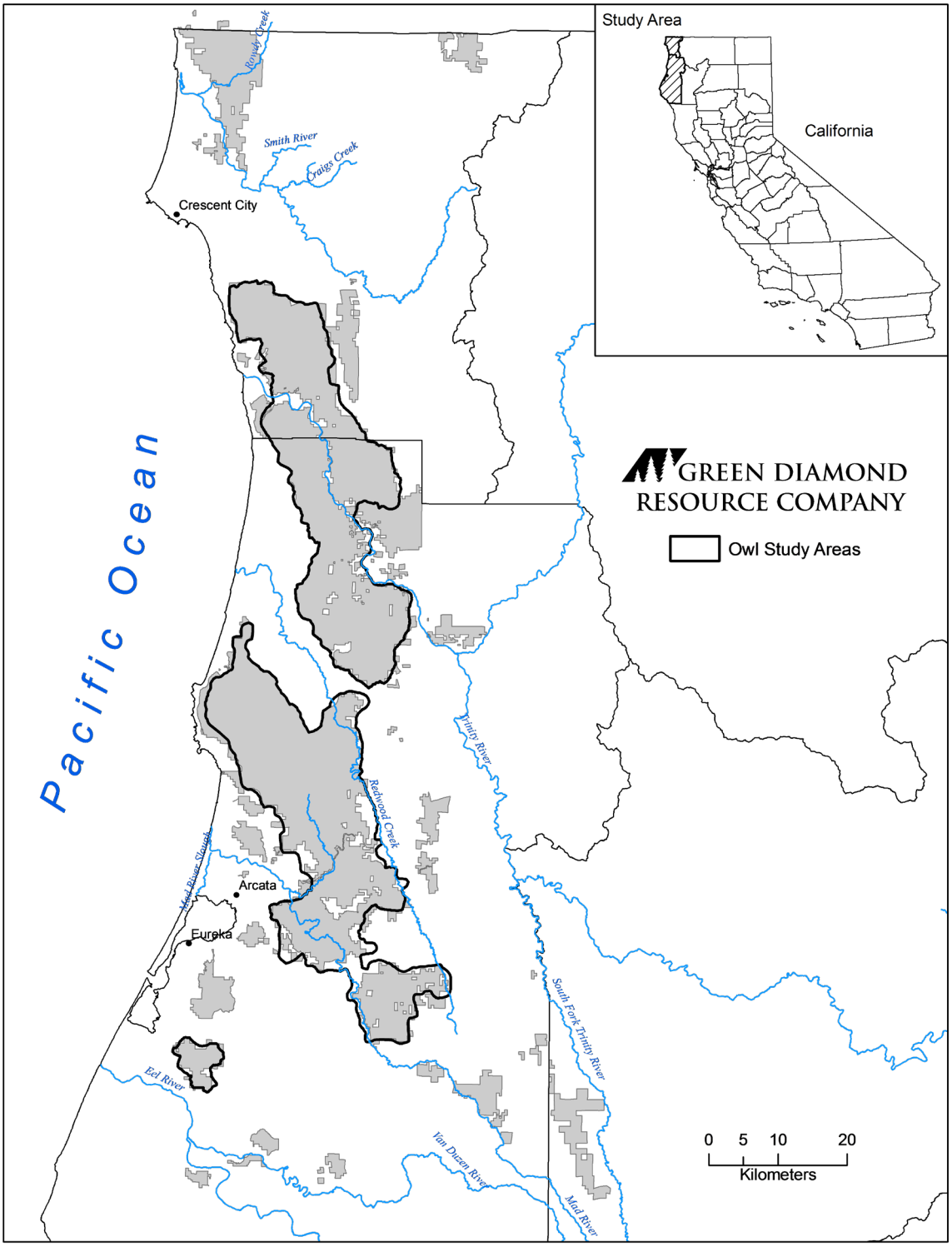

Figure 2. Location of Green Diamond density study area for northern spotted owls in northern California.

8. Barred owls

Since 1989, Green Diamond biologists have noted the incidental detection of barred owls on or adjacent to the ownership while conducting surveys for spotted owls. We recorded all barred owl detections from daytime and nighttime owl surveys since 1989. We defined a barred owl site as an area having a history of detections from a single bird on multiple occasions within the same year or in multiple years. Single detections of pairs or evidence of young were also included as sites. The assessment for number of sites was limited to the density study area since this area has consistent and adequate annual survey coverage. We did not conduct site visit level surveys for barred owls to determine paired or reproductive status.

Upon approval of the amendment to the 1992 Northern Spotted Owl HCP in December 2007, Green Diamond committed to further research on the interactions between spotted owls and barred owls. In 2009, Green Diamond began conducting barred owl surveys in select areas within the spotted owl density study area. Surveys were conducted using electronic solid state callers (Wildlife Technologies) with a variety of barred owl vocalizations. Coincident with the specific surveys for barred owls, Green Diamond launched a pilot study (Phase I) in participation with the California Academy of Sciences. The removal of barred owls was conducted in the context of before-after-control-impact (BACI) design that divided the study area into paired areas of similar size where one portion of the study area was treated (barred owls lethally removed, Diller et al. 2014) and the other area considered a “control” was untreated by allowing unfettered expansion of barred owls. The spotted owl response variables in both treatment and control areas were occupancy, fecundity and survival. A secondary objective of the study was to observe more “case studies” of how spotted owls respond to the removal of territorial barred owls. The highest priority was given to removing barred owls from nest sites or activity centers that were formerly occupied by spotted owls. Following removal, we documented the specifics of the site relative to potential recolonization by either species of owl. These case studies provided insight into how spotted owls respond, when they have been displaced by barred owls. For example, if the original spotted owl territory holders rapidly recolonize a site (i.e., several weeks to a month) following the removal of an invading pair of barred owls, this would suggest the spotted owls remained in or near their original territory after being displaced. However, if a site that has been “freed” of barred owls takes a long time (i.e., a year or more) to be recolonized and/or the spotted owls are new individuals at the site, this would suggest that displaced spotted owls abandon their territories after being displaced. The initial Phase I experiment was completed in 2014 and results of the study are available in Diller et al. 2016.

In 2020, based on the results of the Phase I experiment, Green Diamond initiated Phase II of the barred owl removal experiment which expands the removal effort across all of the Plan Area, where feasible. Phase II also utilizes a BACI (before-after-control-impact) design with paired treated (i.e., the Plan Area where barred owls will be removed) and

untreated control areas (i.e., the Willow Creek Demographic Study Area). Phase II objectives include those of Phase I (spotted owl demographic response to barred owl removal), determining the feasibility of a large-scale removal experiment, and estimating the recovery of spotted owl populations that have been suppressed by barred owls for a decade or more. Phase II has an expected duration of approximately 10 years or until objectives of the study have clearly been achieved. Following completion and evaluation of the results of Phase II, Phase III implementation will include an approved invasion and co-existence experiment. During the invasion portion of Phase III, barred owls will be allowed to recolonize selected areas from which they had previously been removed for 10 years or more. The objectives of the second portion of Phase III will be to fine tune suppression of barred owl numbers to achieve a stable equilibrium in which the FHCP spotted owl objectives are achieved while minimizing the need for continued lethal removal of barred owls.

Removal efforts in 2020 focused on spotted owl sites associated with Dynamic Core Areas (DCAs), sites with recent (within the last three years) spotted owl occupancy, and Owl Management Units (OMUs) with designated DCAs. Removal efforts in 2021-2024 continued to focus on these same areas but also expanded to include the majority of the Plan Area. For more information on DCAs and OMUs, see Chapter VI of this report. Since initiation of the Phase II barred owl removal experiments in 2020, barred owl surveys have been conducted year-round.

In 2010, we conducted occupancy surveys for barred owls within the spotted owl Density Study Area. We established 68 survey points from which we conducted the occupancy surveys. Occupancy surveys were conducted during the early breeding season and in the late fall/winter. We used a variety of barred owl vocalizations broadcast from digital wildlife callers (Wildlife Technologies, MA-15). Each survey point was called for a minimum of sixteen minutes. The goal is to conduct occupancy surveys on an annual basis to assess occupancy over the long-term in relation to potential management actions.

From 2011 through 2024, the barred owl occupancy survey effort was expanded to include the spotted owl Demographic Study Area, and we increased the number of survey points from 68 to 500 (or approximately one station/800 acres). From 2011 through 2022, we modified our survey protocols to include nine minutes of spotted owl vocalizations followed by nine minutes of barred owl vocalizations broadcast from digital wildlife callers (Wildlife Technologies model MA-15, FoxPro X1). Starting in 2023, we modified the survey protocols to include ten minutes of spotted owl vocalizations and ten minutes of barred owl vocalizations. Each survey point was called at least twice during the spotted owl breeding season (March 1 through August 31).

9. Model validation

a. Habitat fitness

Green Diamond developed a habitat fitness model for spotted owls using research and monitoring data collected over two decades. Habitat fitness projections indicate an increasing trend in the habitat with greatest fitness values suggesting the spotted owl population is capable of increasing in the Plan Area in the future. After approximately ten years of FHCP implementation, Green Diamond will attempt to validate the habitat fitness model by determining if the trend in estimated occupied spotted owl sites are statistically shown to be stable or increasing as predicted by the increasing trend in habitat quality. If validated, then direct monitoring of the entire spotted owl population across the Plan Area will be replaced by monitoring habitat conditions projected by a multi-state occupancy model.

b. Site occupancy

Since the habitat fitness model was not developed to predict how site-specific management actions might influence habitat quality for a specific spotted owl site, Green Diamond will develop and validate a multi-state occupancy model that includes management covariates that are more easily calculated and interpreted. A first draft of this site occupancy model will be developed within three years of signing the FHCP. If validated, the site occupancy model will be used to estimate take (displacement), estimate population change for the Plan Area spotted owl population and assess triggers for adaptive management. The triggers for adaptive management under the occupancy model will be the same as triggers used for rate of population change where there is evidence of a statistically significant decline in the Plan Area spotted owl population.

If both models are validated, the intensive Plan Area demographic spotted owl surveys will be replaced by occupancy surveys. However, Green Diamond will continue spotted owl surveys to protect individual nesting spotted owls, monitor DCAs, and monitor spotted owl fecundity in the Plan Area.

B. Results

1. Site occupancy

In 2024, a total of 88 owl sites were located in the Green Diamond demographic study area (Table 21). Of these sites, 87 were confirmed as occupied and one was confirmed as a possible site. Fifty-eight sites were occupied by pairs, five were occupied by a single owl and 25 were occupied by owls with unknown social status. Thus, a minimum of 146 territorial owls were on the study area in 2024. The annual variation in confirmed and possible owl sites is shown in Table 22.

Of the sites occupied in 2023, 62 were occupied in 2024. Seven sites occupied by pairs in 2023 were occupied by single birds or birds with unknown social status in 2024. Similarly, six sites occupied by single birds or birds of unknown social status in 2023 were occupied by pairs in 2024. Owl sites occupied in 2024 that were not accounted for in 2023 included one possible site,18 perennial sites, two recolonized sites and five newly colonized sites. (Table 23 and Appendix III). Since the adoption of the FHCP in 2019, there were ten sites considered newly colonized in the density study area, and 14 sites considered newly colonized in the demographic study area. A complete list of spotted owl sites located within the demographic study area and/or on the Green Diamond ownership along with matching state master owl numbers and the status of each site during the current reporting period is located in Appendix IV.

2. Reproductive success

Twenty-one pairs at 49 sites (43%) monitored (paired sites with protocol reproductive surveys) during the nesting season attempted nesting (Table 24). Fifteen nesting pairs successfully fledged a minimum of 21 owlets, for a reproductive success rate of 0.43 owlets fledged per monitored site. To date, eight pairs have made 13 nesting attempts in nest boxes. Eight attempts were successful, and ten owlets were fledged.

The trend in the number of owlets fledged per monitored pair from 1992-2024 is shown in Figure 3. The equation of the straight line relating owlets fledged per monitored pair versus year was estimated as: owlets fledged/monitored pair = 9.869-0.0047*year. The slope of the regression line is -0.0047 with a standard error of 0.004. Due to this relatively high annual variation, the significance test that the slope is zero resulted in a t-value of -1.13 with $P = 0.26$.

Figure 3. Trend in the number of owlets fledged per monitored pair, 1992-2024

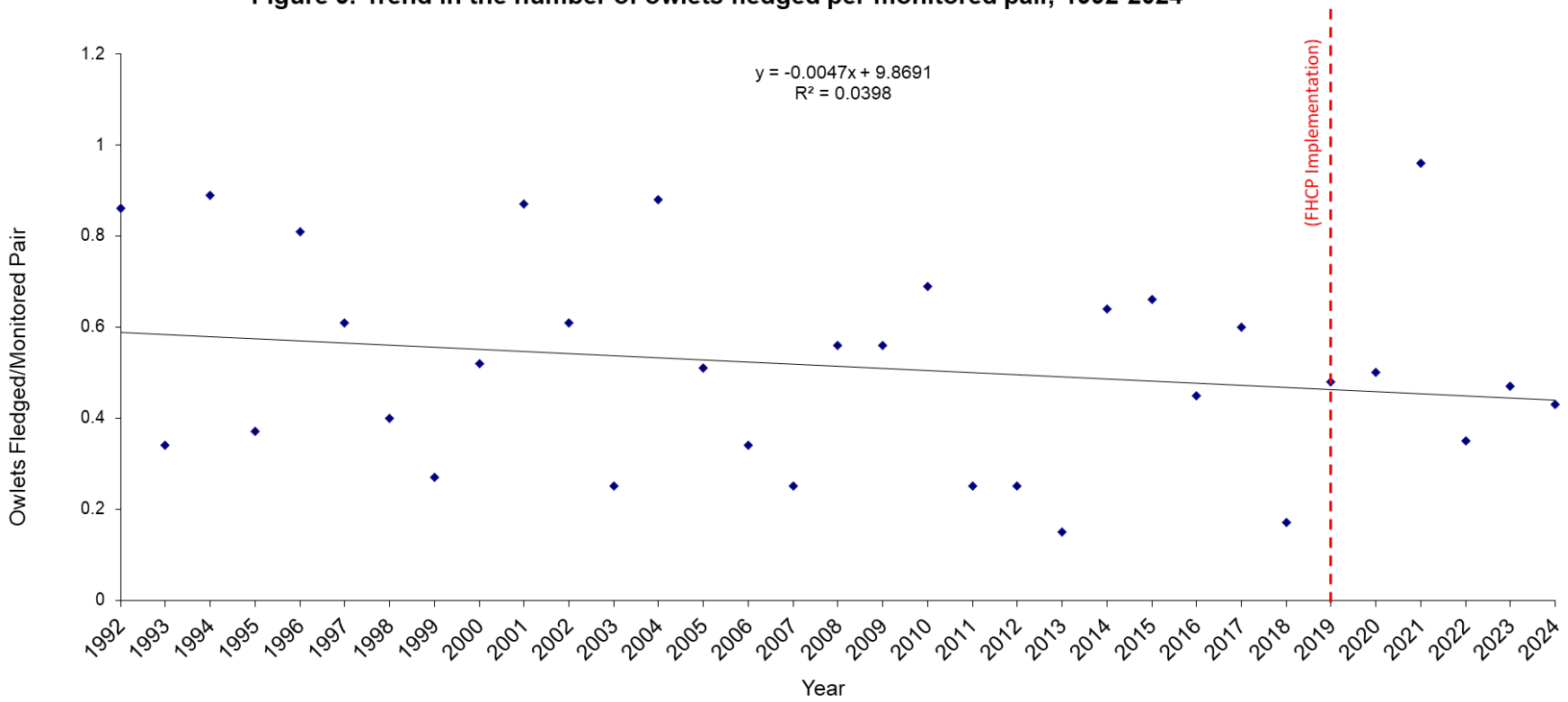

Table 21. Status of northern spotted owls, Green Diamond demographic study area, 2024.

Nesting pairs (n)	Non-nesting pairs (n)	Pair reproductive status unknown (n)	Pair nesting status unknown but reproduction is 0 (n)	Singles (n)	Social status unknown (n)	Total sites (n)	Fledged owlets (n)
21	23	9	5	5	25	88	21

Table 22. Annual variation in northern spotted owl sites, Green Diamond demographic study area 1990-2024.

	Sites		
Year	Confirmed	Possible	Total
1990	86	1	87
1991	142	2	144
1992	171	18	189
1993	185	15	200
1994	183	5	188
1995	163	3	166
1996	155	0	155
1997	167	3	170
1998	186	3	189
1999	168	0	168
2000	163	0	163
2001	161	1	162
2002	156	1	157
2003	146	0	146
2004	141	0	141
2005	123	0	123
2006	128	0	128
2007	107	0	107
2008	99	0	99
2009	116	4	120
2010	117	2	119
2011	125	1	126
2012	125	2	127
2013	126	6	132
2014	122	3	125
2015	131	2	133
2016	119	8	127
2017	98	3	101
2018	95	6	101
	< FHCP Implementation >		
2019	88	2	90
2020	86	9	95
2021	82	4	86
2022	81	4	85
2023	81	6	87
2024	87	1	88

Table 23. Site occupancy of northern spotted owls, Green Diamond demographic study area, 2024.

		Sites Located in 2024			
Pair Status	Sites occupied in 2023	Sites occupied in 2023 and 2024	Sites Newly Colonized	Sites Recolonized	Sites Newly Discovered
Total	87	62	5	2	0

Table 24. Reproductive success of northern spotted owl pairs monitored from 1990-2024, Green Diamond demographic study area.

Year	# Sites monitored	# Pairs not nesting or reproductive	# Pairs nesting	# Pairs successful	# Fledged owlets	# Owlets fledged/ monitored site
1990	56	18	38	29	46	0.82
1991	101	45	56	47	70	0.69
1992	126	39	87	73	109	0.86
1993	92	56	36	20	31	0.34
1994	131	46	85	76	117	0.89
1995	106	59	47	30	39	0.37
1996	117	40	77	62	95	0.81
1997	94	54	40	35	57	0.61
1998	100	49	51	29	40	0.40
1999	111	86	25	20	30	0.27
2000	120	60	60	40	62	0.52
2001	114	40	74	58	99	0.87
2002	112	53	59	43	68	0.61
2003	91	71	20	16	23	0.25
2004	94	34	60	51	83	0.88
2005	98	37	61	32	50	0.51
2006	71	44	27	18	24	0.34
2007	67	55	12	10	17	0.25
2008	77	44	33	26	43	0.56
2009	66	29	37	23	37	0.56
2010	65	26	39	28	45	0.69
2011	75	58	17	12	19	0.25
2012	63	48	15	10	16	0.25
2013	80	67	13	10	12	0.15
2014	84	48	36	31	54	0.64
2015	74	42	32	29	49	0.66
2016	58	39	21	15	26	0.45
2017	52	28	24	19	31	0.60
2018	58	46	12	7	10	0.17
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2019	48	26	22	14	23	0.48
2020	40	19	21	15	20	0.50
2021	49	15	36	28	47	0.96
2022	48	29	24	13	17	0.35
2023	47	24	23	14	22	0.47
2024	49	28	21	15	21	0.43
Overall Mean						0.55

3. Spotted owl banding

Six adult, four subadult, and zero juvenile spotted owls were captured and banded on the Green Diamond study area in 2024 (Table 25). Since FHCP implementation, 67 (79%) adults and subadults, and 18 (21%) juveniles, for a total of 85 owls have been banded (Table 25).

One bird previously banded as a juvenile was recaptured in 2024. Recapture rates for juveniles banded on the Green Diamond study area from 2019 through 2024 are reported in Table 26. More detailed information on the individual spotted owls banded, recaptured or resighted in 2024 can be found in Appendix V.

4. Juvenile dispersal

Thirteen juveniles were known to have dispersed within or to the Green Diamond study area between 2019 and 2024 including three juveniles originally banded on the Hoopa study area. Dispersal distance ranged from 1.4 to 24.4 miles, with a mean of 9.0 miles. Male dispersal distances ranged from 2.6 to 19.8 miles, with a mean of 7.5 miles. Females dispersed an average of 11.5 miles with a range of 1.4 to 24.4 miles.

Table 25. Age and gender of northern spotted owls banded on the Green Diamond study area since FHCP implementation (2019 – 2024).

		Age				
Years	Gender	Adults	Subadults	Juveniles	Unknown	Total
2019 - 2023	males	20	7	-	2	29
	females	21	7	-	-	28
	unknown	0	0	18	0	18
Subtotal		41	14	18	2	75
2024	males	3	2	-	0	5
	females	3	2	-	-	5
	unknown	0	0	0	0	0
Subtotal		6	4	0	0	10
Total		47	18	18	2	85

Table 26. Recaptures of juveniles banded on the Green Diamond study area 2019-2024.

Cohort year	# Juveniles banded	Recapture year and #					Total	% Recapture
		2020	2021	2022	2023	2024		
2019	0	0	0	0	0	0	0	0.0
2020	4		0	0	0	0	0	0.0
2021	12			2	0	1	3	25.0
2022	2				0	0	0	0.0
2023	0					0	0	0.0
Total	18	0	0	2	0	1	3	16.7

5. Turnover

a. Missing owls

In 2024, twelve non-juvenile territorial owls (five males and seven females) were found at sites different from those that they occupied in 2023 (Table 27). An additional 12 banded non-juvenile territorial owls present in 2023 were not resighted in 2024 (Table 27).

b. New recruits

In 2024, there were ten new recruits of known age class into the territorial population. The cumulative total since FHCP implementation (2019-2024) of new recruits of known age class was 22 subadults (29%) and 55 adults (71%) (Table 28).

6. Owl density

An estimated 368,406 acres (97.9%) of Green Diamond Resource Company timberlands have been surveyed to date. This acreage includes numerous blocks of land that are typically surveyed for owls but are too small and isolated to use in our density estimates. Green Diamond's California timberlands ownership increased in 2019 through 2022 with the acquisition of 9,878 acres in southern Humboldt County. Of the newly acquired lands, 9,489 acres were surveyed for owls but are not enrolled in the FHCP and not included in the density study for the reporting year. For estimating density, we used three large contiguous blocks of land; one in the northern area and two in the southern area. The northern study area had six owl sites occupied by eight owls within 123,753 acres, or 0.06 territorial owls/1000 acres. The southern study area had 67 owl sites occupied by at least 110 owls within 165,650 acres, or 0.66 territorial owls/1000 acres. Thus, a total of 73 owl sites occupied by a minimum of 118 owls were within 289,403 acres, for an overall density of 0.41 territorial owls/1000 acres. The total number of occupied spotted owl sites on the density study area is shown in Figure 4. In 1998, Green Diamond acquired approximately 70,000 acres of timberland in Humboldt County. This area was included in the density study area as a one-time expansion. The increase in the number of sites in 1998 as shown in Figure 4 reflects this expansion. Similarly, from 2010 through 2017 Green Diamond disposed of approximately 27,600 acres of timberlands within the density study area. However, this decrease in the number of occupied sites was offset each year by the number of newly colonized and recolonized sites within the remaining density study area.

