

Pre-Operations Report

Operation Name: Proud Mary
County (%): Benton (32%) / Polk (68%)
Elevation: 1,313 – 1,939 ft
Legal Description: T10S R7W, Section(s) 5, 8

Tax Code(s):
BOF%: 100% **CSL%:** 0%
Sale Quarter: 4

I. VOLUME AND VALUE SUMMARY

Table 1. Types, Acres, and Value

Unit	Harvest Type	Anticipated Product ^c	Gross Acres	Net Acres	MBF/ Acre ^a	MBF/ Unit ^a	\$/MBF ^b	\$/Unit
1	CC	DF-M, RA-S	65	49	36.5	1,789	\$450	\$805,050
Total		Regeneration	65	49		1,789		
		Partial Cut	0	0				
						Gross Value		\$805,050
a. Estimated harvest volume per acre for Unit.						Project Costs		\$42,173
b. Estimated ‘price’ (excluding Project Costs)						Net Value		\$762,877
c. Anticipated Product (AA-B-C) – AA) SLI species code of the bid species, B) Size Class (S – small [average DBH < 15], M – medium [average DBH 15 to 23], L – large (average DBH > 23]), C) Special Product (P – Premium, H – Hardwood)								

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information

Unit	Stand ID	Measured/Imputed ^a	Species	Age	TPA	DBH	BA	SDI	Net Acres ^b
1	19114	I = 18010	DF,WH	78	187	15	238	62%	7
1	19118	I = 18329	RA,DF	73	239	13	219	60%	9
1	19119	I = 18010	DF,WH	78	187	15	238	62%	12
1	19120	I = 18046	DF,RA	73	113	21	279	63%	5
1	19134	M	DF,RA	78	164	16	236	60%	3
1	19135	I = 18657	DF,WH	23*	236	10	123	38%	5
1	19176	I = 18010	DF,WH	73	187	15	238	61%	8

- a. Identify the source of stand inventory information. Use the following codes: M = Measured SLI data, I = Imputed SLI data, P = Pre-Cruise Plots, O = other (if other, describe below).
- b. Net Acres have been rounded to the nearest whole acre in this table. Stand that comprise less than one acre of a harvest unit are not reported in this table, so the total "Net Acres" per unit in this table may not equal the total "Net Acres" per unit in table 1.

- * The stand boundary for 19135 is drawn incorrectly therefore the age is incorrect. This sale does not include any 23-year-old trees. The estimated age is 73. These acres are combined with Stand 19120 in the remainder of this document.
- These stands were planted but have no record of pre-commercial or commercial thinning.

Table 3. Additional Stand Information

Unit	Stand ID	Snags/ Acre ^a	Down Wood/ Acre ^b	Forest Health		
				SNC	Phellinus	Other ^c
1	19114	1	62			
1	19118	3	88			
1	19119	1	62			
1	19120	8	205			
1	19134	5	270			
1	19176	1	62			

- a. Identify the number of hard snags per acre (decay classes 1 and 2)
b. Identify the cubic feet per acre of hard down wood (decay classes 1 and 2)
c. Describe “Other” forest health issue.

III. WILDLIFE AND T&E SPECIES CONSIDERATIONS:

Foresters need to read the Biological Survey Tracking Form (BSTF) prior to sale layout in order to ensure all T&E related information is understood. (Consult the ODF Wildlife Biologist assigned to the District for the BSTF.)

1. A portion of the operation is within (Check all that apply):

☐ TAS ☒ NSO Circle or Home Range, or Baseline Thiessen (BA required)
☐ MMMA (BA required) ☐ None

2. Are Surveys for NSO being conducted for any portion of this operation?

☐ No ☒ Density Surveys ☐ Operational Surveys ☐ Combination (Density/Operational)

Notes:

3. Are Surveys for MM being conducted for any portion of this operation?

☒ Yes (Completed) ☐ No (Not habitat) ☐ N/A (outside of MM survey zone)

Notes: Surveys completed in 2022 and 2023.

- During the surveys for this sale there were significant detections of marbled murrelets (MM). A Marbled Murrelet Management Area (MMMA) will be designated in consultation with USFWS. The draft sale harvest boundary is based on an estimation of the MMMA location. The harvest area will be adjusted once the final MMMA is finalized.

4. Are there any additional considerations (FPA Resource Sites, Species of Concern sites/Plants [from ORBIC¹], big game habitat/management, other)?