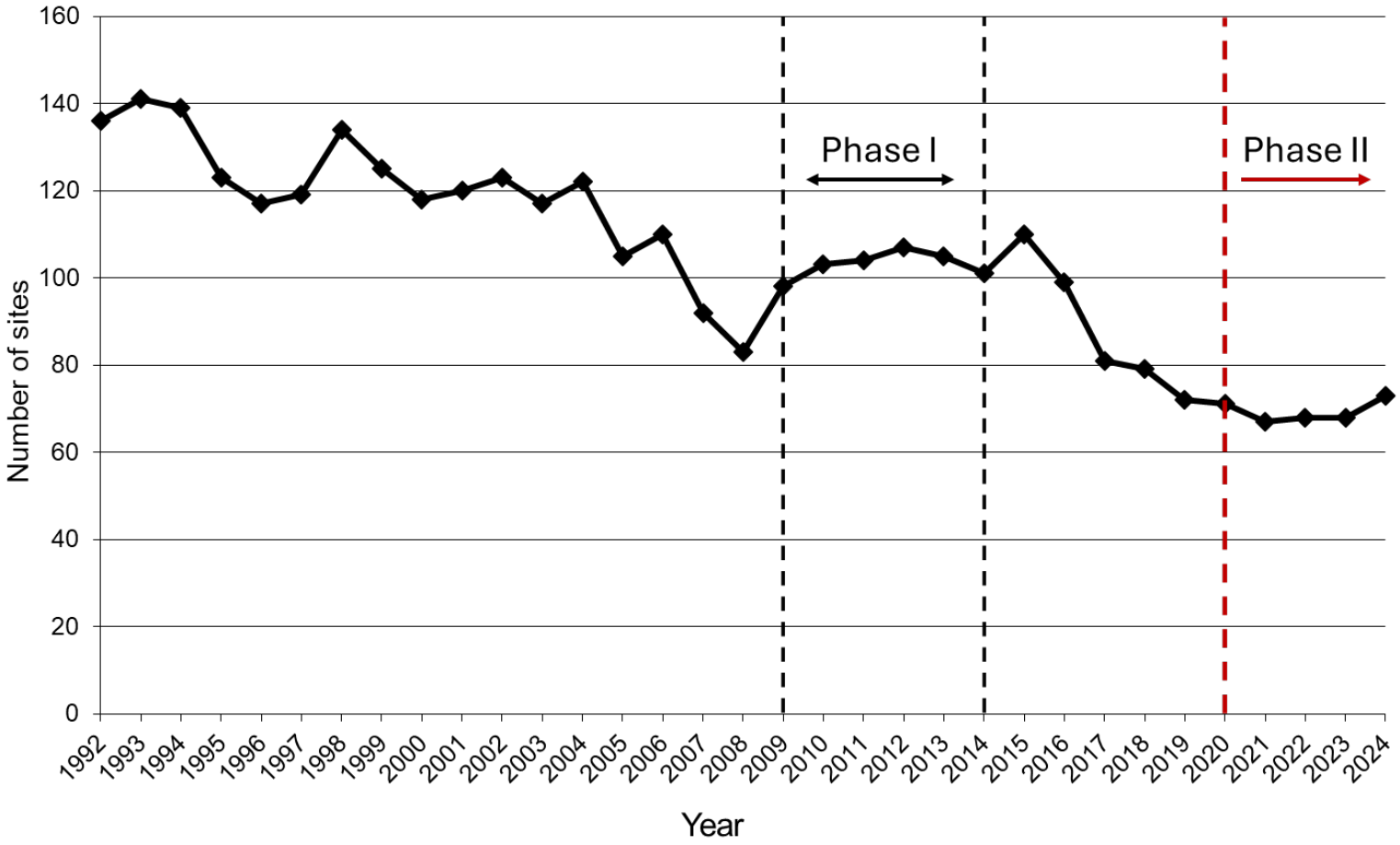
Table 27. Turnover rates of individual northern spotted owls, Green Diamond study area, 2024.

Gender	Banded or Resighted in Previous Year and Resighted in Current Year n (%)	Banded or Resighted in Previous Year Not Resighted in Current Year n (%)	Resighted at Site Different from that of Previous Year n
males	38	6	5
females	36	6	7
Total	74 (86)	12 (14)	12

Table 28. Gender and age class of northern spotted owl new recruits, Green Diamond study area since FHCP implementation (2019-2024).

		Age			
Year	Gender	Subadults n (%)	Adults n (%)	Unknown n(%)	Total (n)
2019-2023	Males	10	25	1	36
	females	8	24	0	32
	unknown	0	0	1	1
	subtotal	18 (26)	49 (71)	2 (3)	69
2024	males	2	3	0	5
	females	2	3	0	5
	unknown	0	0	0	0
	subtotal	4 (40)	6 (60)	0 (0)	10
Total		22 (28)	55 (70)	2 (2)	79

Figure 4. Total number of occupied spotted owl sites on Green Diamond density study area, 1992-2024



7. Demography

Green Diamond initiated mark-recapture studies throughout its ownership in 1990 to estimate key demographic parameters and trends in the population. Along with other range-wide demographic studies of the northern spotted owl, Green Diamond participated in five meta-analyses in 1998, 2004, 2009, 2014, and 2020. The most recent published meta-analysis (Franklin et al. 2021) analyzed Green Diamond data from 1990-2018. As a result of the Phase I barred owl removal study 2009 - 2014 (see Diller et al. 2016), data from areas where barred owls were removed were censored from the analysis beginning in the year of first removal and including all subsequent years regardless of whether removals were later discontinued.

Fecundity was estimated for adult northern spotted owls (≥3 years) for 11 study areas from 1993-2018 using reproductive survey data. The best model included the additive fixed effects of ecological region (state and major forest type), quadratic relationship of time, annual estimates of barred owl occupancy within a spotted owl territory, and the oscillating even-odd year time effect. Estimates indicated that years with higher reproductive output tend to be followed by years with low reproductive output, and fecundity decreased with increased proportion of spotted owl territories where barred owls were detected.

Apparent survival, recruitment rates, and rates of population change were estimated from mark-recapture data. Apparent survival estimates for all 11 study areas indicated a period of gradual decline since 1993 that was followed by a notable steep decline after 2011 and a strong negative effect of barred owl occupancy on apparent spotted owl survival. Recruitment rates declined across all study areas as the proportion of spotted owl territories occupied by barred owls increased.

The annual finite rate of northern spotted owl population change (lambda) was estimated using data from 1993-2018 for all study areas except Hoopa, which only included data through 2012 when barred owl removals began over the entire study area. Annual rate of population change estimates for all study areas indicated a declining population with annual population declines of 2-9%.

The trend in estimates of the realized population change for all study areas (1995-2017) indicated that the population of northern spotted owls in 2017 was smaller than in 1995. Estimated population sizes in 2017 had declined by >80% in Washington, almost 75% in Oregon, and ≥30% in California. For the California study areas, Northwestern California declined by about 50%, Hoopa declined by about 30%, and Green Diamond's population had declined by >60%.

Franklin et al. 2021 also investigated the co-occurrence dynamics of northern spotted owls and barred owls using two-species occupancy models to estimate occupancy, local extinction rates, and colonization rates of northern spotted owl territories based on

detection/non-detection data for northern spotted owls and barred owls (all study areas 1993-2018, excluding territories where barred owl removals occurred). Results indicated that northern spotted owl territory occupancy declined in all study areas coincident with increasing barred owl occupancy. The results also indicated a strong positive association between the presence of barred owls and northern spotted owl territory extinction rates and a strong negative association between barred owl presence and northern spotted owl colonization.

Since the previous meta-analysis, northern spotted owls continued to experience significant declines range wide in areas without barred owl management. Since 1995, it was estimated that northern spotted owls on the Green Diamond study area declined by greater than 60%. However, these estimates were derived using less than half of the monitored spotted owl territories due to data being censored for areas with prior barred owl removals. Study area specific analyses are needed to understand current population trends on the Green Diamond study area subsequent to the Phase I experiment and after initiation of the Phase II barred owl removal experiment. The Phase II barred owl removal experiment was initiated in 2020, and once additional years of data are collected, in-depth study area specific analyses will be conducted and presented in future annual reports.

8. Barred owls

During the reporting period (September 1, 2023 - August 31, 2024), barred owls were detected during 554 surveys. From March 1 through August 31 of 2024 barred owls were detected during 362 surveys. Since each site (survey station, spotted owl territory, or barred owl territory) is surveyed multiple times throughout the season and individual barred owls are not marked, it is difficult to estimate a minimum number of barred owls detected during a given season. The number of detections at the same site or area ranged from one to 16 (mean = 3.36). From these detections (March 1 through August 31, 2024), we estimated a minimum of 115 barred owl territories within the density study area and a minimum of 152 barred owl territories within the demographic study area.

Since initiation of Phase II, 834 barred owls have been removed from 235 sites. During the reporting period, 135 barred owls were removed from 74 currently or previously occupied spotted owl sites and 35 barred owls were removed from sites without previous spotted owl occupancy. Pairs were successfully removed from sites on 33 occasions. During the 2024 reporting period, 93 (54.7%) of removed barred owls were adults and 77 (45.3%) were subadults (Figure 5). Two barred-spotted owl hybrids have been removed since the initiation of Phase II.

Twenty barred owls were removed from 14 unique Dynamic Core Area (DCA) or Adaptive Management DCA (AMDCA) sites (Chapter VI) during the reporting period. The number of barred owls removed from an individual Owl Management Unit (OMU) during the reporting period ranged from five to 36 (Table 29).

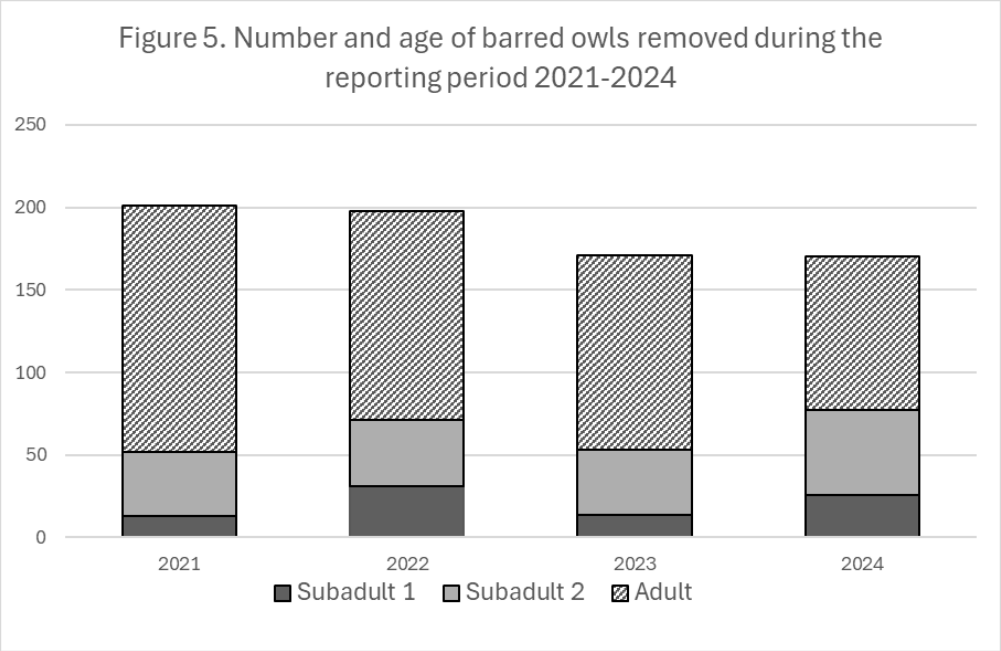


Table 29. Number of barred owls removed within the Owl Management Units (OMUs) during the reporting period by year.

Owl Management Unit	2020	2021	2022	2023	2024	Total
Smith	0	16	17	12	24	69
Wilson, Hunter, Terwer Creeks	0	36	37	18	26	117
McGarvey, Ah Pah, Surpur Creeks	0	11	15	18	16	60
Tectah, Mettah, Roach, Tully Creeks	0	41	23	33	18	115
Maple Creek	0	4	3	6	5	18
Redwood Creek	14	25	25	32	25	121
Little River	0	3	5	5	11	24
North Fork Mad River	16	12	10	5	7	50
Lower Mad River, Jacoby Creek	9	28	25	25	19	106
Upper Mad River, Upper Redwood Creek	6	20	19	5	7	57
Humboldt Bay, Eel River	0	5	19	12	11	47
Total	45	201	198	171	169	784

The number of spotted owl sites located on the Green Diamond demographic study area that were considered to be influenced by barred owls (barred owl detections within 0.5-mile) increased from 2011 through 2020 but has decreased since the implementation of

Phase II (Figure 6). Since initiation of Phase Two, several case studies have been observed which potentially represent the positive effect barred owl removal has for spotted owls. Since Phase II began several spotted owl territories previously occupied by barred owls have had spotted owls reoccupy the site. (Table 30).

Figure 6. Percent of spotted owl sites influenced by barred owls on Green Diamond demography study area, 2011 - 2024

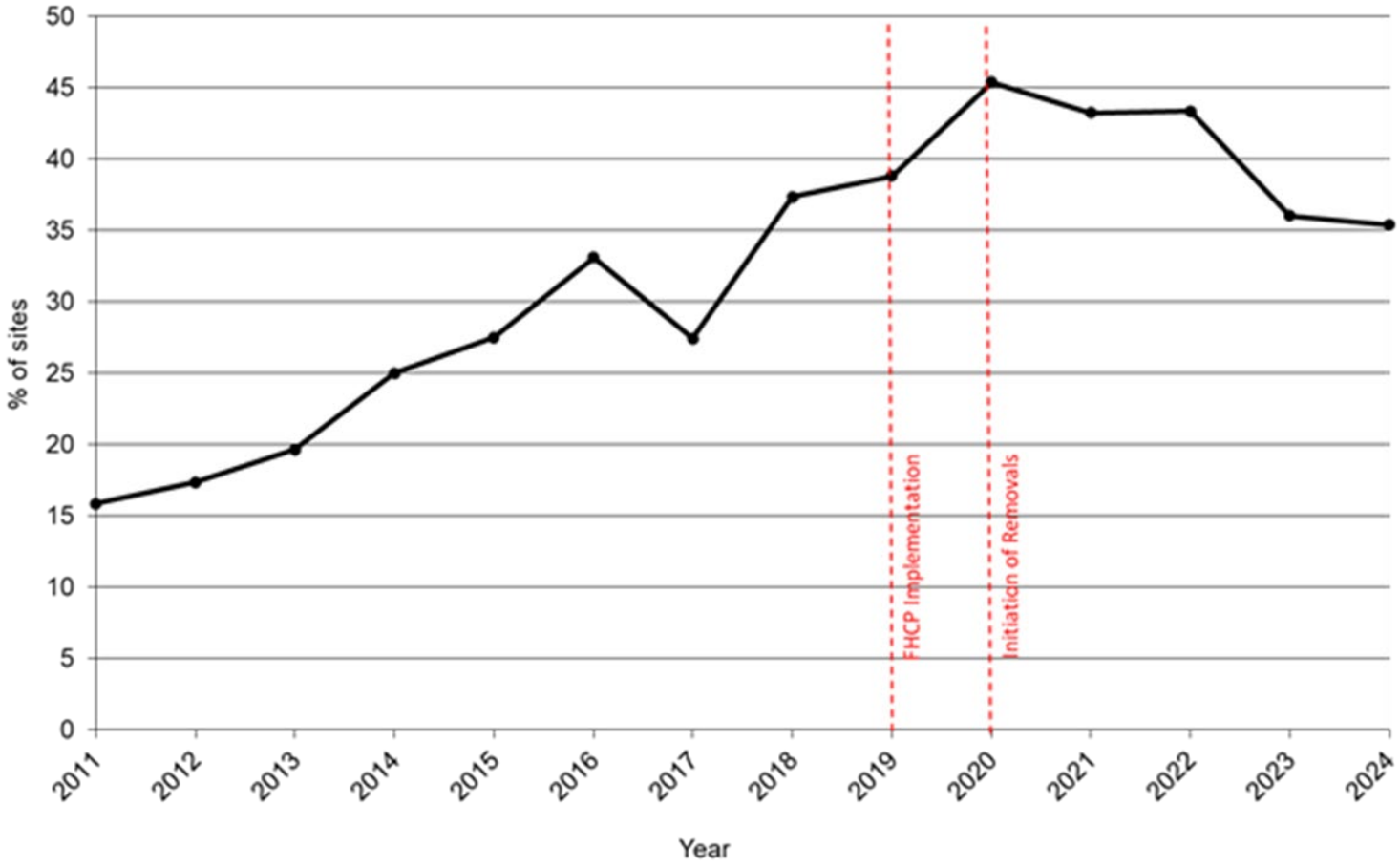


Table 30. Spotted owl site status before and after barred owl removals.

Site	Site status prior to removal	Removal date	Spotted owl detection date post-removal
Old 299 #1	Vacant	3/18/2020	5/19/2020
North Goodman Prairie	Unoccupied	3/26/2020	4/02/2020
4851	Unoccupied	3/24/2020	7/13/2020
4128	Unoccupied	9/03/2020	4/09/2021
Lower Roach	Vacant	3/22/2021	5/06/2021
Lord Ellis Creek	Unoccupied	4/28/2021	7/28/2021
Lord Ellis North	Unoccupied	10/07/2020	4/09/2021
Devils Creek	Unoccupied	3/29/2020	4/29/2021
SF Bald Mountain Creek	Unoccupied	1/25/2021	3/26/2021
Tree Farm	Unoccupied	9/1/2021	8/24/2022
Camp Gate North	Unoccupied	3/25/2020	6/9/2021
Denman Creek	Unoccupied	3/10/2021	4/19/2022
4076	Unoccupied	3/18/2022	4/12/2023
Lupton Creek #2	Unoccupied	2/27/2023	5/3/2023
Boulder Creek #2	Unoccupied	10/8/2020	6/5/2023
Garrett South	Unoccupied	3/27/2020	6/27/2023
7000	Unoccupied	3/30/2020	7/10/2023
Upper Mynot Creek	Unoccupied	10/15/2020	7/13/2023
Dick Bird	Unoccupied	10/7/2020	4/18/2024
Beaver Creek	Unoccupied	3/30/2021	4/30/2024
Mettah Forks	Unoccupied	3/16/2021	6/5/2024
Camp Gate	Unoccupied	9/8/2020	5/31/2024
Boulder Creek #1	Unoccupied	3/25/2020	4/9/2024

In addition to spotted owls reoccupying sites where barred owls have been removed, spotted owl pairs that established activity centers on the edge of their territory after being displaced by barred owls were observed reoccupying and producing young within their historic nesting core areas after barred owls were removed. These observations are anecdotal and future analyses are pending.

From 2010 through 2024, Green Diamond continued to collect information on the impacts of barred owls on spotted owl apparent survival, fecundity, and occupancy. Results from the detailed analysis comparing the spotted owl vital rates between the treatment and control study areas from 2010 through 2014 are published and available in Diller et al. 2016. Results from the Phase II will be available in future annual reports.

9. Habitat and occupancy modeling

Results for spotted owl habitat and occupancy modeling will be made available in future annual reports.

C. Discussion

The trend in the total number of owl sites (occupied and possible) in the density study area provided the most accurate estimate of the real trend in total owl sites for the entire ownership, because peripheral areas tended to have less consistent survey effort. The apparent initial increase from 1990-1993 was the result of a "learning curve" associated with field crews becoming familiar with the study area and documenting all perennial owl sites. The peak in total owl sites occurred in 1993-1994 followed by a decline until 1998, a relatively stable period through 2004, and a further decline from 2004 through 2008. This was followed by an increase of sites from 2009 through 2015 and a decline since 2015. In 1998, the apparent increase in sites was a result of an expansion in the size of the density study area after a land acquisition and a resultant increase in sites. The increase in sites from 2009 to 2015 did not result from any changes in the study area, but the average number of recolonized, newly colonized, and newly discovered sites in those years (average = 9.1) was greater than the average from 1996 through 2008 (average = 4.2). The removal of barred owls within portions of the study area was the most likely factor influencing the increase in the number of recolonized spotted owl sites. The decrease in the number of spotted owl sites since 2015 is likely associated with an increasing number of barred owl sites within the density study area. Although the total number of occupied sites within the density study area declined in 2021 and 2022 compared with the 2015 reporting period, a higher number of sites occupied by pairs were observed compared to the 2019 and 2020 reporting periods. Since initiation of property-wide barred owl removals in 2021, the total number of occupied sites within the density study area has continued to increase.

The negative trend in number of owlets fledged per monitored pair (fecundity), although not statistically significant, is one of several potential factors that could have contributed to the overall decline in spotted owl sites during the study period. The decline is also partially due to the net displacements that occurred during this time period under the incidental take permit for the 1992 Northern Spotted Owl HCP and potential displacements that occurred under the FHCP. However, the number of owl sites has declined similarly in areas with and without significant timber harvest indicating other factors were involved. Additional analyses using mark-recapture data with covariates such as weather, habitat elements, barred owls and timber harvest are necessary to assess the factors responsible for the trend in owl sites. The direct competitive interactions with the barred owl and recent disease factors such as West Nile virus may further contribute to declining trends in the spotted owl population that are not easily identified. The results from the 2020 meta-analysis support the hypothesis that reduced fecundity is likely the result of increased competition with barred owls, but other factors such as habitat and climactic variables have also been shown to influence spotted owl fecundity (Franklin et al. 2021). Although additional years of data are needed, the increase in naïve paired occupancy and fecundity since 2020 may be the result of property-wide barred owl removals initiated in 2020.

The fundamental premise of the spotted owl FHCP is that owl sites lost through timber harvest will be replaced in other areas as stands mature and become suitable for occupancy by owls. However, simply tracking stands transitioning from one age class to another may not adequately predict suitable owl habitat on the landscape, if a high proportion of stands have recently matured into age classes defined as suitable owl habitat. Habitat used by spotted owls (whether foraging, roosting or nesting) develops gradually through time and a simplistic accounting of the proportion of the landscape in different age classes of forest may not accurately reflect the amount of habitat available to spotted owls. The use of spatially explicit models incorporating foraging and nesting site selection along with demographic parameters will provide insight into the matrix of habitat ages, types and components necessary to support owls on the landscape and further refine our definitions of owl habitat. Continued monitoring of the population and analyses of how timber harvest has affected the owl population will lend insight to future management of the forests within Green Diamond's ownership.

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VIII. Fisher Studies

The fundamental premise in the FHCP for fisher conservation is ample foraging habitat and potential resting and denning habitat will increase through time as the riparian management zones and geologic protection zones age and continue to develop older forest characteristics. Green Diamond will develop an occupancy model that will be used to estimate the probability that a fisher will occupy (i.e., foraging or moving through) a specific point in the Plan Area. Validation or initial refinement of this fisher occupancy model will be completed within five years of FHCP approval and will rely on data collected using non-invasive remote camera survey techniques.

A. Methods

1. Occupancy Surveys

Green Diamond established a randomly located sampling frame for remote camera stations across the Plan Area. The sampling frame consisted of baited remote camera stations centered at a 4-km grid spacing. Each camera station (sampling unit) consisted of one or two cameras located within 200 meters of the grid center point resulting in 91 sampling units (Figure 7).

The sampling period was October through March for each year the surveys occurred. In order to estimate fisher occupancy, all sampling units were surveyed in each of the first two sampling periods (October 2018 - March 2019 and October 2019 - March 2020). After the first two complete sampling periods, Green Diamond will continue to monitor fisher occupancy by conducting non-invasive surveys on at least one-half of the Plan Area every five years such that a complete survey would occur by year ten. This will permit either a validation or refinement of the fisher occupancy model at 10-year intervals. The survey grid was divided into five sampling blocks to sample all stations with a logistically feasible approach while accounting for spatial issues and comparisons among the various watersheds. Sampling blocks were randomly selected to determine sampling order. Sampling order in year one remained the sampling order in subsequent survey years to allow for comparisons and account for seasonal variation in detection rates. All sample units within a sampling block were surveyed simultaneously.

Green Diamond deployed high-end Reconyx brand cameras (Reconyx Inc., Holmen WI, USA) at each sampling station. Models included first generation Hyperfire HC500, HC600, PC800, PC900, and second generation Hyperfire HP2X. Camera stations were baited with two raw chicken drumsticks and commercial trapping lure (Caven's Gusto Lure, Minnesota Trapline Products, Pennock MN) secured to a tree within 5 – 15 feet of the camera. Cameras were deployed for a minimum of 21 days and were checked and rebaited weekly.

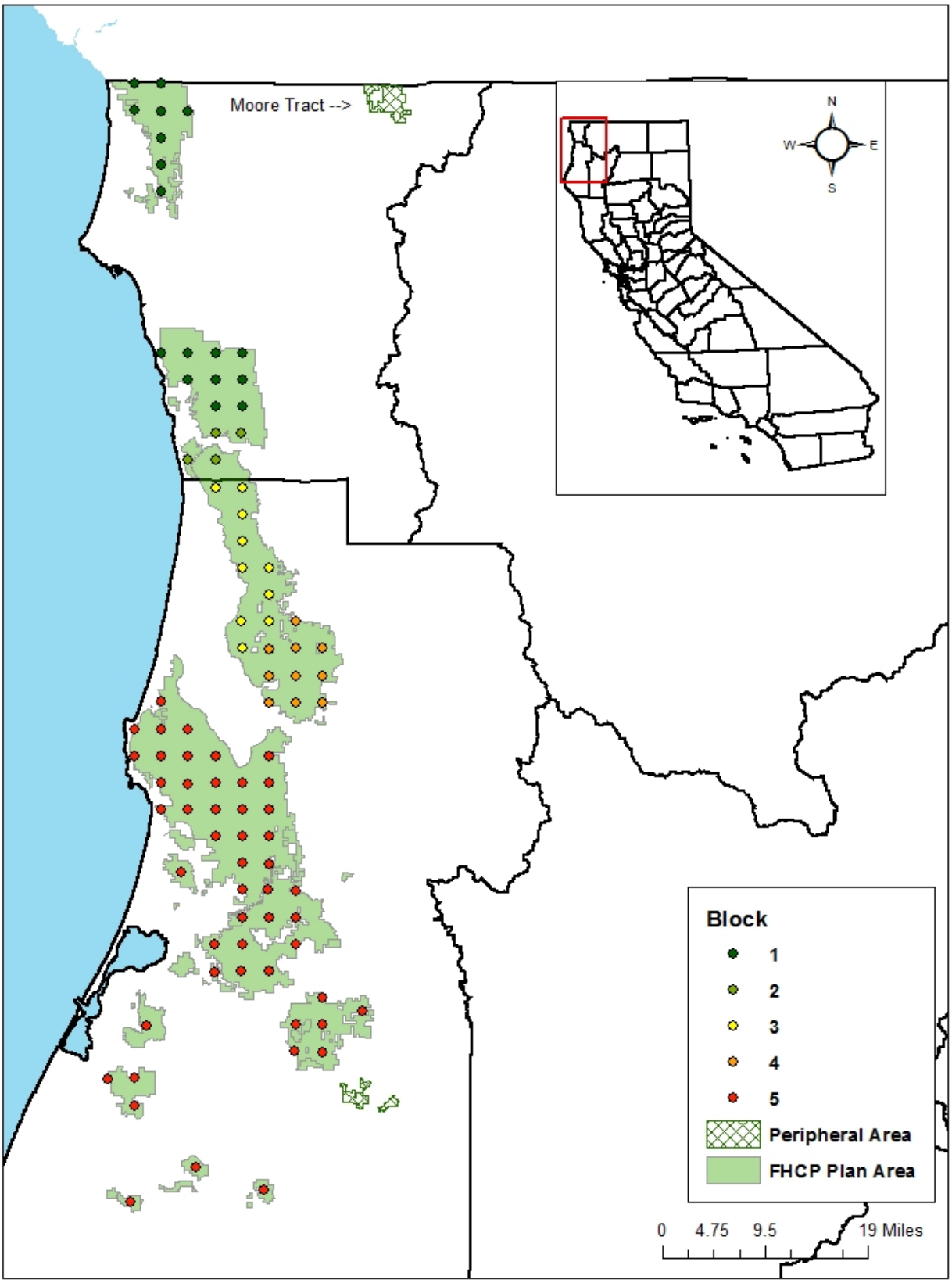

Figure 7. Location of remote camera stations by block within the Plan Area and Peripheral Area (2018/2019 and 2019/2020 sampling periods).

2. Occupancy Modeling

Initial refinement of the occupancy model occurred after completing two sessions of occupancy surveys (i.e., session one = October 2018 – March 2019 and session two = October 2019 – March 2020). Detailed methods were provided in the 2022 report.

Validation or further refinement of this model will rely on additional non-invasive remote camera surveys. Validation of the fisher occupancy model will be based on demonstrating high fisher occupancy ($\Psi>0.6$) in areas that are predicted to have high probability of occupancy. In other words, determining whether or not fisher are found at specific areas where the model predicts occupancy to be high. Green Diamond will estimate occupancy rates for at least half of the Plan Area at five-year intervals so that the entire Plan Area is surveyed every 10 years. If statistically significant ($p \leq 0.05$) declines in fisher occupancy rates are observed for five years or more in all or a major portion of the Plan Area, Green Diamond will collaborate with the Service to assess the cause of the decline and propose corrective actions as necessary following the procedures described under Adaptive Management.

3. Water Tank Surveys

Water tanks within the Plan Area were inspected annually and measures were taken to prevent marten from becoming entrapped. Annual inspections determined if openings greater than two inches existed, and if the openings were secure and effective in excluding wildlife. Tanks are composed of either plastic or steel material. Modern plastic tanks generally have round, threaded openings for use in PVC plumbing. These types of tanks use modern, standard fittings which can be used interchangeably. Plastic tanks usually require little to no exclusion efforts. Steel tanks generally date from the early 1900's to the 1960's. These tanks use widely varying types of fittings and can have openings created from cutting torches. Exclusion techniques vary and require specialized tools. A powder fastener is often utilized to drive nails into the steel surfaces of the tank to fasten mesh around openings. The primary issue with using steel mesh is oxidation which can be mitigated by applying a coat of spray paint. Since 2012, this technique has been monitored and proven to be a long-lasting repair method.

4. Incidental observations

Company employees that frequently conduct field work throughout the Plan Area received training on species identification and reporting of incidental observations of listed or sensitive wildlife species, including fishers. All incidental observations of fisher were vetted by Green Diamond's biological staff and records maintained in a spatial database.

5. Prevention of rodenticide use

Anticoagulant rodenticide poisoning has been identified as a threat to the Covered Species, including fisher. Anticoagulant rodenticides are used to eradicate or suppress rodent pest populations in illegal marijuana cultivation sites to minimize economic losses. Exposure to anticoagulant rodenticides can cause direct mortality and potentially increase the risk of predation or other diseases. During the current reporting period, measures were taken to discourage unauthorized marijuana cultivation and associated rodenticide use in the Plan Area. In addition to maintaining a system of controlled access for the Plan Area, security patrols were conducted to detect cultivation sites, and if detected, eradication efforts were conducted in coordination with the Sheriff's Department.

6. Den Sites

If an active den was located, the den structure received a 0.25-mile radius no-harvest buffer to protect reproducing female fisher and their young from disturbance. The disturbance buffer remained in place until a determination was made that the den had been abandoned or fisher kits had been moved to another den more than 0.25 miles from the harvest area. Any confirmed den trees were retained even after they were no longer active.

B. Results

1. Occupancy Surveys

Occupancy surveys were not conducted during the current reporting period.

2. Occupancy Modeling

No analyses occurred during the current reporting period, but results from the initial modeling effort were included in a comprehensive report submitted with the 2022 annual report.

3. Water Tank Surveys

Ninety-two water tanks were located within the Plan Area in 2024 (Figure 8, Appendix VI). All 92 tanks were inspected for damage or openings, and barriers were assessed for continued reliability. Fifty-five of the 92 tanks had openings repaired in previous years, and 50 were still reliable at preventing entry by fishers. Eight tanks were found to have new openings or damage to previous patches, and all were repaired. Thirty-five of the 92 tanks did not require exclusion installations in this or a previous reporting period. One tank (4100) is known to be a historic Vaux's swift nesting structure has an opening on the side of the tank near the top that was not repaired. A board was placed in the opening that would allow any trapped animals to escape. No fisher, marten, or other remains were identified in or around the 92 tanks.

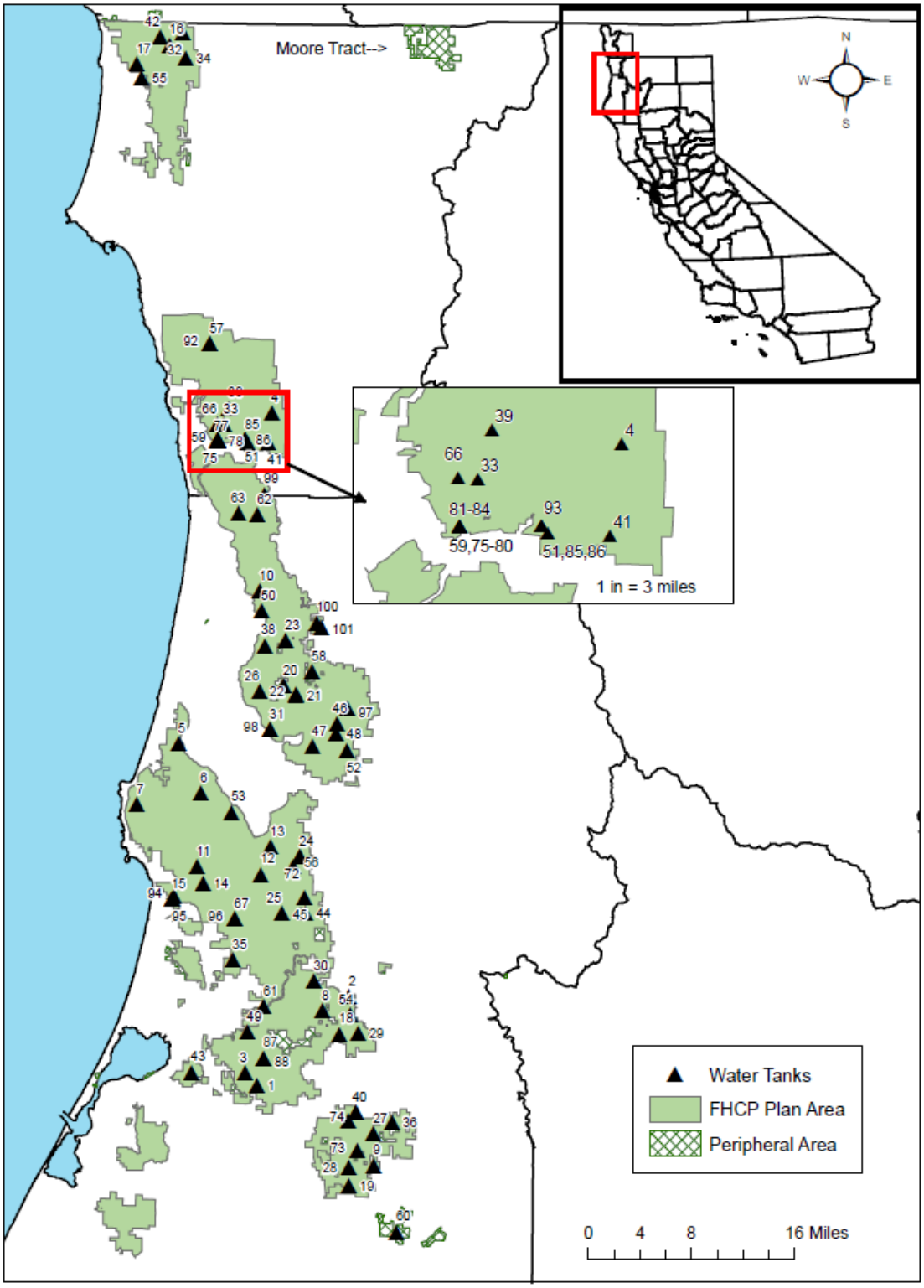

Figure 8. Water tank locations within the Plan Area and Peripheral Area.

4. Incidental observations

One incidental fisher observation occurred during the current reporting period (Figure 9).

5. Prevention of rodenticide use

No trespass cultivation sites were identified within the Plan Area during the current reporting period.

6. Den Sites

No active den sites were located during the current reporting period.

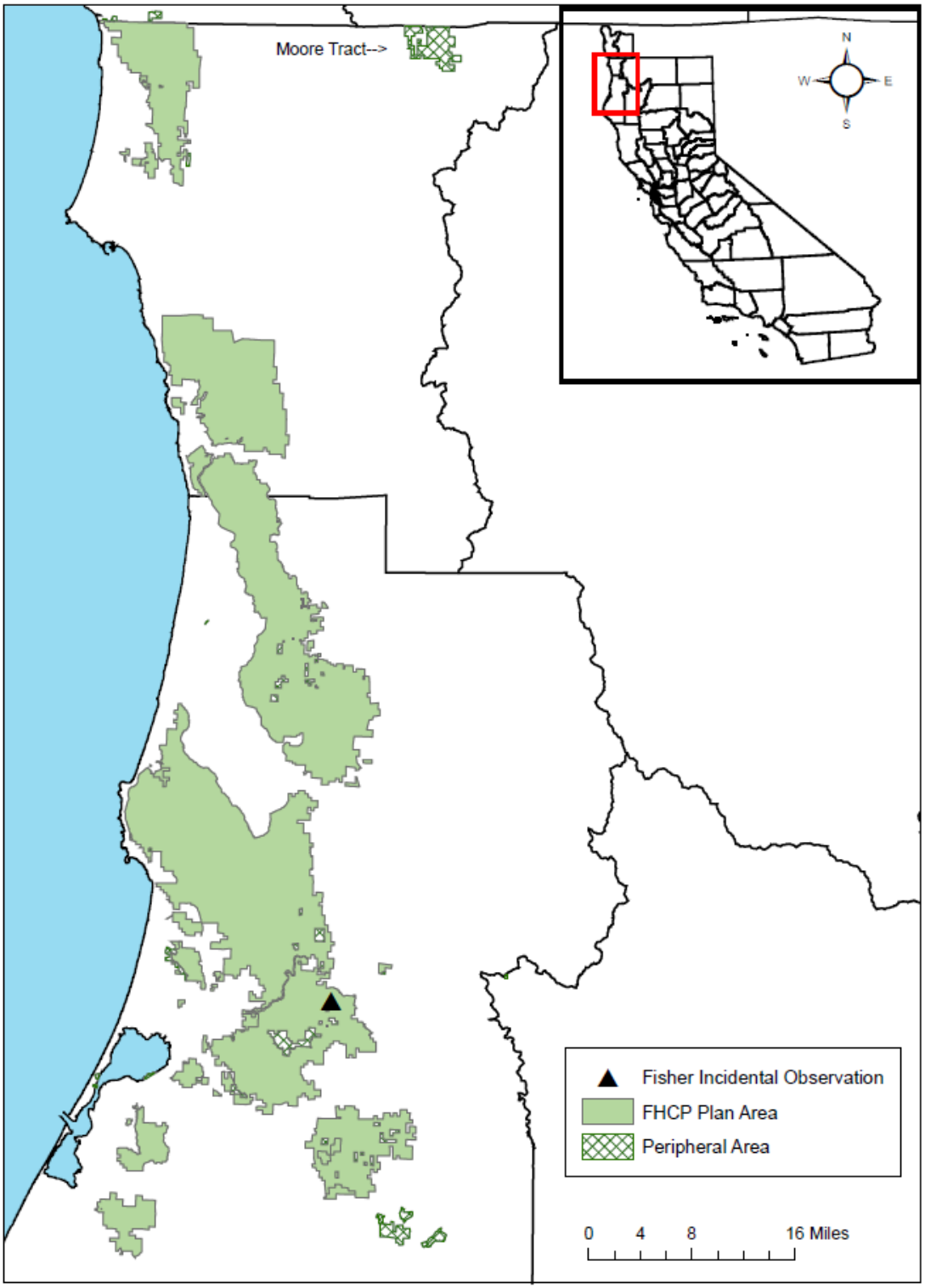

Figure 9. Incidental observations of fisher within the Plan Area during the current reporting period.

C. Discussion

Green Diamond will use the results from 2024-2025 sampling period to refine the occupancy model, and the results of this analysis will be available in a future annual report. Based on the initial occupancy modeling, detection probability did not vary across sites. The top 21 models for occupancy included covariates for trapping session and latitude. Trapping session, latitude, hardwood basal area, and redwood basal area (at the 4km scale) were statistically significant covariates, but all of the top 21 models had similar values for Area Under the Curve. Fisher occupancy remained high across the Plan Area and appears to be increasing based on area-wide surveys conducted in 1991-1995 and 2004-2005 when compared to this study. Although additional surveys will continue to improve the model predictions, retention of hardwoods, retention of rest and den trees, and the development of later seral habitat to help promote habitat heterogeneity will continue to maintain or increase habitat for fisher across the Plan Area.

All active and historic water tanks were inspected during the current reporting period, and exclusion methods appear to be successful at preventing entrapment and drowning of fisher and other species. Water tank inspections will continue in subsequent years to ensure exclusion methods continue to be effective.

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IX. Tree Vole Studies

Direct survey methods for tree voles were not incorporated in the FHCP due to the high cost associated with stand searches and climbing trees to confirm vole nests and estimate occupancy. Therefore, the primary approach to monitoring property-wide trends in tree vole populations will be through evaluating presence of tree voles in spotted owl pellets collected during demographic monitoring. An occupancy model was developed to detect changes in tree voles in spotted owl pellets. Green Diamond will also continue to investigate alternative approaches to monitoring tree voles and supplementing spotted owl pellet collections. In addition to more rigorous monitoring methods, Green Diamond also maintains an incidental observations database for several listed or sensitive wildlife species, including tree voles. The following sections summarize the occupancy surveys and incidental observations for tree voles.

A. Methods

1. Occupancy surveys

Pellets were collected during demographic surveys at known, occupied spotted owl sites throughout the Plan Area during the spotted owl breeding season for the current reporting period. Visual searches were conducted around known nest trees and roost trees and any other areas within the stand where whitewash was present. Since pellets tend to break apart upon falling to or hitting the ground, intact pellets and portions of pellets were collected. All pellets and portions of pellets collected during a single visit to a spotted owl site were collected in the same small plastic bag, labeled with the date and associated spotted owl site name, and frozen. Pellets were dissected to determine if the contents contained tree vole bones (genus *Arborimus*). Historic pellet samples were utilized to develop initial occupancy modeling methods, and owl pellets collected from 2019 through the current reporting period will be utilized in future occupancy modeling.

2. Occupancy analysis

Initial tree vole occupancy modeling was conducted in 2022, and comprehensive methods were included in the 2022 annual report. Updates or refinements to the initial model will be made in a future reporting period.

3. Incidental observations

Company employees that frequently conduct field work throughout the Plan Area received training on species identification and reporting of incidental observations of listed or sensitive wildlife species including tree voles. All incidental observations of tree voles or tree vole nests were vetted by Green Diamond's biological staff and records maintained in a spatial database.

B. Results

1. Occupancy surveys

In 2024, 116 pellet samples from 55 different spotted owl sites were collected and dissected. Thirty-five of these samples from 23 different sites contained bones from at least 80 individuals within the Arvicolinae subfamily. Of these 80 individuals, 64 were identified as *Arborimus* sp., seven were identified as *Microtus sp.*, and the genus of nine individuals could not be identified. The 64 *Arborimus* individuals were associated with 20 unique spotted owl sites (Table 31). Nine additional pellet samples were collected from unoccupied sites or at locations not associated with active owl sites. Of these additional samples Arborimus sp. was found in one sample. For some samples, poor skull and mandible condition prevented taxonomic classification to genus (*Arborimus* versus other sympatric voles) utilizing basic skull/teeth morphology resulting in the possibility that there were more tree voles in our samples than reported. Further classification of the *Arborimus* genus (*A. pomo* and *A. longicaudus* vs. *A. albipes*) has proven difficult in the absence of genetic confirmation in the past, so we did not differentiate between the three *Arborimus* species in this report. Further results on tree vole occupancy will be presented in a future report.

Table 31. Number of individuals classified as Arvicolinae and *Arborimus* sp. in pellet samples collected from Owl Management Units within the Green Diamond study area in 2024.

Owl Management Unit Name	# of Samples	# of Arvicolinae individuals	# of *Arborimus* individuals
Humboldt Bay – Eel River	26	18	15
Little River	0	0	0
Lower Mad River – Fickle Hill	39	34	30
Maple Creek	0	0	0
McGarvey, Tarup, Ah Pah and Surpur Creeks	0	0	0
North Fork Mad River	29	17	11
Redwood Creek	5	1	1
Smith River	3	5	3
Tectah, Mettah, Roach, and Tully Creeks	0	0	0
Upper Mad River, Upper Redwood Creek	18	5	4
Wilson, Hunter, and Turwar Creeks	0	0	0

2. Occupancy analysis

No analyses were conducted during the current reporting period. Results from the initial occupancy analysis were included with the 2022 annual report.

3. Incidental observations

Tree vole nest material consisting of resin ducts was found within the Lower Mad River – Fickle Hill Owl Management Unit (Figure 10).

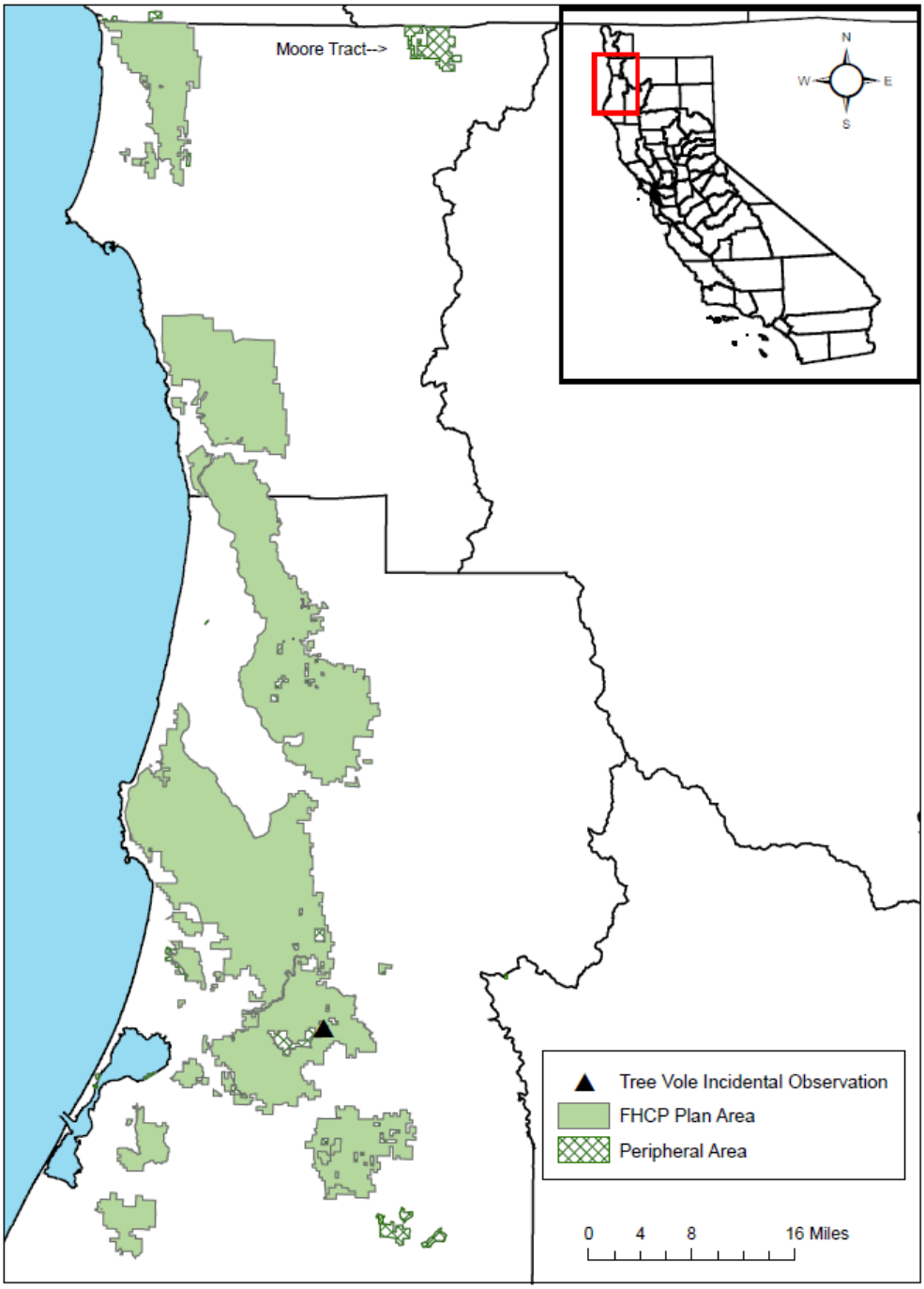

Figure 10. Incidental observations of tree vole within the Plan Area during the current reporting period.

C. Discussion

In 2021, members of Green Diamond's biological staff worked with vole experts associated with Oregon State University to further refine bone identification techniques and update existing keys resulting in higher classification rates compared to previous reporting periods. As described above, further classification of species belonging to the genus *Arborimus* would potentially require a genetic approach given the similarities in skull and mandible characteristics between *A. longicaudus*, *A. pomo*, and *A. albipes*. However, historic and contemporary survey efforts have demonstrated that presence of *A. albipes* within the Plan Area is rare. Given the habitat associations and foraging behavior of A. albipes, it is extremely unlikely that spotted owls would prey upon *A. albipes*. Therefore, the *Arborimus* specimens are most likely *A. longicaudus* or *A. pomo*.

The digestive process of pellet formation may result in bone loss or degradation, and weathering post regurgitation may further degrade pellet samples. The resulting poor condition of the skulls and mandibles may prevent identification of tree vole specimens (genus *Arborimus*) versus other sympatric vole species using basic skull or teeth morphology. This small subset of samples could be further analyzed using more advanced techniques such as a genetic-based approach to accurately identify individual species. Although the number of bones or individual pellets within a single sample may vary, the overall number of pellet samples collected between 2018 and 2020 declined while pellet samples collected in 2021 increased. The number of pellet samples collected in 2022 and 2023 declined compared to 2021. The number of pellets collected in 2024 increased compared to the 2022 and 2023 reporting periods. Alternative methods for locating pellets in years when spotted owl occupancy within the Plan Area is low may be incorporated in future reporting periods to increase pellet sample size for the occupancy modeling. Based on Green Diamond's spotted owl demographic studies (Chapter VII of this report), the number of occupied and paired sites within the Plan Area declined in recent years with the exception of 2024 where the number of occupied and paired sites increased compared to the previous reporting period. Spotted owl site occupancy has a direct impact on the number of pellet samples available for collection each reporting period and likely contributed to the increase in number of pellet samples collected in 2021. Increased spotted owl occupancy and paired occupancy expected as a result of the Phase II barred owl removal experiments should result in an increase in the number of pellet samples collected in coming years.

The purpose of the occupancy analysis was to develop initial methods for monitoring tree vole occupancy within the Plan Area. Future analyses will rely on pellet samples collected during the FHCP permit term starting with pellets collected in 2019. Based on this initial analysis, average tree vole occupancy declined during the later years of the study, which may be the result of fewer occupied owl sites within the Plan Area in the later years. Additionally, fewer spotted owl pairs attempted reproduction in the later years. Fewer occupied owl sites and fewer owl pairs attempting reproduction resulted primarily from increased competition with barred owls (Franklin et al. 2021). Pellet

samples were more easily collected at sites with reliable nesting spotted owls due to an increased knowledge of nest and roost trees and more concentrated spotted owl activity within the nesting core. Likewise, pellet sample distribution was more concentrated in Owl Management Units with higher owl occupancy and more frequent nesting attempts. Ideally, as the removal experiments continue, spotted owl site occupancy and reproduction will increase within the Plan Area allowing for increased pellet sample collections and more evenly distributed collections. Current and future pellet collection efforts will focus on collecting a greater number of samples per year and increasing effort in Owl Management Units with spotted owl occupancy where pellet collections have been historically low. However, sampling relies heavily on spotted owl occupancy which will vary across Owl Management Units and across years. Therefore, future analyses will need to include statistical methods to deal with changes in tree vole occupancy that may be the result of changes in spotted owl site occupancy.

X. Adaptive Management

The adaptive management process addresses scientific uncertainties through monitoring of Covered Species to determine whether FHCP conservation measures have intended effects. Green Diamond will initiate reviews and implement adaptive management measures in response to monitoring outcomes specific to the Covered Species. A basic premise of adaptive management is that early warning of unanticipated and undesirable outcomes of the FHCP implementation, such as declines in the number and/or distribution of the Covered Species, should be addressed as early as possible. Therefore, the FHCP adaptive management process includes an early warning 'yellow-light' trigger, as well as a second, more urgent 'red light' trigger. Objective yellow light triggers will cause Green Diamond to intensify monitoring efforts. If the monitoring indicates that red light conditions have been triggered, Green Diamond (in coordination with the USFWS and the CDFW) will conduct an assessment to identify the potential cause behind the negative monitoring result, its potential management activity relationship, and any appropriate management changes.

This section of the annual report highlights the prospective adaptive management triggers and commitments, as well as any adaptive management measures implemented.

A. Methods

1. Northern Spotted Owl Adaptive Management Thresholds

a. Threshold One

Prior to model validation, a 'yellow light' condition will be triggered if the northern spotted owl population declines in the 6 years following approval of the FHCP and initiation of barred owl removals relative to the baseline northern spotted owl population. (i.e., 95% confidence interval (CI) of realized population change does not overlap 1.0 as described in Dugger et al., 2016).

b. Threshold Two

Following model validation, a 'yellow light' condition will be triggered if the 95% CI in realized population change based on mark-recapture or occupancy models does not overlap 1.0 in two of the most recent five years.

c. Threshold Three

Prior to model validation, 'red light' condition will be triggered if the northern spotted owl population continues to decline in the 10 years following approval of the FHCP (and initiation of barred owl removals) relative to the northern spotted owl population at the

initiation of barred owl removal (i.e., 95% CI of realized population change does not overlap 1.0 as described in Dugger et al., 2016).

d. Threshold Four

Following model validation, a 'red light' condition will be triggered if the 95% CI in realized population change based on mark-recapture or occupancy models does not overlap 1.0 in three out of five years.

e. Threshold Five

Green Diamond will annually assess the mean reproductive success of the northern spotted owl population at all Dynamic Core Areas (DCAs) plus a minimum of 12 other northern spotted owl sites selected by a spatially stratified random sample. The trend in fecundity over the prior six years within the Plan Area will be compared to the trend in a comparable regional mean. A 'red light' condition will be triggered if the trend in mean fecundity estimate from the Plan Area is statistically lower ($p \leq 0.05$) than the comparable regional mean reported for the Willow Creek Study Area.

2. Fisher Adaptive Management Thresholds

a. Threshold One

A 'yellow light' condition will be triggered if there is a statistically significant ($p = 0.05$) decrease in occupancy estimates for a major portion (e.g., ~50,000 acres) of the plan area at 5 years after occupancy model development.

b. Threshold Two

A 'red light' condition will be triggered if there is a statistically significant decrease in occupancy estimates in the same yellow light area at 10 years.

3. Tree Voles

a. Threshold One

A 'yellow light' condition will be triggered if there is a statistically significant ($p=0.05$) decrease in occupancy estimates for a major portion (e.g., ~50,000 acres) of the plan area for three consecutive years.

b. Threshold Two

A 'red light' condition will be triggered if there is a statistically significant ($p=0.05$) decrease in occupancy estimates in the same yellow light area for ≥ 5 consecutive years.

4. Adaptive Management Reserve Accounts (AMRA)

Long-term conservation of Covered Species involves substantial uncertainty regarding these species' responses to forest management, as currently practiced and as anticipated to evolve under this FHCP. This uncertainty applies throughout these species' ranges, and is not strictly an outcome of this FHCP. To ensure long-term conservation of these species, this FHCP includes a degree of flexibility in its response to new information, and an adaptive management approach to addressing unanticipated declines in either population numbers or distribution within the Plan Area, should they be documented through the proposed monitoring.

Responses to species' declines needs to be specifically tailored to the causes of such declines to ensure that they are reversed, and that resources allocated to addressing those issues are appropriately and optimally allocated. Continued monitoring of the Covered Species documented as in decline, without developing an appropriate means to respond, would not effectively serve the mandate of this FHCP to conserve the Covered Species. Green Diamond anticipates that economic and staffing resources dedicated to monitoring as initially described in this FHCP would be reallocated, at least in part. The purpose of this reallocation would be to gather information to understand the reasons for the decline, and develop and implement adaptive management measures to reverse those trends. This may result in less emphasis in monitoring, but would increase the emphasis on addressing biological issues that preclude conservation of the Covered Species.

For fisher and voles, the adaptive management account is funding-based to allow for a more flexible approach to new management prescriptions based on research rather than additional pre-determined habitat measures that are not presently known to benefit fisher or voles. Based on past monitoring and future model predictions, there will be an abundance of fisher and vole habitat throughout the term of the permit. Unlike NSO, habitat fitness models do not exist for fisher or voles, so we are not currently able to use quantitative methods to identify or predict habitat that would be capable of supporting an increasing population of these species. As such, there is no a priori biological rationale for adding even more habitat or habitat of a particular nature in the event of a fisher or vole population decline.

The adaptive management account for fisher and voles will consist of a total budget for the Plan Term with an opening balance of $500,000 (expendable at a rate of no more than $100,000 per year), of which, up to $250,000 may be applied to research in response to adaptive management triggers to investigate causation and the balance (no less than $250,000) may be applied to the expense of additional conservation measures or changes to Green Diamond management practices for the benefit of fisher and voles. The AMRA budget balance will be reported and inflation adjusted by Green Diamond with the filing of every fourth Annual Report based on the Gross Domestic Product (GDP) deflator calculated by the United States Bureau of Economic Analysis. With the filing of every

fourth Annual Report, Green Diamond will first deduct any eligible expenditures during the reporting period from the AMRA budget balance at the beginning of the reporting period (i.e., $500,000 at initiation of Forest HCP). The remaining AMRA balance will then be inflation adjusted by reference to the year of the most recent inflation-adjusted AMRA budget balance as the baseline, and reported to the Service as the AMRA budget balance for the next four-year reporting period.

The opening AMRA budget of $500,000 and inflation adjustment is based on the starting year of 2020. The AMRA budget balance inflation adjusted from 2020 through 2023 based on the Gross Domestic Product (GDP) deflator calculated by the United States Bureau of Economic Analysis results in the current balance AMRA budget of $579,750.65 each for voles and fisher. There were no deductions during the initial 4-year period. The next budget balance adjustment will be reported in the 2027 annual report.

B. Results

1. Northern Spotted Owl Adaptive Management Threshold Evaluation

a. Threshold One

This threshold will be evaluated in the sixth year following FHCP approval and initiation of barred owl removals (2027).

b. Threshold Two

This threshold will be evaluated following model validation.

c. Threshold Three

This threshold will be evaluated in the tenth year following FHCP approval and initiation of barred owl removals (2031).

d. Threshold Four

This threshold will be evaluated following model validation.

e. Threshold Five

This threshold will be evaluated in the sixth year following FHCP approval and initiation of barred owl removals (2027).

2. Fisher Adaptive Management Threshold Evaluation

a. Threshold One

This threshold will be evaluated five years after occupancy model development.

b. Threshold Two

This threshold will be evaluated ten years after occupancy model development.

3. Tree Voles

a. Threshold One

This threshold will be evaluated three years after occupancy model development.

b. Threshold Two

This threshold will be evaluated five years after occupancy model development.

4. Adaptive Management Reserve Accounts (AMRA)

The opening AMRA budget of $500,000 and inflation adjustment is based on the starting year of 2020. The AMRA budget balance inflation adjusted from 2020 through 2023 based on the Gross Domestic Product (GDP) deflator calculated by the United States Bureau of Economic Analysis results in the current balance AMRA budget of $579,750.65 each for voles and fisher. There were no deductions during the initial 4-year period. The next budget balance adjustment will be reported in the 2027 annual report.

C. Discussion

Adaptive management is an important component of habitat conservation planning that addresses biological uncertainty concerning the needs of the Covered Species throughout the life of the permit. If future monitoring reveals that biological objectives are not being met based on the established monitoring thresholds, then the adaptive management process will be implemented, and if warranted, corrective actions taken. Since the monitoring thresholds established through the adaptive management process are based on assessing trends in habitat or occupancy, several years of data are needed. This is the first full year of FHCP implementation, and adequate time has not passed to assess the conservation commitments.

XI. Implementation Budget

Green Diamond has identified the following 2024 Expenditures and approximate budget for 2025 for implementing the survey, monitoring, and research requirements of the FHCP.

2024 Expenditures

Item	Dollar amount
Payroll (wages and benefits)	$927,256
Supplies, Fuel, Repairs, Parts and Maintenance (vehicles and equipment)	$161,088
Professional Services (consulting fees, statisticians, consulting biologists)	$28,599
Total	$1,116,943

2024 Budget

Item	Dollar amount
Payroll (wages and benefits)	$1,056,213
Supplies, Fuel, Repairs, Parts, and Materials (vehicles and equipment)	$157,645
Professional Services (consulting fees, statisticians, consulting biologists)	$36,000
Total	$1,249,858

Appendix I. Results of THP surveys for spotted owls 2024.

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
03-2202	1-23-00189-HUM	Hunter Ranch	A	Detection Probability	N	Little Deer Creek
03-2202	1-23-00189-HUM	Hunter Ranch	B	Detection Probability	N	
03-2202	1-23-00189-HUM	Hunter Ranch	C	Detection Probability	N	
03-2202	1-23-00189-HUM	Hunter Ranch	D	Detection Probability	N	Little Deer Creek
14-2001	1-20-00124-HUM	Salmon West	D	Detection Probability	N	Salmon Creek #2
14-2001	1-20-00124-HUM	Salmon West	E	Detection Probability	N	EBF, Salmon Creek #2
14-2002	1-21-00134-HUM	Gas Wells Thinning 22	A	Detection Probability	Y	
14-2002	1-21-00134-HUM	Gas Wells Thinning 22	B	Detection Probability	Y	PL236, Rohner Creek, HRC 369
14-2002	1-21-00134-HUM	Gas Wells Thinning 22	C	Detection Probability	Y	Rohner Creek
14-2101	1-22-00173-HUM	The McCloud 5	A	Detection Probability	Y	HRC 372, Lower McCloud Creek, McCloud Creek
14-2101	1-22-00173-HUM	The McCloud 5	B	Detection Probability	Y	HRC 372
14-2101	1-22-00173-HUM	The McCloud 5	C	Detection Probability	Y	Lower McCloud Creek, McCloud Creek
14-2101	1-22-00173-HUM	The McCloud 5	D	Detection Probability	Y	
15-2001	1-21-00022-HUM	Jacoby 22	D	Spot Call	Y	
17-2201	1-23-00033-HUM	Boulder Bottoms	A	Detection Probability	Y	Boulder Creek #1, Boulder Creek #2, Camp Gate, Camp Gate North
17-2201	1-23-00033-HUM	Boulder Bottoms	B	Detection Probability	Y	Boulder Creek #1, Camp Gate
17-2201	1-23-00033-HUM	Boulder Bottoms	C	Detection Probability	Y	
17-2201	1-23-00033-HUM	Boulder Bottoms	D	Detection Probability	Y	Camp Gate, Camp Gate North
17-2201	1-23-00033-HUM	Boulder Bottoms	E	Detection Probability	Y	
17-2202	1-23-00053-HUM	Wiggins North II	A	Detection Probability	Y	
17-2202	1-23-00053-HUM	Wiggins North II	B	Detection Probability	Y	
17-2202	1-23-00053-HUM	Wiggins North II	C	Detection Probability	Y	
17-2202	1-23-00053-HUM	Wiggins North II	D	Detection Probability	Y	B.C. Powerline

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
17-2202	1-23-00053-HUM	Wiggins North II	E	Detection Probability	Y	Rock Ranch
17-2202	1-23-00053-HUM	Wiggins North II	F	Detection Probability	Y	Rock Ranch, Upper Maple Creek
17-2202	1-23-00053-HUM	Wiggins North II	G	Detection Probability	Y	Davis Creek, Upper Maple Creek
17-2203	1-23-00034-HUM	Madrone 200	A	Second Year	Y	
17-2203	1-23-00034-HUM	Madrone 200	B	Second Year	Y	
17-2203	1-23-00034-HUM	Madrone 200	C	Second Year	Y	
17-2203	1-23-00034-HUM	Madrone 200	D	Second Year	Y	
18-1801	1-19-00013-HUM	Smokehouse Creek	A	Second Year	Y	
18-1801	1-19-00013-HUM	Smokehouse Creek	D	Second Year	Y	
18-2001	1-20-00207-HUM	Boulder Bundle	D	Second Year	Y	
19-2201	1-23-00019-HUM	McKay Gate	A	Detection Probability	N	
19-2201	1-23-00019-HUM	McKay Gate	B	Detection Probability	N	
19-2201	1-23-00019-HUM	McKay Gate	C	Detection Probability	N	
19-2201	1-23-00019-HUM	McKay Gate	D	Detection Probability	N	Henderson Gulch
19-2201	1-23-00019-HUM	McKay Gate	E	Detection Probability	N	
19-2201	1-23-00019-HUM	McKay Gate	F	Detection Probability	N	
22-2001	1-21-00124-HUM	Fickle Hill 1100	A	Detection Probability	N	
22-2001	1-21-00124-HUM	Fickle Hill 1100	C	Second Year	Y	
22-2001	1-21-00124-HUM	Fickle Hill 1100	F	Detection Probability	Y	
22-2201	1-23-00112-HUM	Thin Devil Thin	A	Detection Probability	Y	6007, Middle Devil's Creek
24-1901	1-20-00019-HUM	Ward Road Combo	D	Detection Probability	N	Simpson Creek
24-2001	1-21-00016-HUM	Maple Bear	A	Detection Probability	N	4800, 4851, Wood Ranch
24-2201	1-22-00118-HUM	Canon Ridge	B	Detection Probability	Y	Canyon Creek #1
24-2201	1-22-00118-HUM	Canon Ridge	C	Detection Probability	Y	Canyon Creek #1
26-2002	1-21-00019-HUM	Long Prairie 21	A	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
26-2102	1-22-00194-HUM	Dolf Prairie 23	B	Detection Probability	Y	Cal Barrel Washout
26-2102	1-22-00194-HUM	Dolf Prairie 23	D	Detection Probability	Y	Cal Barrel Washout
26-2102	1-22-00194-HUM	Dolf Prairie 23	J	Detection Probability	Y	
26-2301	1-24-00010-HUM	Bosque Frio	A	Detection Probability	Y	Pollock Creek #2
26-2301	1-24-00010-HUM	Bosque Frio	B	Detection Probability	Y	Pollock Creek #2
26-2301	1-24-00010-HUM	Bosque Frio	C	Detection Probability	Y	Pollock Creek #2
26-2301	1-24-00010-HUM	Bosque Frio	D	Detection Probability	Y	
26-2301	1-24-00010-HUM	Bosque Frio	E	Detection Probability	Y	Pollock Creek #2
26-2303	1-24-00035-HUM	Fulton Ward	A	Detection Probability	N	Canyon Creek #1
26-2303	1-24-00035-HUM	Fulton Ward	B	Detection Probability	N	Canyon Creek #1
26-2303	1-24-00035-HUM	Fulton Ward	C	Detection Probability	N	
26-2303	1-24-00035-HUM	Fulton Ward	D	Detection Probability	N	Canyon Creek #1
27-1801	1-18-084-HUM	Cutoff Road	E	Detection Probability	Y	Christmas Tree Prairie
27-2301	1-23-00179-HUM	Xmas Rock	A	Detection Probability	N	Fern Prairie, Windy North
27-2301	1-23-00179-HUM	Xmas Rock	B	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	C	Detection Probability	N	Tilley Slide
27-2301	1-23-00179-HUM	Xmas Rock	D	Detection Probability	N	Tilley Slide
27-2301	1-23-00179-HUM	Xmas Rock	E	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	F	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	G	Detection Probability	N	Tilley Windy
27-2301	1-23-00179-HUM	Xmas Rock	H	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	I	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	J	Detection Probability	N	
27-2301	1-23-00179-HUM	Xmas Rock	K	Detection Probability	N	Cool Springs
27-2302	1-23-00129-HUM	Fernwood Gully	A	Detection Probability	N	Upper Noisy Creek

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
27-2302	1-23-00129-HUM	Fernwood Gully	B	Detection Probability	N	Gardelia
27-2302	1-23-00129-HUM	Fernwood Gully	C	Detection Probability	N	
27-2302	1-23-00129-HUM	Fernwood Gully	D	Detection Probability	N	
27-2302	1-23-00129-HUM	Fernwood Gully	E	Detection Probability	N	
34-1901	1-19-00076-HUM	Big Mack Combo	E	Second Year	Y	
34-1901	1-19-00076-HUM	Big Mack Combo	F	Second Year	Y	
34-1901	1-19-00076-HUM	Big Mack Combo	G	Second Year	Y	
34-1901	1-19-00076-HUM	Big Mack Combo	H	Second Year	Y	
34-1901	1-19-00076-HUM	Big Mack Combo	I	Second Year	Y	
34-1901	1-19-00076-HUM	Big Mack Combo	J	Second Year	Y	
36-2201	1-23-00064-HUM	Ribar 16	A	Second Year	Y	
36-2201	1-23-00064-HUM	Ribar 16	B	Second Year	Y	
36-2201	1-23-00064-HUM	Ribar 16	C	Second Year	Y	
36-2201	1-23-00064-HUM	Ribar 16	D	Second Year	Y	
40-2001	1-21-00017-HUM	NF 1100	B	Detection Probability	Y	
40-2001	1-21-00017-HUM	NF 1100	F	Detection Probability	Y	Poverty Creek
40-2301	1-23-00127-HUM	Denman North	A	Detection Probability	N	
40-2301	1-23-00127-HUM	Denman North	B	Detection Probability	N	Denman Creek
40-2301	1-23-00127-HUM	Denman North	C	Detection Probability	N	Denman Creek, Mule Creek
40-2301	1-23-00127-HUM	Denman North	D	Detection Probability	N	Mule Creek
40-2301	1-23-00127-HUM	Denman North	E	Detection Probability	N	
40-2401	1-24-00088-HUM	K & K 150	B	Detection Probability	N	
40-2401	1-24-00088-HUM	K & K 150	C	Detection Probability	N	
40-2401	1-24-00088-HUM	K & K 150	D	Detection Probability	N	
42-2201	1-23-00055-HUM	North Fork ‘23	B	Second Year	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
42-2201	1-23-00055-HUM	North Fork ‘23	C	Second Year	Y	
42-2201	1-23-00055-HUM	North Fork ‘23	D	Spot Call	Y	
42-2201	1-23-00055-HUM	North Fork ‘23	E	Second Year	Y	
42-2301	1-24-00114-HUM	K&W 700	A	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	B	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	C	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	D	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	E	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	F	Detection Probability	N	
42-2301	1-24-00114-HUM	K&W 700	G	Detection Probability	N	
42-2401	1-24-00104-HUM	Upper Basin	A	Detection Probability	N	
42-2401	1-24-00104-HUM	Upper Basin	B	Detection Probability	N	
42-2401	1-24-00104-HUM	Upper Basin	C	Detection Probability	N	
42-2401	1-24-00104-HUM	Upper Basin	D	Detection Probability	N	
42-2401	1-24-00104-HUM	Upper Basin	E	Detection Probability	N	
43-1901	1-19-00167-HUM	Little Bull Thin	A	Second Year	Y	
43-2201	1-22-00004-HUM	CR 3300	A	Spot Call	Y	
43-2201	1-22-00004-HUM	CR 3300	B	Spot Call	Y	
43-2201	1-22-00004-HUM	CR 3300	C	Second Year	Y	
43-2201	1-22-00004-HUM	CR 3300	D	Second Year	Y	
43-2201	1-22-00004-HUM	CR 3300	E	Second Year	Y	
43-2201	1-22-00004-HUM	CR 3300	F	Spot Call	Y	
43-2201	1-22-00004-HUM	CR 3300	G	Second Year	Y	
43-2201	1-22-00004-HUM	CR 3300	H	Spot Call	Y	
43-2201	1-22-00004-HUM	CR 3300	I	Second Year	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
43-2203	1-23-0001-HUM	White Bull	C	Second Year	Y	
43-2203	1-23-0001-HUM	White Bull	D	Spot Call	Y	
43-2203	1-23-0001-HUM	White Bull	F	Spot Call	Y	
43-2204	1-23-00016-HUM	Tip Top Ridge Thin	A	Second Year/Spot Call	Y	
43-2204	1-23-00016-HUM	Tip Top Ridge Thin	B	Spot Call	Y	
44-2301	1-24-00024-HUM	Mule Prairie	A	Detection Probability	N	
44-2301	1-24-00024-HUM	Mule Prairie	B	Detection Probability	N	
44-2301	1-24-00024-HUM	Mule Prairie	C	Detection Probability	N	
44-2301	1-24-00024-HUM	Mule Prairie	D	Detection Probability	N	
44-2301	1-24-00024-HUM	Mule Prairie	E	Detection Probability	N	Jurin
44-2301	1-24-00024-HUM	Mule Prairie	F	Detection Probability	N	Jurin
45-2001	1-20-00162-HUM	Little Beach Thin	A	Second Year	Y	
45-2001	1-20-00162-HUM	Little Beach Thin	B	Second Year	Y	
45-2001	1-20-00162-HUM	Little Beach Thin	G	Second Year	Y	
45-2001	1-20-00162-HUM	Little Beach Thin	H	Second Year	Y	
45-2101	1-22-00112-HUM	CR 2000/2900 Thin	B	Detection Probability	Y	Little River #2
45-2301	1-23-00146-HUM	Maple Pollnow	A	Spot Call	Y	
45-2301	1-23-00146-HUM	Maple Pollnow	B	Spot Call	Y	
45-2301	1-23-00146-HUM	Maple Pollnow	C	Detection Probability	N	
45-2304	1-24-00026-HUM	Stone Soup Thin	B	Detection Probability	N	
45-2304	1-24-00026-HUM	Stone Soup Thin	C	Detection Probability	N	
47-1801	1-18-00157-HUM	CR1710	A	Detection Probability	N	
47-2002	1-20-00082-HUM	Mc Maple ‘21	E	Detection Probability	Y	
47-2104	1-21-00120-HUM	South McDonald 2022	A	Spot Call	Y	
47-2201	1-22-00144-HUM	Clear Creek ‘23	C	Spot Call	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
47-2201	1-22-00144-HUM	Clear Creek '23	D	Spot Call	Y	
47-2202	1-23-00109-HUM	Little Diamond	A	Second Year	Y	
47-2203	1-23-00068-HUM	Raven Ridge	A	Detection Probability	N	
47-2203	1-23-00068-HUM	Raven Ridge	B	Detection Probability	N	
47-2203	1-23-00068-HUM	Raven Ridge	C	Detection Probability	N	
47-2203	1-23-00068-HUM	Raven Ridge	D	Detection Probability	N	
47-2301	1-23-00102-HUM	Spruce Willis	A	Second Year	Y	
47-2301	1-23-00102-HUM	Spruce Willis	B	Second Year	Y	
47-2301	1-23-00102-HUM	Spruce Willis	C	Second Year	Y	
47-2301	1-23-00102-HUM	Spruce Willis	D	Second Year	Y	
47-2303	1-23-00124-HUM	Cable Maple	B	Second Year	Y	
47-2304	1-23-00173-HUM	Gray Pitcher	A	Spot Call	Y	
47-2304	1-23-00173-HUM	Gray Pitcher	B	Second Year/Spot Call	Y	
47-2304	1-23-00173-HUM	Gray Pitcher	C	Second Year	Y	
47-2304	1-23-00173-HUM	Gray Pitcher	D	Second Year	Y	
47-2305	1-23-00181-HUM	Pitcher 1000	A	Detection Probability	N	
47-2305	1-23-00181-HUM	Pitcher 1000	B	Detection Probability	N	
47-2305	1-23-00181-HUM	Pitcher 1000	C	Detection Probability	N	
47-2306	Not Yet Assigned	Little Running Bear	A	Detection Probability	N	
47-2307	1-24-00065-HUM	Big 4	A	Detection Probability	N	
47-2307	1-24-00065-HUM	Big 4	B	Detection Probability	N	
47-2307	1-24-00065-HUM	Big 4	C	Detection Probability	N	
47-2307	1-24-00065-HUM	Big 4	D	Detection Probability	N	
48-2102	1-22-00018-HUM	CR 2960 THP	A	Detection Probability	Y	
48-2102	1-22-00018-HUM	CR 2960 THP	B	Detection Probability	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
48-2201	1-23-00089-HUM	Red Panther	C	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	A	Detection Probability	Y	
48-2301	1-23-00147-HUM	K&K Scatter	B	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	C	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	D	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	E	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	F	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	G	Second Year	Y	
48-2301	1-23-00147-HUM	K&K Scatter	H	Second Year	Y	
48-2302	1-24-00073-HUM	Peter Panther	C	Detection Probability	N	
48-2302	1-24-00073-HUM	Peter Panther	D	Detection Probability	N	
48-2302	1-24-00073-HUM	Peter Panther	E	Detection Probability	N	
48-2401	1-24-00110-HUM	KnK Tops	A	Detection Probability	N	Dolly Varden
48-2401	1-24-00110-HUM	KnK Tops	B	Detection Probability	N	
48-2401	1-24-00110-HUM	KnK Tops	C	Detection Probability	N	
48-2401	1-24-00110-HUM	KnK Tops	D	Detection Probability	N	
48-2401	1-24-00110-HUM	KnK Tops	E	Detection Probability	N	
48-2401	1-24-00110-HUM	KnK Tops	F	Detection Probability	N	
51-1901	1-20-00018-HUM	Cemetery Gates ‘20	C	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	A	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	B	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	C	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	E	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	F	Second Year	Y	
51-2101	1-22-00028-HUM	Tully Creek '22	G	Detection Probability	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
51-2101	1-22-00028-HUM	Tully Creek '22	H	Detection Probability	Y	
51-2103	1-23-00020-HUM	Williams Ridge '23	B	Second Year	Y	
51-2103	1-23-00020-HUM	Williams Ridge '23	C	Detection Probability	N	
51-2103	1-23-00020-HUM	Williams Ridge '23	D	Second Year	Y	
51-2103	1-23-00020-HUM	Williams Ridge '23	E	Second Year	Y	
51-2103	1-23-00020-HUM	Williams Ridge '23	F	Second Year	Y	
51-2103	1-23-00020-HUM	Williams Ridge '23	G	Second Year	Y	
51-2201	1-23-00182-HUM	John Hancorne	A	Detection Probability	N	
51-2201	1-23-00182-HUM	John Hancorne	B	Detection Probability	N	
51-2201	1-23-00182-HUM	John Hancorne	C	Detection Probability	N	
51-2201	1-23-00182-HUM	John Hancorne	D	Detection Probability	N	
51-2201	1-23-00182-HUM	John Hancorne	E	Detection Probability	N	
51-2201	1-23-00182-HUM	John Hancorne	F	Detection Probability	N	
51-2301	1-24-00132-HUM	Tully Tubby	A	Detection Probability	N	
51-2301	1-24-00132-HUM	Tully Tubby	B	Detection Probability	N	
51-2301	1-24-00132-HUM	Tully Tubby	C	Detection Probability	N	
51-2301	1-24-00132-HUM	Tully Tubby	D	Detection Probability	N	
51-2301	1-24-00132-HUM	Tully Tubby	E	Detection Probability	N	
51-2401	Not Yet Assigned	Johnson 5	A	Detection Probability	N	
51-2401	Not Yet Assigned	Johnson 5	B	Detection Probability	N	
51-2401	Not Yet Assigned	Johnson 5	C	Detection Probability	N	
51-2401	Not Yet Assigned	Johnson 5	D	Detection Probability	N	
51-2401	Not Yet Assigned	Johnson 5	E	Detection Probability	N	
51-2402	Not Yet Assigned	Papa Roach	A	Detection Probability	N	
51-2402	Not Yet Assigned	Papa Roach	B	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
51-2402	Not Yet Assigned	Papa Roach	C	Detection Probability	N	
51-2402	Not Yet Assigned	Papa Roach	D	Detection Probability	N	Upper Roach Creek
51-2402	Not Yet Assigned	Papa Roach	E	Detection Probability	N	
51-2402	Not Yet Assigned	Papa Roach	F	Detection Probability	N	Upper Roach Creek
51-2402	Not Yet Assigned	Papa Roach	G	Detection Probability	N	Upper Roach Creek
51-2402	Not Yet Assigned	Papa Roach	H	Detection Probability	N	Upper Roach Creek
51-2402	Not Yet Assigned	Papa Roach	I	Detection Probability	N	Upper Roach Creek
51-2402	Not Yet Assigned	Papa Roach	J	Detection Probability	N	
51-2402	Not Yet Assigned	Papa Roach	K	Detection Probability	N	Upper Roach Creek
56-1704	1-18-063-HUM	J-1700 ‘19	F	Second Year	Y	
56-1903	1-21-00001-HUM	North Johnson ‘21	D	Second Year	Y	
56-1903	1-21-00001-HUM	North Johnson ‘21	F	Detection Probability	Y	Ambrose, Johnson Creek
56-1903	1-21-00001-HUM	North Johnson ‘21	G	Detection Probability	Y	Johnson Creek
56-1904	1-20-00149-HUM	A-400	E	Second Year	Y	
56-2103	1-23-00074-HUM	Tectah 180	C	Spot Call	Y	
56-2103	1-23-00074-HUM	Tectah 180	D	Spot Call	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	A	Second Year	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	B	Second Year	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	C	Second Year/Spot Call	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	D	Second Year/Spot Call	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	E	Second Year	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	F	Spot Call	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	G	Spot Call	Y	
56-2201	1-23-00125-HUM	Surpur Bear '23	H	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	A	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
56-2302	1-23-00123-HUM	Ah Pah Pah	B	Detection Probability	N	
56-2302	1-23-00123-HUM	Ah Pah Pah	C	Spot Call	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	D	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	E	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	F	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	G	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	H	Second Year	Y	
56-2302	1-23-00123-HUM	Ah Pah Pah	I	Second Year	Y	
56-2303	1-23-00092-HUM	SF Ah Pah	B	Spot Call	Y	
56-2303	1-23-00092-HUM	SF Ah Pah	D	Second Year	Y	
56-2303	1-23-00092-HUM	SF Ah Pah	F	Spot Call	Y	
56-2303	1-23-00092-HUM	SF Ah Pah	G	Second Year	Y	
56-2304	1-23-00185-HUM	The Slab	A	Detection Probability	N	
56-2304	1-23-00185-HUM	The Slab	B	Detection Probability	N	
56-2304	1-23-00185-HUM	The Slab	C	Detection Probability	N	
56-2304	1-23-00185-HUM	The Slab	D	Detection Probability	N	
56-2304	1-23-00185-HUM	The Slab	E	Detection Probability	N	
56-2304	1-23-00185-HUM	The Slab	F	Detection Probability	N	
56-2305	1-24-00086-HUM	Surp of the Day	A	Detection Probability	N	
56-2305	1-24-00086-HUM	Surp of the Day	B	Detection Probability	N	
56-2305	1-24-00086-HUM	Surp of the Day	C	Detection Probability	N	
56-2305	1-24-00086-HUM	Surp of the Day	D	Detection Probability	N	
56-2401	1-24-00081-HUM	The Rock Johnson	A	Detection Probability	N	
56-2401	1-24-00081-HUM	The Rock Johnson	B	Detection Probability	N	
56-2401	1-24-00081-HUM	The Rock Johnson	C	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
56-2402	1-24-00156-HUM	Surpur Fly	A	Detection Probability	N	
56-2402	1-24-00156-HUM	Surpur Fly	B	Detection Probability	N	
56-2402	1-24-00156-HUM	Surpur Fly	C	Detection Probability	N	
56-2402	1-24-00156-HUM	Surpur Fly	D	Detection Probability	N	
56-2402	1-24-00156-HUM	Surpur Fly	E	Detection Probability	N	
61-2201	1-22-00158-HUM	S-line	A	Second Year	Y	
61-2201	1-22-00158-HUM	S-line	B	Second Year	Y	
61-2201	1-22-00158-HUM	S-line	C	Second Year	Y	
61-2201	1-22-00158-HUM	S-line	D	Second Year	Y	
61-2201	1-22-00158-HUM	S-line	E	Spot Call	Y	
61-2201	1-22-00158-HUM	S-line	F	Spot Call	Y	
61-2301	1-24-00091-HUM	Sturgeon Hole	A	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	B	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	C	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	D	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	E	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	F	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	G	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	H	Detection Probability	N	
61-2301	1-24-00091-HUM	Sturgeon Hole	I	Detection Probability	N	Klamath Bar
61-2301	1-24-00091-HUM	Sturgeon Hole	J	Detection Probability	N	Klamath Bar
61-2301	1-24-00091-HUM	Sturgeon Hole	K	Detection Probability	N	
66-2101	1-23-00008-DEL	MG-900	A	Detection Probability	N	
66-2101	1-23-00008-DEL	MG-900	B	Detection Probability	N	
66-2101	1-23-00008-DEL	MG-900	C	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
66-2101	1-23-00008-DEL	MG-900	D	Second Year	Y	
66-2101	1-23-00008-DEL	MG-900	E	Spot Call	Y	
66-2101	1-23-00008-DEL	MG-900	H	Second Year	Y	
66-2201	1-23-00091-DEL	Drury 3 Pack	A	Detection Probability	N	
66-2201	1-23-00091-DEL	Drury 3 Pack	B	Detection Probability	N	
66-2201	1-23-00091-DEL	Drury 3 Pack	C	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	A	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	B	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	C	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	D	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	E	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	F	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	G	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	H	Detection Probability	N	
66-2401	Not Yet Assigned	Westside McGarvey	I	Detection Probability	N	
66-2402	1-24-00082-HUM	Biscuits and McGarvey	A	Detection Probability	N	
66-2402	1-24-00082-HUM	Biscuits and McGarvey	B	Detection Probability	N	
66-2402	1-24-00082-HUM	Biscuits and McGarvey	C	Detection Probability	N	
66-2402	1-24-00082-HUM	Biscuits and McGarvey	D	Detection Probability	N	
67-2001	1-21-00089-DEL	Dump Thin	A	Detection Probability	N	D100
67-2001	1-21-00089-DEL	Dump Thin	B	Detection Probability	N	D100
67-2001	1-21-00089-DEL	Dump Thin	C	Second Year	Y	
67-2001	1-21-00089-DEL	Dump Thin	D	Second Year	Y	
67-2001	1-21-00089-DEL	Dump Thin	E	Second Year	Y	
67-2001	1-21-00089-DEL	Dump Thin	F	Second Year	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
67-2001	1-21-00089-DEL	Dump Thin	G	Second Year	Y	
67-2001	1-21-00089-DEL	Dump Thin	I	Second Year	Y	
70-2001	1-21-00005-DEL	Salt Creek	A	Second Year	Y	
70-2001	1-21-00005-DEL	Salt Creek	B	Second Year	Y	
70-2001	1-21-00005-DEL	Salt Creek	C	Second Year	Y	
70-2001	1-21-00005-DEL	Salt Creek	D	Second Year	Y	
70-2001	1-21-00005-DEL	Salt Creek	E	Second Year	Y	
71-2103	1-21-00189-DEL	Hunter West	A	Second Year	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	A	Second Year	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	B	Detection Probability	N	Willys Corner
71-2105	1-22-00167-DEL	Hunter Wilson 23	C	Detection Probability	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	E	Spot Call	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	F	Second Year	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	G	Detection Probability	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	H	Spot Call	Y	
71-2105	1-22-00167-DEL	Hunter Wilson 23	I	Spot Call	Y	
71-2201	1-21-00010-DEL	Cazadores	A	Detection Probability	Y	
71-2201	1-21-00010-DEL	Cazadores	C	Detection Probability	Y	
71-2201	1-21-00010-DEL	Cazadores	D	Detection Probability	Y	Hunter 240
71-2201	1-21-00010-DEL	Cazadores	E	Detection Probability	Y	
71-2202	1-24-00072-DEL	H510	A	Detection Probability	Y	Hunter 500, Hunter CF
71-2202	1-24-00072-DEL	H510	B	Detection Probability	Y	Hunter 500
71-2202	1-24-00072-DEL	H510	C	Detection Probability	N	
71-2202	1-24-00072-DEL	H510	D	Detection Probability	N	
71-2202	1-24-00072-DEL	H510	E	Detection Probability	N	Hunter 500

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
71-2301	1-24-00009-DEL	W-100	A	Detection Probability	N	
71-2301	1-24-00009-DEL	W-100	B	Detection Probability	N	W302
71-2301	1-24-00009-DEL	W-100	C	Detection Probability	N	W100, W302
71-2301	1-24-00009-DEL	W-100	D	Detection Probability	N	W100, W302
71-2301	1-24-00009-DEL	W-100	E	Detection Probability	N	
71-2301	1-24-00009-DEL	W-100	F	Detection Probability	N	W100
71-2301	1-24-00009-DEL	W-100	G	Detection Probability	N	W100
71-2302	1-24-00045-DEL	W-110	A	Detection Probability	N	
71-2302	1-24-00045-DEL	W-110	B	Detection Probability	N	
71-2302	1-24-00045-DEL	W-110	C	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	A	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	B	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	C	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	D	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	E	Detection Probability	N	
71-2402	1-24-00108-DEL	Hunter Hills	F	Detection Probability	N	
73-2301	1-24-00030-DEL	Turwer 2023	A	Detection Probability	N	
73-2301	1-24-00030-DEL	Turwer 2023	B	Detection Probability	N	
73-2301	1-24-00030-DEL	Turwer 2023	C	Detection Probability	N	
73-2301	1-24-00030-DEL	Turwer 2023	D	Detection Probability	N	
73-2401	1-24-00118-DEL	Hoppaw Ridge	A	Detection Probability	N	
73-2401	1-24-00118-DEL	Hoppaw Ridge	B	Detection Probability	N	
73-2401	1-24-00118-DEL	Hoppaw Ridge	C	Detection Probability	N	
73-2401	1-24-00118-DEL	Hoppaw Ridge	D	Detection Probability	N	
73-2401	1-24-00118-DEL	Hoppaw Ridge	E	Detection Probability	N	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
73-2401	1-24-00118-DEL	Hoppaw Ridge	F	Detection Probability	N	
73-2402	Not Yet Assigned	Seaview	A	Detection Probability	N	Mynot School
73-2402	Not Yet Assigned	Seaview	B	Detection Probability	N	
85-1901	1-20-00008-DEL	Dandy Creek	D	Second Year	Y	
85-2002	1-21-00146-DEL	Nasty Jack	E	Second Year	Y	
90-2301	1-24EX-00047-DEL	Archery Range Forest Fire Prevention Exemption	A	Detection Probability	Y	
90-2401	1-24-00066-DEL	Some Mor	A	Detection Probability	N	
90-2401	1-24-00066-DEL	Some Mor	B	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	A	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	B	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	C	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	D	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	E	Detection Probability	N	
90-2402	1-24-00120-DEL	Mor Rock	F	Detection Probability	N	
93-1802	1-18-00187-DEL	Win-Do	B	Detection Probability	N	Dominie Dogleg
93-2102	1-21-00165-DEL	The Jim Adams	E	Detection Probability	Y	Copper Creek
93-2102	1-21-00165-DEL	The Jim Adams	F	Detection Probability	Y	Copper Creek
93-2103	1-22-00066-DEL	Savoy 23	A	Second Year	Y	
93-2202	1-23-00081-DEL	WI-700	A	Second Year	Y	
93-2202	1-23-00081-DEL	WI-700	B	Second Year	Y	
93-2202	1-23-00081-DEL	WI-700	C	Second Year	Y	
93-2202	1-23-00081-DEL	WI-700	D	Second Year	Y	
93-2202	1-23-00081-DEL	WI-701	E	Spot Call	Y	
93-2202	1-23-00081-DEL	WI-701	F	Detection Probability		Gilbert Creek

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
93-2202	1-23-00081-DEL	WI-701	G	Spot Call	Y	
93-2203	1-23-00035-DEL	Rowdy Scraps	A	Detection Probability	Y	
93-2203	1-23-00035-DEL	Rowdy Scraps	B	Detection Probability	Y	
93-2203	1-23-00035-DEL	Rowdy Scraps	C	Detection Probability	Y	Dominie Winchuck
93-2203	1-23-00035-DEL	Rowdy Scraps	D	Detection Probability	N	Dominie Winchuck
93-2203	1-23-00035-DEL	Rowdy Scraps	E	Detection Probability	N	
93-2203	1-23-00035-DEL	Rowdy Scraps	F	Detection Probability	N	
93-2203	1-23-00035-DEL	Rowdy Scraps	G	Detection Probability	N	
93-2203	1-23-00035-DEL	Rowdy Scraps	H	Detection Probability	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	B	Detection Probability	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	C	Second Year	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	D	Second Year	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	E	Spot Call	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	F	Spot Call	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	G	Spot Call	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	H	Spot Call	Y	
93-2301	1-23-00144-DEL	Rowdy Thin	I	Second Year	Y	
93-2302	1-23-00180-DEL	Bear Crik	A	Detection Probability	N	
93-2302	1-23-00180-DEL	Bear Crik	B	Detection Probability	N	
93-2302	1-23-00180-DEL	Bear Crik	C	Detection Probability	N	
94-2201	1-22-00141-DEL	Northbank	A	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	B	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	C	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	D	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	I	Second Year	Y	

THP#	State ID	THP Name	Unit ID	Survey Type	Surveyed in previous year	Spotted owl site within 0.5 mile
94-2201	1-22-00141-DEL	Northbank	M	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	O	Second Year	Y	
94-2201	1-22-00141-DEL	Northbank	P	Second Year	Y	
94-2301	1-23-00082-DEL	Peacock Creek	B	Detection Probability	N	Peacock Creek
94-2301	1-23-00082-DEL	Peacock Creek	C	Detection Probability	Y	
94-2301	1-23-00082-DEL	Peacock Creek	D	Detection Probability	N	Peacock Creek
94-2301	1-23-00082-DEL	Peacock Creek	E	Detection Probability	N	
94-2301	1-23-00082-DEL	Peacock Creek	F	Detection Probability	N	
95-2201	1-19-00021-DEL	The Dump '20	B	Detection Probability	N	
95-2201	1-19-00021-DEL	The Dump '20	C	Detection Probability	N	
95-2201	1-19-00021-DEL	The Dump '20	D	Detection Probability	N	

Spot call survey type refers to units that were cut through the beginning of the 2024 survey period with continuous operations until harvest was complete. Such units were surveyed once per week concurrent with operations until five surveys were completed or less than 10 acres of contiguous timber remained standing. All units that were spot called in 2024 were surveyed in 2023 until 95% probability of detection was achieved.

Detection Probability survey type indicates that a unit was surveyed in 2024 prior to operations until 95% probability of detection was achieved (range 4-6 surveys).

Second Year survey type indicates that a unit was surveyed in the previous year with the detection probability protocol and no owls were detected. Under these circumstances, a second year survey protocol that incorporates the results from the detection probability analysis described in Chapter II of the annual report may be implemented, and four surveys are required to achieve a 95% probability of detecting an owl.

Detection probability & Spot Call or Second Year & Spot Call survey types indicate that a portion of the unit was cut continuously through the beginning of the 2024 survey period followed by a delay in harvest of the remaining portion. The portion of the unit harvested through the beginning of the 2024 survey period received spot call surveys. The portion of the unit that remained was surveyed either using the detection probability protocol or second year surveys before operations continued in 2024.

Appendix II: Raw data for habitat retention measures for individual clearcut harvest units summarized in Tables 1, 2, 3, 4, 5, and 6.

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
142101	1-22-00173-HUM	A	39.24	0	0	2.0	2.0	0.50	0.50	4	4	5	Conifer	3.18
142101	1-22-00173-HUM	C	62.45	0	0	2.0	2.0	0.05	0.05	0	0	7	Conifer	20.97
142101	1-22-00173-HUM	E	18.17	1	1	2.0	2.0	0.01	0.01	4	4	1	Conifer	0.00
152001	1-21-00022-HUM	D	15.52	0	0	1.2	1.2	0.20	0.20	3	3	2	Conifer	3.12
152101	1-22-00126-HUM	A	38.27	0	0	1.5	1.5	0.30	0.30	4	4	0.5	Conifer	7.56
152101	1-22-00126-HUM	B	35.13	0	0	1.3	1.3	0.30	0.30	6	6	0.5	Conifer	11.92
152101	1-22-00126-HUM	C	37.91	0	0	1.1	1.1	0.20	0.20	9	9	1	Conifer	13.17
172001	1-20-00222-HUM	A	32.62	0	0	2.0	2.0	0.00	0.00	54	54	0.5	Conifer	0.90
172002	1-21-00049-HUM	D	32.72	0	0	1.0	2.6	0.75	0.76	30	32	0.2	Conifer	3.58
172201	1-23-00033-HUM	A	32.88	0	0	2.0	2.0	0.10	0.10	17	17	0.5	Conifer	8.15
172201	1-23-00033-HUM	C	13.30	0	0	2.0	2.0	0.10	0.10	3	3	0.05	Conifer	0.59
172201	1-23-00033-HUM	D	25.74	0	0	2.0	2.0	0.10	0.10	41	41	0.1	Conifer	4.67
172201	1-23-00033-HUM	E	29.43	0	0	2.0	2.0	0.50	0.50	11	11	0	Conifer	3.84
172203	1-23-00034-HUM	A	31.94	0	0	2.0	2.0	0.00	0.00	5	5	0.1	Conifer	6.73
172203	1-23-00034-HUM	B	34.17	0	0	2.0	2.0	0.20	0.20	38	38	0	Conifer	3.83
172203	1-23-00034-HUM	D	33.35	1	1	2.0	2.0	0.30	0.30	11	11	0.1	Conifer	0.34
182001	1-20-00207-HUM	E	21.05	0	0	2.0	2.0	0.00	0.00	3	3	0	Conifer	6.34
182001	1-20-00207-HUM	F	24.17	0	0	2.0	2.0	0.00	0.00	12	12	0	Conifer	2.46
222001	1-21-00124-HUM	C	27.04	0	0	1.6	1.6	0.30	0.30	0	0	1	Conifer	4.21
222001	1-21-00124-HUM	F	10.95	1	1	3.6	3.6	0.30	0.30	6	6	1	Conifer	1.57
261901	1-19-00161-HUM	F	42.37	0	0	3.1	3.1	0.30	0.30	37	37	1	Conifer	12.43
262101	1-22-00038-HUM	B	39.13	0	0	4.2	4.2	0.25	0.32	133	99	4.6	Conifer	7.79
262102	1-22-00194-HUM	A	26.25	0	0	2.7	2.7	0.30	0.30	9	9	0.5	Conifer	6.53
262102	1-22-00194-HUM	C	30.60	0	0	3.9	3.9	0.30	0.30	36	36	0.5	Conifer	14.96
262102	1-22-00194-HUM	E	40.40	0	0	3.3	3.3	0.30	0.30	61	61	0.5	Conifer	18.17
262102	1-22-00194-HUM	F	42.39	0	0	4.3	4.3	0.30	0.30	53	53	1	Conifer	8.74
262102	1-22-00194-HUM	G	21.81	0	0	4.2	4.2	0.30	0.30	29	29	0.5	Conifer	11.40

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
262102	1-22-00194-HUM	H	33.72	3	3	2.7	2.7	0.30	0.30	29	29	0.7	Conifer	1.35
262102	1-22-00194-HUM	I	19.79	0	0	4.8	4.8	0.30	0.30	15	15	0.5	Conifer	7.04
262102	1-22-00194-HUM	J	41.63	0	0	4.0	4.0	0.30	0.30	27	27	1	Hardwood	6.78
262301	1-24-00010-HUM	B	25.16	0	0	1.5	3.0	0.18	0.13	10	15	4	Conifer	7.98
362201	1-23-00064-HUM	A	32.28	0	0	1.8	1.8	0.20	0.20	1	1	0.2	Conifer	11.04
402001	1-21-00017-HUM	E	36.04	0	0	2.9	2.9	0.30	0.30	47	47	1.5	Conifer	5.45
422002	1-21-00091-HUM	H	17.94	0	0	1.4	1.4	0.20	0.00	8	4	0.1	Conifer	5.18
422201	1-23-00055-HUM	A	40.64	0	0	2.1	2.1	0.10	1.00	1	1	5	Conifer	10.28
422201	1-23-00055-HUM	B	33.65	1	1	9.6	9.6	0.10	0.30	51	51	3	Hardwood	2.48
422201	1-23-00055-HUM	D	36.97	0	0	2.6	2.6	0.10	0.04	6	6	0.5	Conifer	11.82
432202	1-22-00106-HUM	B	27.27	0	0	2.7	5.1	0.10	0.00	0	0	0.1	Conifer	6.55
432203	1-23-00001-HUM	A	49.80	0	0	2.0	2.0	0.00	0.00	2	0	5	Conifer	23.89
432203	1-23-00001-HUM	B	28.91	4	4	2.0	2.0	0.00	0.00	3	2	5	Conifer	0.25
432203	1-23-00001-HUM	D	46.35	0	0	2.0	2.0	0.00	0.00	1	1	5	Conifer	10.95
452301	1-23-00146-HUM	A	16.88	0	0	2.9	2.9	0.25	0.10	19	19	2	Conifer	1.12
452301	1-23-00146-HUM	B	29.54	0	0	2.0	2.0	0.25	0.10	1	1	2	Conifer	3.61
471901	1-19-00215-HUM	A	40.54	0	0	15.0	15.0	1.00	1.00	13	13	0.5	Conifer	1.08
472103	1-21-00143-HUM	A	31.01	0	0	3.0	3.0	0.50	0.50	0	0	0.5	Conifer	5.08
472103	1-21-00143-HUM	D	14.10	0	0	5.0	5.0	0.50	0.50	4	4	0.5	Conifer	2.76
472103	1-21-00143-HUM	E	33.39	0	0	2.5	2.5	0.50	0.50	11	11	0.5	Conifer	5.46
472104	1-21-00120-HUM	A	39.42	0	0	1.0	1.0	0.00	0.00	3	3	0.1	Conifer	6.54
472105	1-22-00016-HUM	B	24.22	0	0	2.8	2.8	0.50	0.10	6	6	1	Conifer	4.41
472201	1-22-00144-HUM	A	29.83	0	0	2.1	2.1	0.50	0.50	13	12	2	Conifer	3.08
472201	1-22-00144-HUM	C	18.64	0	0	3.3	6.1	0.50	0.40	16	12	9	Conifer	0.79
472201	1-22-00144-HUM	D	30.62	0	0	2.3	3.0	0.60	0.60	52	47	3	Conifer	4.97
472301	1-23-00102-HUM	A	36.05	0	0	2.0	2.0	0.00	0.00	3	3	5	Conifer	7.09
472301	1-23-00102-HUM	B	45.81	0	0	2.0	2.0	0.00	0.00	2	2	5	Conifer	15.39
472301	1-23-00102-HUM	C	35.05	0	0	2.0	2.0	0.00	0.00	1	1	5	Conifer	1.16

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
472301	1-23-00102-HUM	D	42.72	0	0	2.0	2.0	0.00	0.00	2	2	5	Conifer	16.7
472303	1-23-00124-HUM	A	19.52	0	0	1.5	1.5	0.10	0.25	1	1	1	Conifer	10.98
472303	1-23-00124-HUM	C	14.11	0	0	1.9	1.9	0.10	0.50	0	0	2	Conifer	1.95
472304	1-23-00173-HUM	A	37.77	0	0	0.4	0.9	0.50	0.50	7	7	2	Conifer	7.44
482101	1-22-00013-HUM	C	35.80	0	0	3.8	3.8	0.30	0.30	91	91	0.75	Conifer	7.25
482101	1-22-00013-HUM	E	42.19	0	0	3.1	3.1	0.30	0.30	3	3	1	Conifer	17.01
482201	1-23-00089-HUM	A	32.51	0	0	1.5	1.5	0.50	0.25	4	4	1	Conifer	6.00
482201	1-23-00089-HUM	B	35.33	0	0	2.0	2.0	0.50	0.25	19	19	1	Conifer	0.00
482201	1-23-00089-HUM	D	44.78	0	0	2.0	2.0	1.00	0.50	13	13	1	Conifer	14.51
482201	1-23-00089-HUM	E	24.03	0	0	2.0	2.0	1.00	0.25	5	5	1	Conifer	3.15
482201	1-23-00089-HUM	F	33.88	0	0	2.0	2.0	0.50	0.10	6	6	1	Conifer	12.36
482301	1-23-00147-HUM	E	22.98	0	0	2.0	2.0	0.25	0.25	0	0	1	Conifer	0.00
482301	1-23-00147-HUM	H	33.15	0	0	2.0	2.0	0.25	0.25	0	1	1	Conifer	2.12
511901	1-20-00018-HUM	D	19.27	0	0	0.6	0.6	0.10	0.10	0	0	1	Conifer	7.67
511901	1-20-00018-HUM	E	27.54	0	0	1.0	17.7	0.10	0.00	1	0	3	Conifer	8.70
512002	1-21-00015-HUM	A	24.95	2	2	14.7	18.7	0.00	0.00	39	39	1.5	Conifer	2.20
512002	1-21-00015-HUM	C	18.88	2	2	13.4	13.7	0.00	0.44	64	59	2.6	Conifer	1.05
512101	1-22-00028-HUM	D	28.78	0	0	1.3	1.3	0.20	0.20	12	12	0	Conifer	1.45
512102	1-22-00026-HUM	B	24.81	0	0	3.7	4.0	0.50	0.50	2	2	0.5	Conifer	6.44
512103	1-23-00020-HUM	E	31.84	0	0	2.8	2.8	0.35	0.30	6	6	1.2	Conifer	4.14
512103	1-23-00020-HUM	F	14.61	0	0	1.5	2.5	0.30	0.30	9	8	1.5	Conifer	4.31
512103	1-23-00020-HUM	G	23.85	0	0	2.0	2.9	0.40	0.50	28	20	1.8	Conifer	1.56
512201	1-23-00182-HUM	C	32.95	0	0	2.0	2.0	0.00	0.00	25	20	5	Conifer	7.52
512201	1-23-00182-HUM	D	32.30	1	1	2.0	2.0	0.00	0.00	11	6	5	Conifer	2.47
561903	1-21-00001-HUM	A	15.57	0	0	2.0	2.0	0.25	0.25	24	12	2	Conifer	7.03
561903	1-21-00001-HUM	B	27.11	0	0	2.0	2.0	0.50	0.25	55	20	2	Conifer	2.56
561903	1-21-00001-HUM	C	39.88	0	0	2.0	2.0	0.25	0.25	28	55	1	Conifer	12.1
561903	1-21-00001-HUM	E	33.93	0	0	2.0	2.0	0.25	0.50	23	20	1	Conifer	4.57

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
561904	1-20-00149-HUM	E	64.49	0	0	2.0	2.0	1.00	1.00	6	25	1	Conifer	26.13
562102	1-21-00168-HUM	A	27.24	0	0	2.0	2.0	0.10	0.25	12	10	0.5	Conifer	8.35
562102	1-21-00168-HUM	D	21.62	0	0	2.0	2.0	0.10	0.10	24	17	1	Conifer	4.21
562102	1-21-00168-HUM	E	34.63	0	0	2.6	5	0.10	0.25	20	18	0.5	Conifer	6.28
562102	1-21-00168-HUM	F	37.41	0	0	3.2	4	0.10	0.25	13	12	0.5	Conifer	14.64
562103	1-23-00074-HUM	B	34.98	0	0	2.0	2.0	0.25	0.25	13	13	8	Conifer	4.15
562103	1-23-00074-HUM	C	31.21	0	0	2.0	2.0	0.25	0.25	11	11	12	Conifer	6.30
562103	1-23-00074-HUM	D	31.57	0	0	2.0	2.0	0.25	0.25	16	16	5	Conifer	9.99
562103	1-23-00074-HUM	E	35.47	1	1	2.0	2.0	0.25	0.25	6	6	8	Conifer	1.86
562201	1-23-00125-HUM	C	37.43	0	0	2.0	2.0	0.50	0.25	38	38	1.5	Conifer	10.04
562201	1-23-00125-HUM	D	19.84	0	0	3.2	3.2	0.50	0.40	29	29	1	Conifer	1.55
562201	1-23-00125-HUM	G	20.50	0	0	3.4	3.5	0.25	0.50	25	25	1.7	Conifer	0.81
562302	1-23-00123-HUM	A	22.51	1	1	0.8	20	0.40	0.50	6	6	0.6	Conifer	2.37
562302	1-23-00123-HUM	B	22.92	1	1	1.8	3.0	0.50	0.40	11	11	1	Conifer	1.86
562302	1-23-00123-HUM	C	23.11	0	0	1.5	2.0	0.30	0.30	12	12	1	Conifer	3.09
562302	1-23-00123-HUM	I	16.56	0	0	1.5	1.5	0.25	0.10	15	14	0.5	Conifer	1.00
562303	1-23-00092-HUM	A	34.38	0	0	3.0	3.0	0.50	0.25	49	47	0.5	Conifer	7.26
562303	1-23-00092-HUM	B	37.14	0	0	3.2	4.0	0.50	0.50	54	46	0.5	Conifer	4.79
562303	1-23-00092-HUM	C	30.45	0	0	2.7	4.0	0.50	0.25	40	37	0.5	Conifer	6.61
562303	1-23-00092-HUM	D	33.42	0	0	3.0	3.0	0.50	0.25	9	8	0.25	Conifer	14.11
562303	1-23-00092-HUM	E	19.02	0	0	4.0	4.0	0.50	00.0	35	33	0.5	Conifer	7.18
562303	1-23-00092-HUM	F	32.88	0	0	3.4	4.0	0.50	0.25	53	48	0.25	Conifer	9.34
612201	1-22-00158-HUM	A	40.02	0	0	2.0	2.0	0.50	0.50	1	1	0.25	Conifer	12.28
612201	1-22-00158-HUM	C	33.88	0	0	3.3	4.0	0.75	0.25	1	1	0.5	Conifer	3.42
612201	1-22-00158-HUM	D	46.08	0	0	3.0	3.0	0.75	0.50	1	1	0.5	Conifer	14.83
612201	1-22-00158-HUM	E	34.71	0	0	3.3	4.0	0.50	0.00	6	5	0.25	Conifer	4.52
612201	1-22-00158-HUM	F	33.38	0	0	3.0	3.0	0.50	0.00	11	10	0.25	Conifer	3.24
612201	1-22-00158-HUM	H	33.69	0	0	4.0	4.0	0.50	0.25	9	7	0.5	Conifer	7.87

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
612201	1-22-00158-HUM	I	26.93	2	0	2.0	6.0	0.50	0.25	6	6	0.25	Conifer	0.61
612201	1-22-00158-HUM	J	42.38	0	0	4.0	4.0	0.50	0.50	50	48	0.5	Conifer	17.38
662101	1-23-00008-HUM	E	29.36	0	0	2.0	2.0	0.50	0.25	3	2	0.75	Conifer	4.83
662101	1-23-00008-HUM	F	30.91	0	0	2.3	5.0	0.50	0.25	0	0	0.75	Conifer	8.27
662101	1-23-00008-HUM	G	34.62	0	0	2.7	5.0	0.50	0.25	0	0	0.75	Conifer	4.18
662101	1-23-00008-HUM	H	20.74	0	0	2.4	3.0	0.50	0.00	2	2	0.5	Conifer	4.75
712101	1-22-00004-DEL	B	35.83	0	0	2.0	2.0	00.0	0.00	1	1	0	Conifer	4.62
712103	1-21-00189-DEL	C	24.72	0	0	2.0	2.0	0.50	0.50	0	0	6	Conifer	14.53
712105	1-22-00167-DEL	C	9.19	0	0	2.0	2.0	0.50	0.50	5	5	3	Conifer	1.98
712105	1-22-00167-DEL	D	37.18	0	0	2.0	2.0	0.50	0.50	16	16	5	Conifer	6.45
712105	1-22-00167-DEL	E	24.27	0	0	2.0	2.0	0.50	0.50	13	13	3	Conifer	4.74
712105	1-22-00167-DEL	G	27.41	0	0	2.0	2.0	0.50	0.50	6	6	5	Conifer	6.84
712105	1-22-00167-DEL	H	19.24	1	1	2.0	2.0	0.50	0.50	2	2	3	Conifer	0.59
712105	1-22-00167-DEL	I	15.18	1	1	2.0	2.0	0.50	0.50	0	0	2	Conifer	4.24
712201	1-23-00010-DEL	A	33.69	2	0	2.0	2.0	0.25	0.25	2	2	5	Conifer	0.60
712201	1-23-00010-DEL	B	17.72	0	0	2.0	2.0	0.25	0.25	1	1	7	Conifer	3.41
712201	1-23-00010-DEL	C	30.39	1	0	2.0	2.0	0.25	0.25	1	1	8	Conifer	1.17
712201	1-23-00010-DEL	E	19.50	0	0	2.0	2.0	0.25	0.25	0	0	6	Conifer	3.02
732001	1-21-00080-DEL	A	35.38	0	0	2.0	2.0	0.00	0.10	2	1	0.5	Conifer	4.15
732002	1-21-00002-DEL	B	28.20	0	0	2.0	2.0	0.00	0.00	0	0	0.25	Conifer	8.40
732102	1-21-00195-DEL	C	42.49	0	0	1.8	1.8	0.40	0.75	25	24	0.6	Conifer	10.28
851901	1-20-00008-DEL	D	32.21	0	0	2.0	2.9	2.00	2.00	7	0	2	Conifer	13.09
852002	1-21-00146-DEL	E	29.95	0	0	3.6	5.0	1.00	0.75	49	49	1	Conifer	7.24
852002	1-21-00146-DEL	F	10.93	0	0	3.2	4.7	0.50	1.00	12	12	2	Conifer	5.13
852201	1-23-00002-DEL	A	19.34	0	0	1.8	1.8	0.50	1.00	0	0	2.5	Conifer	12.35
852201	1-23-00002-DEL	B	32.05	2	2	1.0	1.0	0.40	0.30	0	1	0.5	Conifer	2.35
852201	1-23-00002-DEL	C	14.93	0	0	2.5	2.5	0.25	0.00	0	0	0.6	Conifer	3.16
852201	1-23-00002-DEL	D	20.17	1	1	2.0	2.0	0.40	0.40	0	0	1.2	Conifer	0.00

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
852201	1-23-00002-DEL	E	26.97	0	0	0.9	0.9	0.25	0.20	2	1	0.1	Conifer	6.90
852201	1-23-00002-DEL	F	28.10	0	0	1.7	1.7	0.40	0.60	1	1	1.1	Conifer	6.37
852201	1-23-00002-DEL	G	25.18	0	0	2.0	2.0	0.50	0.50	0	0	0.75	Conifer	5.43
852201	1-23-00002-DEL	H	25.06	0	0	2.0	2.0	0.25	0.60	0	0	0.9	Conifer	4.48
852201	1-23-00002-DEL	I	13.68	1	1	2.3	2.3	0.25	0.25	0	0	0.6	Conifer	0.43
852202	1-23-00009-DEL	A	34.49	1	1	2.8	2.8	1.00	0.10	12	12	1	Conifer	1.00
932001	1-20-00142-DEL	C	65.95	0	0	1.5	1.5	0.50	0.50	2	2	1	Conifer	17.68
932102	1-21-00165-DEL	G	41.06	0	0	3.0	3.0	0.50	0.50	26	26	1	Conifer	12.28
932103	1-22-00066-DEL	A	48.25	0	0	3.6	3.6	0.50	0.50	18	18	1	Conifer	22.60
932103	1-22-00066-DEL	H	33.12	0	0	2.0	2.0	0.00	0.00	0	0	0.5	Conifer	14.19
932103	1-22-00066-DEL	I	49.63	0	0	1.0	1.0	0.00	0.00	5	5	1	Conifer	19.9
932104	1-22-00145-DEL	B	25.22	0	0	5.0	5.0	2.00	2.00	13	13	2	Conifer	2.80
932201	1-23-00015-DEL	A	29.07	0	0	3.0	3.0	0.50	0.50	18	18	3	Conifer	7.02
932202	1-23-00081-DEL	A	15.55	0	0	1.0	1.0	0.00	0.00	0	0	0.1	Conifer	2.28
932202	1-23-00081-DEL	B	30.60	0	0	1.0	1.0	0.00	0.00	0	0	0.1	Conifer	8.11
932202	1-23-00081-DEL	C	22.41	1	1	2.0	2.0	0.00	0.00	2	2	0.1	Conifer	2.22
932202	1-23-00081-DEL	E	25.83	0	0	1.1	1.1	0.00	0.10	20	20	1	Conifer	1.49
932202	1-23-00081-DEL	F	31.74	0	0	2.6	2.6	0.10	0.10	2	2	0.5	Conifer	11.0
932202	1-23-00081-DEL	G	11.32	0	0	3.3	3.3	0.00	0.00	1	1	1	Conifer	4.0
932203	1-23-00035-DEL	D	40.22	0	0	2.5	2.5	0.50	0.50	71	71	3	Conifer	12.93
932203	1-23-00035-DEL	H	11.03	1	1	0.0	0.0	0.00	0.00	0	0	0.5	Conifer	0.54
932302	1-23-00180-DEL	A	27.87	0	0	2.0	2.0	0.00	0.10	5	5	0.5	Conifer	7.45
942201	1-22-00141-DEL	A	43.42	0	0	1.5	1.5	0.00	0.00	6	6	1	Conifer	9.43
942201	1-22-00141-DEL	B	23.16	0	0	3.7	3.7	0.00	0.00	8	8	0.5	Conifer	2.21
942201	1-22-00141-DEL	C	29.69	0	0	2.2	2.2	1.00	1.00	5	5	2	Conifer	7.57
942201	1-22-00141-DEL	F	39.89	0	0	1.8	1.8	0.00	0.00	9	9	1	Conifer	9.54
942201	1-22-00141-DEL	G	32.92	0	0	1.3	1.3	1.00	0.50	2	2	1	Conifer	10.0
942201	1-22-00141-DEL	I	30.73	0	0	2.2	2.2	0.00	0.00	3	3	1	Conifer	6.09
942201	1-22-00141-DEL	M	26.54	0	0	1.5	1.5	0.00	0.00	2	2	2	Conifer	4.38

THP #	State ID	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/acre	Post green trees/acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees #	Post scorecard trees #	Large woody debris/acre	Dominance	RMZ and Geo Acres
942201	1-22-00141-DEL	P	17.62	0	0	1.2	1.2	0.00	0.00	1	1	1	Conifer	5.93
942201	1-22-00141-DEL	Q	36.08	0	0	3.5	3.5	0.50	0.50	8	8	2	Conifer	1.53
942201	1-22-00141-DEL	R	14.38	0	0	4.0	4.0	0.50	0.50	11	11	1	Conifer	4.12
942301	1-23-00082-DEL	A	40.27	0	0	2.7	2.7	0.50	0.00	46	46	2	Conifer	10.65
952201	1-22-00172-DEL	A	25.80	0	0	2.1	2.1	0.00	0.00	5	5	2	Conifer	3.35
952201	1-22-00172-DEL	B	29.61	1	1	1.8	1.8	0.50	0.50	3	3	2	Conifer	0.29
952201	1-22-00172-DEL	C	28.05	1	1	2.3	2.3	0.50	0.50	15	15	2	Conifer	1.37
952201	1-22-00172-DEL	D	33.55	0	0	1.2	1.2	0.50	0.50	7	7	2	Conifer	13.46

Appendix III. Vacant and Recolonized owl sites on the Green Diamond Resource Company study area, 1993-2024.

Site Name	Year(s) Vacant	Year(s) Recolonized
4107	1997, 2023	2010
4128	1995	2010
4230 #2	1994	2010
4300	1996	2011
4800	2014	
4850	2008	
4910	2021	
6007	1994, 2000	1997, 2001
6000 CF	2019	
6400	2007	
6600	2000	2004
6610	2013	2015
7000	2005	2006
A400	2001	
Aldo Dusi	2000	2003
Arrow Mills	2009	
B.C. Powerline	1996	2014
B1200	1998	
Bald Mt. Creek	2008	
Bear Gulch	2002	
Big Lagoon Mill	2007	
Blue Creek Cabin	2009	
Boulder Creek #1	1998	2011
Boulder Creek #3	2007	2008
Boulder Creek #4	2000	2012
Boulder Creek #5	2007, 2021	2010
Boulder Creek #6	2020	2021
Boundary Creek	2002	2005
Bradshaw	2007	
Bug Creek	2000	
Butler Ridge	2010	
C2300	1998	2001
Cabin North	2001	
Cal Barrel	2012	2019
Camp Bauer	2008	2009
Canyon Creek #2	2000	
Canyon North	2023	2024
Coyote Park	2018	
Crowsfoot	2005	
D100	1999	2023

Site Name	Year(s) Vacant	Year(s) Recolonized
Dandy Creek	2005	
Deer Creek	1999	
Denman	1995, 2009	2002, 2020
Devil's Creek	1994	1999
Dolf Creek	1998	
Dolly Varden	2009	
Dominie Creek	1994	
East Fork Hunter	2024	
East Goodman	2016	
Eighteen Creek	2001	
Fernwood	2024	
Fickle Hill Devil	2017	
Fielder Creek	2002	2020
GAP	2007	
Girls Camp	1997, 2021	2013, 2022
Girls Camp North	2001	
Graham Creek	2019	
Graham Ridge	2000, 2017	2013
Graham West	1997	
H132	1995	
Hancorne Prairie	1999	
Humbug South	1997	
Hunter 100	2017	
Hunter 110	1999	2018
Hunter 300	1999, 2008, 2015	2003, 2010
Hunter 400	2024	
Hunter 410	1996	
Hunter 510	1996, 2019	2014
HWY 101	2013	
Jacoby Barnum	2003	
K&K 1400	2000	
K&K 400	2001	
K&K 600	2001	
Klamath Mill	2011	
L2000	1996	
Lindsay Creek	1998	
Liscom Hill	2001	
Little Boulder Creek	2018	
Little Deer Creek	1997	1998
Little River #1	2010	
Little River #2	2015	2016
Little Surpur	2001	
Lower Beach Creek	2012	2014

Site Name	Year(s) Vacant	Year(s) Recolonized
Lower Dolf Creek	2016	
Lower Pardee	2020	
Lower Roach	1995, 2007	1996, 2021
Lower SF Winchuck	2017	
Lower Simpson	2014	2016
Lower South Fork #1	2004	
Lower South Fork #2	2014	
Lower Stevens Creek	2012	
Lower Tulley Creek	2003, 2015	2007
Lucchesi SPI	2004	2017
Lupton Creek #2	2001, 2005	2002, 2006, 2009
M1150	1995	1996
Madrone Creek	1997, 2007	2001
Madrone South	2008, 2020	2015
Maple B.L. #1	2002	
Maple Creek Bridge	2007	2009
Mather #2	2002	2006
McDonald Creek	2001	
McGarvey Creek	1998	
Mettah Creek #1	1994	
Mettah Creek #2	1999	
Middle Ribar	2010	2015
Middle Tulley Creek	1996	
Mill West	2000, 2019	2015
Miller Ridge	2019	
M-Line Creek	2009	
Morek Creek	2007	2009
Morgan Creek	2008	2011
Mt. Andy	2018	
NF1300	2007, 2018	2009
Noisy Creek	1996, 2014	1997
Noname Creek	2015	2024
North Fork Maple Creek	2004	
Notchkoo	1996	1997
Nursery	2018	
Old 299 #2	2006	
Old 299 Pine Creek	2018, 2023	2020
Omagar Creek	2003	
Panther Creek	2020	
Panther East	2005	
Pardee Creek	1995	
Pecwan Creek	2015	
Pollock Creek #1	1995	

Site Name	Year(s) Vacant	Year(s) Recolonized
Pollnow Peak	2020	
Powerline East	2015, 2021	2017
Powerline North	2019	2021
Puter Creek	2019	
Quarry Creek	2011	2013
R-8-1	2009	2011
R13	2004, 2022	2009
R1400	2008	2021
R15	2008	
Rattlesnake Ranch	2020	2022
Redwood House	2006, 2023	2010
R-Line	2021	
Roach LP	1998	
Rock Ranch	2004	2017
Rocky Gulch	2000	
Rowdy Creek	1992	
Ryan Creek	2022	
S12	1999	
Salmon Creek #4	1996	2009
Sampson	1993	
SF Ah Pah Creek	2003	
Snow Camp Creek	2009	
Stevens Creek East	2023	
Stevens Creek SPI	2021	
Summit West	1997	
Sunny Slope	2022	
Surpur Creek	1998	
Surpur Mouth	1996	
T-Line	2022	
T300	2003,	2004
Tectah Mouth	2001	
Terwer 200	2001	
Three Cabins	2014	
Tom Creek	2002	
Toss-Off South	2006	
Tree Farm	2003, 2012	2004, 2013
Tree Farm North	1996	2003
Trouble Creek Turwar	2018	
Turwar CF	2022	
Twin Lakes Kinsey	2019	
U10	2000	
U700	1997	
Upper Beach Creek	2016	

Site Name	Year(s) Vacant	Year(s) Recolonized
Upper Bear Gulch	2017	
Upper Devil's Creek	2015	
Upper Little River	2009, 2018	2015
Upper Maple BL	2011, 2024	2016
Upper Maple Creek	1995	2009
Upper Morgan	2008	
Upper Pardee	1997, 2022	2019
Upper Ribar	2002	2022
Upper Roach Creek	2002	2012
Upper South Fork #1	2012	
Upper South Fork #2	2002	
Upper Tulley Creek	1999	
W. Goodman Prairie	2001	
W400	1998, 2021	2008
West Fork Stevens	2006	
Weyerhauser Shop	2000	
Williams Ridge	1998, 2006	2002, 2013
Windy Point	2006, 2023	2010
Wiregrass 200	2018	
WM1600	1998	
WM200	2008	

Appendix IV. List of site names, matching state master owl numbers, site status, and barred owl influence for northern spotted owl sites located on the Green Diamond demographic study area and/or the Green Diamond ownership in 2024.

Site	Master Owl Number	Site Status	Barred Owl Influence
4076	HUM0207	Occupied Perennial	Yes
4107	HUM0201	Vacant	No
4128	HUM0202	Occupied Perennial	Yes
4300	HUM0208	Occupied Perennial	No
4800	HUM1016	Unoccupied Perennial	No
4850	HUM0217	Vacant	No
4851	HUM0182	Occupied Perennial	Yes
4910	HUM1030	Vacant	No
5700	HUM0211	Occupied Perennial	No
6007	HUM0856	Occupied Perennial	No
6400	HUM0216	Vacant	No
6600	HUM0300	Unoccupied Perennial	Yes
6610	HUM0217	Occupied Perennial	No
7000	HUM0214	Unoccupied Perennial	Yes
4230 #1	HUM0200	Occupied Perennial	Yes
4230 #2	HUM0206	Unoccupied Perennial	Yes
6000 CF	HUM0056	Vacant	No
A400	DNT0124	Vacant	No
Aldo Dusi	HUM0397	Occupied Perennial	Yes
Ambrose	HUM0682	Unoccupied Perennial	Yes
Arrow Mills	DNT0069	Vacant	No
B.C. Powerline	HUM0663	Unoccupied Perennial	Yes
B1200	HUM0431	Vacant	No
Bald Mt. Creek	HUM0291	Vacant	No
Bear Creek	HUM0465	Occupied Perennial	Yes
Bear Gulch	HUM0577	Vacant	No
Beaver Creek	HUM0409	Occupied Perennial	Yes
Beaver West	HUM0675	Unoccupied Perennial	Yes
Big Lagoon Mill	HUM0518	Vacant	No
Blue Blossom	HUM1029	Occupied Perennial	Yes
Blue Creek Cabin	HUM0073	Vacant	No
Blue Slide Creek	HUM0378	Unoccupied Perennial	No
Boulder Creek #1	HUM0383	Occupied Perennial	Yes
Boulder Creek #2	HUM0384	Occupied Perennial	Yes
Boulder Creek #3	HUM0385	Unoccupied Perennial	Yes
Boulder Creek #4	HUM0663	Occupied Perennial	No

Site	Master Owl Number	Site Status	Barred Owl Influence
Boulder Creek #5	HUM0857	Vacant	No
Boulder Creek #6	HUM1123	Unoccupied Perennial	No
Boulder Creek #7	HUM1124	Occupied Perennial	Yes
Boundary Creek	HUM0204	Occupied Perennial	No
Bradshaw	DNT0035	Vacant	No
Butler Ridge	HUM0391	Vacant	No
C2300	HUM0312	Occupied Perennial	No
Cabin North	HUM0463	Vacant	No
Cal Barrel	HUM0265	Unoccupied Perennial	Yes
Cal Barrel Washout	HUM0464	Occupied Perennial	No
Camp Bauer	HUM0233	Occupied Perennial	Yes
Camp Gate	HUM1022	Occupied Perennial	Yes
Camp Gate North	HUM0382	Unoccupied Perennial	Yes
Camp Gate South	HUM0380	Occupied Perennial	Yes
Canyon Creek #1	HUM0181	Occupied Perennial	No
Canyon Creek #2	HUM0302	Vacant	No
Canyon North	HUM0737	Recolonized	No
Christmas Tree Prairie	Not Assigned	Newly Colonized	No
Clear Creek	HUM0438	Unoccupied Perennial	Yes
Copper Creek	DNT0005	Unoccupied Perennial	Yes
Coyote North	HUM0411	Unoccupied Perennial	Yes
Coyote Park	HUM0456	Vacant	No
Crowsfoot	HUM0978	Vacant	No
Cuddeback	HUM1148	Unoccupied Perennial	No
D100	DNT0100	Unoccupied Perennial	Yes
Dandy Creek	DNT0123	Vacant	No
Davis Creek	HUM0449	Unoccupied Perennial	Yes
Delilah Creek	DNT0155	Unoccupied Perennial	Yes
Denman Creek	HUM0285	Occupied Perennial	Yes
Devil's Creek	HUM0215	Occupied Perennial	Yes
Dick Bird	HUM0284	Occupied Perennial	Yes
Dolf Creek	HUM1043	Vacant	No
Dolly Varden	HUM0334	Vacant	No
Dominie Creek	DNT0054	Vacant	No
Dominie Dogleg	DNT0159	Unoccupied Perennial	No
Dominie Winchuck	DNT0165	Unoccupied Perennial	Yes
Dry Creek	HUM0210	Unoccupied Perennial	Yes
East Fork Hunter	DNT0095	Vacant	No
East Goodman	HUM1001	Vacant	No
EBF	HUM0236	Occupied Perennial	Yes

Site	Master Owl Number	Site Status	Barred Owl Influence
Eighteen Creek	HUM0919	Vacant	No
Fern Prairie	HUM1100	Unoccupied Perennial	Yes
Fernwood	HUM0487	Vacant	No
Fickle Hill Devil	HUM1093	Vacant	No
Fickle Jacoby	HUM1149	Occupied Perennial	No
Fielder Creek	HUM0337	Occupied Perennial	No
Freeman	HUM0301	Occupied Perennial	No
GAP	HUM0472	Vacant	No
Garrett Creek	HUM0410	Unoccupied Perennial	Yes
Garrett South	HUM0677	Unoccupied Perennial	Yes
Gilbert Creek	DNT0162	Occupied Perennial	No
Girls Camp	HUM0379	Occupied Perennial	Yes
Graham Creek	HUM0374	Vacant	No
Graham Ridge	HUM0578	Vacant	No
Graham West	HUM0741	Vacant	No
Guptil Gulch	HUM1028	Unoccupied Perennial	Yes
H131	HUM0416	Unoccupied Perennial	Yes
H132	HUM1044	Vacant	No
Halagow West	HUM0999	Unoccupied Perennial	Yes
Hancorne Prairie	HUM0420	Vacant	No
Hancorne Ranch	HUM0317	Unoccupied Perennial	Yes
Henderson Gulch	HUM0063	Unoccupied Perennial	Yes
HRC 372	HUM1104	Unoccupied Perennial	Yes
Hulla Crup Turwar	DNT0156	Unoccupied Perennial	Yes
Hunter 100	DNT0149	Vacant	No
Hunter 110	DNT0095	Occupied Perennial	No
Hunter 240	DNT0147	Unoccupied Perennial	Yes
Hunter 300	DNT0073	Vacant	No
Hunter 400	DNT0163	Vacant	No
Hunter 410	DNT0117	Vacant	No
Hunter 500	DNT0073	Unoccupied Perennial	Yes
Hunter 510	DNT0047	Vacant	No
Hunter CF	DNT0154	Unoccupied Perennial	No
HWY 101	DNT0094	Vacant	No
J1600	HUM1000	Unoccupied Perennial	Yes
Jackson Hill	HUM0672	Occupied Perennial	Yes
Jacoby Creek #1	HUM0147	Unoccupied Perennial	Yes
Jacoby Creek #2	HUM0394	Occupied Perennial	Yes
Jacoby SPI	HUM0393	Unoccupied Perennial	Yes
Jiggs Creek	HUM0292	Unoccupied Perennial	Yes

Site	Master Owl Number	Site Status	Barred Owl Influence
Johnson Creek	HUM0681	Unoccupied Perennial	Yes
Jurin	HUM0587	Unoccupied Perennial	Yes
K&K 1400	HUM0676	Vacant	No
K&K 400	HUM0674	Vacant	No
K&K 600	HUM0673	Vacant	No
Klamath Bar	HUM0402	Unoccupied Perennial	Yes
Klamath Mill	DNT0071	Vacant	No
Korbel Mill	HUM1125	Occupied Perennial	Yes
L2000	HUM0222	Vacant	No
Lindsay Creek	HUM0403	Vacant	No
Liscom Hill	HUM0395	Occupied Perennial	No
Little Boulder Creek	HUM1032	Vacant	No
Little Deer Creek	HUM0310	Unoccupied Perennial	Yes
Little River #1	HUM0549	Vacant	No
Little River #2	HUM0747	Unoccupied Perennial	No
Little Salmon Creek	HUM0225	Unoccupied Perennial	Yes
Little Salmon North	HUM1111	Occupied Perennial	No
Little South Fork	HUM0444	Vacant	No
Little Surpur	HUM0429	Vacant	No
Lord Ellis Creek	HUM0400	Occupied Perennial	Yes
Lord Ellis North	HUM0792	Unoccupied Perennial	Yes
Lower Beach Creek	HUM0474	Unoccupied Perennial	Yes
Lower Dolf Creek	HUM0404	Vacant	No
Lower Dry Creek	HUM0209	Occupied Perennial	Yes
Lower McCloud Creek	HUM0432	Unoccupied Perennial	Yes
Lower Pardee	HUM0389	Vacant	No
Lower Roach	HUM0459	Unoccupied Perennial	Yes
Lower SF Winchuck	DNT0157	Vacant	No
Lower Simpson	HUM1017	Occupied Perennial	Yes
Lower South Fork #1	HUM0750	Vacant	No
Lower South Fork #2	HUM0749	Vacant	No
Lower Stevens Creek	HUM0009	Occupied Perennial	Yes
Lower Tulley Creek	HUM0418	Vacant	No
Lupton Creek #1	HUM0297	Unoccupied Perennial	Yes
Lupton Creek #2	HUM0296	Unoccupied Perennial	Yes
Lupton Creek #3	HUM0399	Occupied Perennial	Yes
Mad River Overlook	HUM1102	Unoccupied Perennial	Yes
Mad River STS	HUM0205	Unoccupied Perennial	No
Madrone Creek	HUM0741	Vacant	No
Madrone South	HUM0657	Vacant	No

Site	Master Owl Number	Site Status	Barred Owl Influence
Maple B.L. #1	HUM0519	Vacant	No
Maple Creek #1	HUM0304	Occupied Perennial	Yes
Maple Creek #2	HUM0669	Occupied Perennial	Yes
Maple Creek Bridge	HUM0388	Unoccupied Perennial	Yes
Mather #1	HUM0736	Unoccupied Perennial	Yes
Mather #2	HUM0836	Unoccupied Perennial	Yes
McCloud Creek	HUM0307	Unoccupied Perennial	Yes
McDonald Creek	HUM0840	Vacant	No
McGarvey Creek	HUM0697	Vacant	No
Mettah Creek #1	HUM0419	Vacant	No
Mettah Creek #2	HUM0679	Vacant	No
Mettah Forks	HUM0425	Occupied Perennial	Yes
Mettahlsome Creek	Not Assigned	Newly Colonized	No
Middle Devils Creek	Not Assigned	Newly Colonized	No
Middle Dry Creek	Not Assigned	Newly Colonized	No
Middle Salmon Creek	HUM0838	Unoccupied Perennial	Yes
Middle Stevens Creek	HUM0370	Occupied Perennial	No
Middle Tulley Creek	HUM0458	Vacant	No
Mill West	HUM0407	Vacant	No
Miller Ridge	HUM1035	Vacant	No
M-Line Creek	HUM0338	Vacant	No
Morek Creek	HUM0421	Unoccupied Perennial	Yes
Mt. Andy	HUM0381	Vacant	No
Mule Creek	HUM0235	Unoccupied Perennial	Yes
Mynot School	DNT0148	Unoccupied Perennial	Yes
N. Goodman Prairie	HUM0376	Occupied Perennial	Yes
NF1300	HUM0234	Vacant	No
Noisy Creek	HUM0299	Vacant	No
Noname Creek	HUM0392	Recolonized	No
Noname North	HUM1087	Unoccupied Perennial	Yes
North Fork Maple Creek	HUM0745	Vacant	No
Notchkoo	HUM0423	Unoccupied Perennial	Yes
Nursery	HUM0199	Vacant	No
Oil Creek	HUM0239	Occupied Perennial	No
Old 299 #1	HUM0295	Occupied Perennial	Yes
Old 299 #2	HUM0294	Vacant	No
Old 299 Pine Creek	HUM0287	Vacant	No
Omagar Creek	DNT0138	Vacant	No
Panther Bridge	HUM0457	Unoccupied Perennial	Yes

Site	Master Owl Number	Site Status	Barred Owl Influence
Panther Creek	HUM0489	Vacant	No
Panther East	HUM0946	Vacant	No
Pardee Creek	HUM0191	Vacant	No
Pardee South	HUM1002	Unoccupied Perennial	Yes
Peacock Creek	DNT0050	Unoccupied Perennial	Yes
Pecwan Creek	HUM1045	Vacant	No
PL236	HUM0938	Occupied Perennial	No
PL3	HUM0576	Unoccupied Perennial	Yes
Pollnow Peak	HUM1112	Vacant	No
Pollock Creek #1	HUM0290	Vacant	No
Pollock Creek #2	HUM0396	Occupied Perennial	Yes
Poverty Creek	HUM0289	Unoccupied Perennial	Yes
Powerline East	HUM0981	Vacant	No
Powerline North	HUM0390	Occupied Perennial	No
Puter Creek	HUM1009	Vacant	No
Quarry Creek	HUM0203	Occupied Perennial	No
Quiet Lane	HUM1037	Occupied Perennial	No
R13	HUM1018	Vacant	No
R1400	DNT0137	Unoccupied Perennial	Yes
R15	HUM0577	Vacant	No
R200	HUM0162	Occupied Perennial	No
R300	Not Assigned	Newly Colonized	No
R-8-1	HUM0987	Unoccupied Perennial	Yes
Rattlesnake Ranch	HUM1038	Unoccupied Perennial	Yes
Redwood House	HUM0625	Vacant	No
R-Line	HUM1091	Vacant	No
Roach LP	HUM0422	Vacant	No
Rock Ranch	HUM0185	Occupied Perennial	Yes
Rocky Gulch	HUM0446	Vacant	No
Roddiscraft Powerline	HUM0305	Occupied Perennial	Yes
Rohner Creek	HUM1023	Occupied Perennial	Yes
Rowdy Creek	DNT0053	Vacant	No
Ryan Creek	HUM0921	Vacant	No
S12	HUM0462	Vacant	No
Salmon Creek #2	HUM0264	Occupied Perennial	No
Salmon Creek #3	HUM0238	Unoccupied Perennial	Yes
Salmon Creek #4	HUM0274	Unoccupied Perennial	Yes
Salmon Creek #5	HUM1024	Unoccupied Perennial	Yes
Salmon Creek East	HUM0923	Occupied Perennial	Yes
Salmon Creek Far East	HUM1025	Occupied Perennial	Yes

Site	Master Owl Number	Site Status	Barred Owl Influence
Sampson	HUM0306	Vacant	No
Savoy Creek	DNT0051	Unoccupied Perennial	No
SF Ah Pah Creek	HUM0685	Vacant	No
SF Bald Mt. Creek	HUM0293	Occupied Perennial	Yes
Simpson Creek	HUM0213	Occupied Perennial	Yes
Snow Camp Creek	HUM0373	Vacant	No
Spring Prairie	HUM1092	Occupied Perennial	No
Stevens Creek East	HUM0858	Vacant	No
Stevens Creek SPI	HUM1126	Vacant	No
Stone Lagoon	HUM0743	Unoccupied Perennial	Yes
Substation	HUM0387	Occupied Perennial	Yes
Sullivan Gulch	HUM1026	Unoccupied Perennial	No
Summit West	HUM0455	Vacant	No
Sunny Slope	HUM1039	Vacant	No
Surpur Creek	HUM0428	Vacant	No
Surpur Mouth	HUM0687	Vacant	No
Sweet Flat #1	HUM1158	Occupied Perennial	No
T300	HUM0427	Occupied Perennial	Yes
Tectah Mouth	HUM0461	Occupied Perennial	No
Terwer 200	DNT0139	Vacant	No
Three Cabins	HUM0377	Unoccupied Perennial	Yes
Tilley Slide	HUM0273	Occupied Perennial	Yes
Tilley Windy	HUM0398	Unoccupied Perennial	Yes
Tip Top Ridge	HUM1113	Unoccupied Perennial	Yes
T-Line	DNT0102	Vacant	No
Tom Creek	HUM0517	Vacant	No
Toss-Off South	HUM0405	Unoccupied Perennial	Yes
Toss-Up Creek	HUM0406	Unoccupied Perennial	Yes
Tree Farm	HUM0386	Occupied Perennial	Yes
Tree Farm North	HUM0668	Occupied Perennial	Yes
Trouble Creek Turwar	DNT0158	Vacant	No
Turwar CF	DNT0160	Vacant	No
Twin Lakes Kinsey	HUM0192	Vacant	No
U10	DNT0101	Vacant	No
U700	DNT0116	Vacant	No
Upper Beach Creek	HUM0476	Vacant	No
Upper Bear Gulch	HUM1088	Vacant	No
Upper Black Dog Creek	HUM1040	Unoccupied Perennial	Yes
Upper Canyon Creek	HUM0665	Occupied Perennial	Yes
Upper Devil's Creek	HUM1027	Vacant	No

Site	Master Owl Number	Site Status	Barred Owl Influence
Upper Little River	HUM0920	Vacant	No
Upper Maple BL	HUM0475	Vacant	No
Upper Maple Creek	HUM1041	Occupied Perennial	No
Upper Mynot Creek	DNT0153	Unoccupied Perennial	Yes
Upper Noisy Creek	HUM1127	Occupied Perennial	Yes
Upper Noname Creek	HUM0582	Unoccupied Perennial	Yes
Upper Palmer Creek	HUM0671	Unoccupied Perennial	Yes
Upper Pardee	HUM0452	Vacant	No
Upper Ribar	HUM0231	Unoccupied Perennial	No
Upper Roach Creek	HUM0412	Occupied Perennial	Yes
Upper SF Winchuck	DNT0161	Unoccupied Perennial	Yes
Upper South Fork #1	HUM0748	Vacant	No
Upper South Fork #2	HUM0226	Vacant	No
Upper Stevens Creek	HUM0485	Occupied Perennial	No
Upper Toss-Off	HUM0791	Unoccupied Perennial	Yes
Upper Tulley Creek	HUM0414	Vacant	No
Van Cleave South	HUM0824	Unoccupied Perennial	Yes
W. Goodman Prairie	HUM0375	Vacant	No
W100	DNT0104	Unoccupied Perennial	Yes
W302	DNT0072	Unoccupied Perennial	Yes
W400	DNT0105	Vacant	No
Walsh	HUM0237	Occupied Perennial	Yes
Weyerhauser Shop	HUM0426	Vacant	No
Wiggins Cabin	HUM1159	Unoccupied Perennial	No
Wiggins Pond	HUM0977	Unoccupied Perennial	Yes
Williams Ridge	HUM0283	Unoccupied Perennial	Yes
Willys Corner	Not Assigned	Possible New Colonization	No
Winchuck River	DNT0152	Occupied Perennial	Yes
Windy North	HUM0589	Unoccupied Perennial	Yes
Windy Point	HUM0746	Vacant	No
Wiregrass 200	HUM1101	Vacant	No
Wiregrass Ridge	HUM1147	Unoccupied Perennial	No
WM1600	HUM0417	Vacant	No
WM200	HUM0413	Vacant	No
WM400	HUM0984	Unoccupied Perennial	Yes
Wood Ranch	HUM1019	Occupied Perennial	Yes

*** Not Assigned –** master owl number not yet issued by CNDDB spotted owl database manager. Sites in this category were either newly colonized in the current reporting year or possible sites that warrant further investigation in the next reporting year in order to determine the site status.

****Unknown –** site status unknown due to lack of protocol surveys.

Appendix V. Summary of northern spotted owls newly banded, recaptured, or resighted on the Green Diamond Demographic Study Area 2024.

Band Number	Site Name (Capture/Resight Location)	Master Owl Number[1]	Band Class[2]	Sex	Age[3]	Auxiliary Band Type	Auxiliary Band Primary Color	Auxiliary Band Secondary Color
1687-14095	4128	HUM0202	RS	M	A	Bicolor	Black	Yellow
2187-14998	4300	HUM0208	RC	F	A	Triangles	Blue	White
1687-14075	4300	HUM0208	RS	M	A	Bicolor	Yellow	Red
1687-14023	5700	HUM0211	RS	M	A	Diagonal	Blue	White
1957-00217	6007	HUM0856	RS	F	A	Diagonal	Blue	White
1957-00264	6610	HUM0217	RS	F	A	Diagonal	Green	White
1687-13991	6610	HUM0217	RS	M	A	Solid	Blue	Blue
1177-49554	4230 #1	HUM0200	RS	M	A	Dotted	White	Black
1177-41878	4230 #1	HUM0200	RS	F	A	Dotted	Green	White
1947-54781	Aldo Dusi	HUM0397	RS	M	A	Dotted	White	Black
1957-00195	Bear Creek	HUM0465	RS	F	A	Triangles	Red	White
1687-14054	Bear Creek	HUM0465	RS	M	A	Triangles	Green	White
1177-49505	Blue Blossom	HUM1029	RS	F	A	Bicolor	Red	Black
2187-15082	Boulder Creek #1	HUM0383	NB	F	S2	Solid	Orange	Orange
1947-55106	Boulder Creek #1	HUM0383	NB	M	A	Diagonal	Yellow	Black
1957-00216	Boulder Creek #4	HUM0663	RS	F	A	Dotted	Green	White
1687-13984	Boulder Creek #4	HUM0663	RS	M	A	Triangles	Yellow	Black
1957-00224	Boulder Creek #7	HUM1124	RS	F	A	Bicolor	White	Pink
1687-14062	Boulder Creek #7	HUM1124	RS	M	A	Bicolor	Black	Yellow
1957-00161	Boundary Creek	HUM0204	RS	F	A	Diagonal	Purple	White
1687-13918	Boundary Creek	HUM0204	RS	M	A	Bicolor	Green	White
1957-00253	Cal Barrel Washout	HUM0464	RS	F	A	Dotted	Red	Black
1687-13905	Cal Barrel Washout	HUM0464	RS	M	A	Bicolor	White	Orange
1177-49563	Camp Bauer	HUM0233	RS	F	A	Dotted	White	Red
1177-49571	Camp Bauer	HUM0233	RS	M	A	Dotted	Yellow	Black
2187-14978	Camp Gate	HUM1022	RS	F	A	Diagonal	Pink	White
1957-00247	Camp Gate South	HUM0380	RS	F	A	Bicolor	Red	Black
1687-13945	Camp Gate South	HUM0380	RS	M	A	Bicolor	White	Yellow
1687-14100	Canyon Creek #1	HUM0181	RS	M	A	Triangles	Red	White
1947-54788	Canyon North	HUM0737	NB	M	S1	Solid	Black	Black
1947-54764	Denman Creek	HUM0285	RS	M	A	Triangles	Red	White
1947-54766	Denman Creek	HUM0285	RS	F	A	Dotted	Blue	White
1957-00259	Devil's Creek	HUM0215	RS	F	A	Bicolor	Black	White
1687-09353	Devil's Creek	HUM0215	RS	M	A	Solid	Orange	Orange
1957-00250	EBF	HUM0236	RS	F	A	Diagonal	Blue	Yellow
2187-14973	Fickle Jacoby	HUM1149	RS	F	A	Solid	Pink	Pink

Band Number	Site Name (Capture/Resight Location)	Master Owl Number[1]	Band Class[2]	Sex	Age[3]	Auxiliary Band Type	Auxiliary Band Primary Color	Auxiliary Band Secondary Color
1947-54761	Fickle Jacoby	HUM1149	RS	M	A	Solid	Yellow	Yellow
1957-00201	Fielder Creek	HUM0337	RS	F	A	Diagonal	Pink	White
1947-54786	Floater 4910	Not Assigned	NB	M	A	Solid	Purple	Purple
1857-10180	Floater Fulton Ranch	Not Assigned	RS	F	A	Diagonal	Purple	White
1957-00297	Freeman	HUM0301	RS	M	A	Bicolor	Yellow	Blue
2187-15009	Freeman	HUM0301	NB	F	A	Solid	Red	Red
2187-14976	Gilbert Creek	DNT0162	RS	F	A	Dotted	Green	White
1687-14093	Gilbert Creek	DNT0162	RS	M	A	Bicolor	Black	Yellow
1807-90607	HRC 369	HUM1103	RS	M	A	Bicolor	White	Black
1957-00294	Jackson Hill	HUM0672	RS	F	A	Bicolor	Black	Red
1957-00169	Korbel Mill	HUM1125	RS	F	A	Diagonal	Pink	White
1687-14089	Korbel Mill	HUM1125	RS	M	A	Bicolor	Red	White
1957-00228	Liscom Hill	HUM0395	RS	F	A	Diagonal	Red	Black
1687-14030	Liscom Hill	HUM0395	RS	M	A	Bicolor	White	Green
1807-90609	Little Salmon North	HUM1111	RS	M	A	Solid	Orange	Orange
1687-14021	Little Salmon North	HUM1111	RS	F	A	Diagonal	Pink	White
2187-14995	Lord Ellis Creek	HUM0400	RS	F	A	Diagonal	Orange	White
1687-14057	Lord Ellis Creek	HUM0400	RS	M	A	Triangles	Pink	White
1957-00209	Lower Dry Creek	HUM0209	RS	F	A	Diagonal	Yellow	Black
1687-13938	Lower Dry Creek	HUM0209	RS	M	A	Bicolor	White	Black
1687-14014	Lower Simpson	HUM1017	RS	M	A	Dotted	Yellow	Black
1947-55199	Lower Stevens Creek	HUM0009	RS	M	A	Triangles	Yellow	Black
1177-41868	Middle Devils Creek	Not Assigned	RS	F	A	Dotted	Blue	White
1947-54785	Middle Dry Creek	Not Assigned	RS	M	S2	Bicolor	White	Pink
1177-41874	Middle Dry Creek	Not Assigned	RS	F	A	Bicolor	Red	Yellow
1947-54787	N. Goodman Prairie	HUM0376	NB	M	S1	Dotted	Red	White
2187-14985	N. Goodman Prairie	HUM0376	NB	F	S1	Diagonal	Purple	White
1957-00281	Old 299 #1	HUM0295	RS	M	A	Triangles	Green	White
1957-00256	Old 299 #1	HUM0295	RS	F	A	Bicolor	White	Red
1957-00111	Powerline North	HUM0390	RS	F	A	Dotted	White	Blue
1807-68345	Quarry Creek	HUM0203	RS	M	A	Triangles	Yellow	Black
1947-54767	Quiet Lane	HUM1037	RS	M	A	Diagonal	Red	Black
1947-54765	R200	HUM0162	RS	M	A	Diagonal	Blue	White
2187-15011	R200	HUM0162	RS	F	A	Diagonal	Blue	Yellow
2187-15080	R300	Not Assigned	NB	F	A	Diagonal	Purple	White
1947-54784	Salmon Creek #2	HUM0264	NB	M	A	Diagonal	Red	Yellow

Band Number	Site Name (Capture/Resight Location)	Master Owl Number[1]	Band Class[2]	Sex	Age[3]	Auxiliary Band Type	Auxiliary Band Primary Color	Auxiliary Band Secondary Color
1957-00258	SF Bald Mt. Creek	HUM0293	RS	M	A	Triangles	Black	White
1687-14061	SF Bald Mt. Creek	HUM0293	RS	F	A	Dotted	White	Blue
2187-14979	Spring Prairie	HUM1092	RS	F	A	Diagonal	Orange	White
1947-54763	Sweet Flat #1	HUM1158	RS	M	A	Bicolor	Blue	White
1177-41832	Sweet Flat #1	HUM1158	RS	F	A	Bicolor	White	Black
1687-09371	T300	HUM0427	RS	M	A	Dotted	Pink	White
1947-55143	Tree Farm North	HUM0668	RS	M	A	Solid	White	White
2187-15002	Tree Farm North	HUM0668	RS	F	A	Bicolor	Blue	Yellow
1807-68332	Upper Canyon Creek	HUM0665	RS	M	A	Solid	Yellow	Yellow
1957-00223	Upper Canyon Creek	HUM0665	RS	F	A	Bicolor	White	Blue
1687-13960	Upper Maple Creek	HUM1041	RS	F	A	Bicolor	White	Green
1687-09324	Upper Maple Creek	HUM1041	RS	M	A	Bicolor	Pink	White
1957-00141	Upper Noisy Creek	HUM1127	RS	F	A	Bicolor	Red	White
1177-06899	Upper Noisy Creek	HUM1127	RS	M	A	Dotted	Blue	White
2187-15008	Upper Stevens Creek	HUM0485	RS	F	A	Dotted	Red	White
1687-14097	Upper Stevens Creek	HUM0485	RS	M	A	Dotted	White	Black
1687-13930	Walsh	HUM0237	RS	M	A	Bicolor	White	Blue
2187-14990	Winchuck River	DNT0152	NB	F	A	Triangles	Green	White
1687-13988	Winchuck River	DNT0152	RS	M	A	Solid	Red	Red
1947-55198	Wood Ranch	HUM1019	RS	M	A	Triangles	Blue	White

[1]Master Owl Number 'Not Assigned' indicates a site where the master owl number has not yet been issued by the CNDDB spotted owl database manager either due to the site being newly colonized in the current reporting period or due to a possible site designation indicating that further investigation is warranted in the next reporting period to determine the site status.
[2]Band Class explanation: RS = Resight, RC = Recapture, and NB = Newly Banded, RV = Recovered
[3]Age explanation: J = juvenile (hatch year), S1 – first-year subadult, S2 = second-year subadult, A = adult

Appendix VI. Inspection dates for all water tanks located within the Plan Area in 2024.

Tank ID	Tank Name	Inspection Date
1	7010	08/15/2024
2	2000 Drafting	07/31/2024
3	5000/Dry Creek	08/15/2024
4	U10 Terwar Creek Drafting	08/07/2024
5	BL1100	08/26/2024
6	BL2000	08/08/2024
7	BL3900	08/26/2024
8	C900	08/09/2024
9	Chaparrel	08/14/2024
10	CL South	08/16/2024
11	CR1300 Drafting	08/09/2024
12	CR2700 Drafting	08/09/2024
13	CR2900	08/14/2024
14	CR3000	08/09/2024
15	Crannell Well	08/15/2024
16	D1000/W1000	08/12/2024
17	D111/Ritmer Creek	08/12/2024
18	Fernwood	08/07/2024
19	Graham Creek Lower	08/14/2024
20	HC120	08/07/2024
21	HC130	08/07/2024
22	HC132	08/07/2024
23	J1100	10/02/2024
24	K&K 900 A	08/14/2024
25	K&K LR	08/23/2024
26	K&K North	08/05/2024
27	Little Boulder Creek	08/09/2024
28	Miller’s Road	08/14/2024
29	Noisy Creek	07/31/2024
30	Old-299	08/09/2024
31	R120 A	08/09/2024
32	R2000	07/31/2024
33	R4	07/30/2024
34	Ravine Creek	07/31/2024
35	Ribar	09/04/2024
36	Roddiscraft	08/07/2024
37	Snow Camp Powerline	08/05/2024

Tank ID	Tank Name	Inspection Date
38	T100 Bridge	09/05/2024
39	Teepo Ridge	08/05/2024
40	Twin Tanks A	09/24/2024
41	U10 Dandy Creek	08/07/2024
42	W2300	08/12/2024
43	Washington Gulch Drafting	09/16/2024
44	Wiregrass South	08/14/2024
45	Wiregrass North	07/30/2024
46	WM10	08/07/2024
47	WM200	08/09/2024
48	WM710	08/07/2024
49	4100	08/23/2024
50	A400 Bridge Drafting	08/26/2024
51	Arrow Mills Historic Mill A	08/08/2024
52	BH1900	08/07/2024
53	BL2011	08/08/2024
54	CP2000	09/26/2024
55	D1000 Culvert Yard	08/22/2024
56	DV2400	08/14/2024
57	H400 A	09/03/2024
58	HC1000	08/02/2024
59	Klamath Mill A	08/05/2024
60	Morgan Creek	08/28/2024
61	NF1000	08/14/2024
62	SA800	08/14/2024
*63	S-Line	08/14/2024
66	T150	07/30/2024
67	CR3100 A	08/09/2024
72	K&K 900 B	08/14/2024
73	Boulder Creek	08/14/2024
74	Twin Tanks B	09/24/2024
75	Klamath Mill B	08/05/2024
76	Klamath Mill C	08/05/2024
77	Klamath Mill D	08/05/2024
78	Klamath Mill E	08/05/2024
79	Klamath Mill F	08/05/2024
80	Klamath Mill G	08/05/2024
81	Hoppaw Creek A	09/11/2024
82	Hoppaw Creek B	09/11/2024

Tank ID	Tank Name	Inspection Date
83	Hoppaw Creek C	09/11/2024
84	Hoppaw Creek D	09/11/2024
85	Arrow Mills Historic Mill B	08/09/2024
86	Arrow Mills Historic Mill C	08/10/2024
87	Sweet Flat A	09/04/2024
*88	Sweet Flat B	09/04/2024
92	H400 B	09/03/2024
93	Arrow Mills Truck	08/20/2024
94	White House	08/15/2024
95	CR2000	08/15/2024
96	CR3100 B	08/09/2024
97	Turkey Foot	08/07/2024
98	R120 B	08/09/2024
99	Klamath Bar	08/19/2024
100	J1700	08/21/2024
101	Ambrose	08/21/2024

*Gaps in sequential numbering are the result of tanks that have been decommissioned and removed from the Plan Area.