☒ No ☐ Yes, please describe:

IV. DESIRED FUTURE CONDITION AND PRESCRIPTION:

Table 4. Stand Structure Information

Unit	Stand ID	Current	Desired Future	Net Acres ^a
1	19114	LYR	GEN	7
1	19118	UDS	GEN	9
1	19119	LYR	GEN	12
1	19120	UDS	GEN	10
1	19134	UDS	GEN	3
1	19176	LYR	GEN	8

a. Net Acres have been rounded to the nearest whole acre in this table. Stand that comprise less than one acre of a harvest unit are not reported in this table, so the total “Net Acres” per unit in this table may not equal the total “Net Acres” per unit in table 1.

Table 5. Partial Cut Prescription (Complete only for Partial Cut Harvests)

Unit	Harvest Type	Harvest Species	Residual			
			Species	TPA	BA	% SDI
1	CC					

V. HARVESTING AND ACCESS CONSIDERATIONS:

Table 6. Harvest System and Access Summary

Unit	Harvest System		Slope (%)	Area Access	Seasonal Access
	% Cable	% Ground			
1	100	0	35-65	Established	Combo

- Haul Route: Bonner Ridge spurs, across Hull-Oakes to Bonner Ridge Road, south to Shingle Creek Road and out Hoskins Road to Highway 223.
 - There is a locked gate on the spur road accessed by Bonner Ridge Road.
- Haul Route Condition: The SE 1/3 of the sale is accessible from an all-weather road. The rest of the sale is accessible from roads that are rocked but with an unknown amount of rock and will likely need to restrict hauling to dry weather access only on this portion of sale. The road through Hull-Oakes and back onto State has not been maintained in several years and is not the planned designated haul route for this sale. This road will be evaluated during sale layout to determine road condition and if it will be considered as a possible haul route for this sale. If this portion of road is not re-opened all of the timber sale will be hauled to the northeast to Bonner Ridge Road.
- Are easements required for the haul route? ☒ Yes ☐ No
 - It is unknown at this time if an easement will be needed from Hull-Oakes Lumber. The timber sale area was part of a land trade with Starker Forests about 15 years ago and there may be a permanent easement that followed with that land acquisition. Additional investigation will be done during sale layout.

Table 7. Transportation Management Summary (Miles)

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	0
Improve, Rock, and/or Maintain	0	0	2.6	0.6
Block (Dormant)	0	0	0	0.6
Vacate	0	0	0	0
Stream Crossings: install on existing road (IE)/replace on existing road (R)/install on new construction road (NC)				
Type F - SSBT ^a	0	0	0	0
Type F – Non-SSBT	0	0	0	0
Type N	0	0	0	0

a. Salmon Steelhead and Bull Trout (SSBT)

4. Rock Sources for this operation: District approved commercial rock source.
5. Are property line surveys required for this operation? ☐ Yes ☒ No
 - The north property line has been cut against and both north and east property lines were posted and blazed in 1992, see Polk County survey CS 12251. Likely to be sufficient evidence to retrace both lines without need for additional survey work.
6. Is there planned new road construction planned within RCAs/HCAs? ☐ Yes ☒ No

VI. AQUATIC RESOURCES:

1. Do any streams require additional review for the following?
 - Fish presence ☐ No ☒ Yes
 - Perennial/Seasonal: ☒ No ☐ Yes
 - H.E.R./P.D.F.T: ☒ No ☐ Yes
 - Unknown streams may exist within this sale but it is believed that these are seasonal or perennial and will not require fish presence surveys. Buffers shown on the map indicate where it is believed perennial streams are located. Streams will be verified during sale layout.
2. Is a portion of the operation within an Aquatic Anchor? ☒ No ☐ Yes, name:
3. Are any Points of Diversion (Domestic Water) located downstream within 3,000 feet of Operations? ☒ No ☐ Yes, describe protection measures:
4. Is there a Stream Enhancement Project planned? ☒ No ☐ Yes, please describe:

VII. SLOPE STABILITY ISSUES:

Table 8. Summary of Slope Stability Assessment

Unit	Harvest Review Complete?	Public Safety Review Complete?	Additional Comment
1	Y	Y	--

- **Geotech Review:** Initial geotechnical reviews have been completed and those findings have been incorporated into No Harvest buffers. Additional consultation with Geotechnical Specialists will be done during sale layout as needed.

VIII. RECREATION RESOURCES:

1. Recreation issues/coordination: ☒ No ☐ Yes, please describe:

IX. HISTORIC AND CULTURAL RESOURCES:

1. Has the sale been reviewed by a qualified archaeologist for potential historic or cultural resource presence?
☒ Yes ☐ No

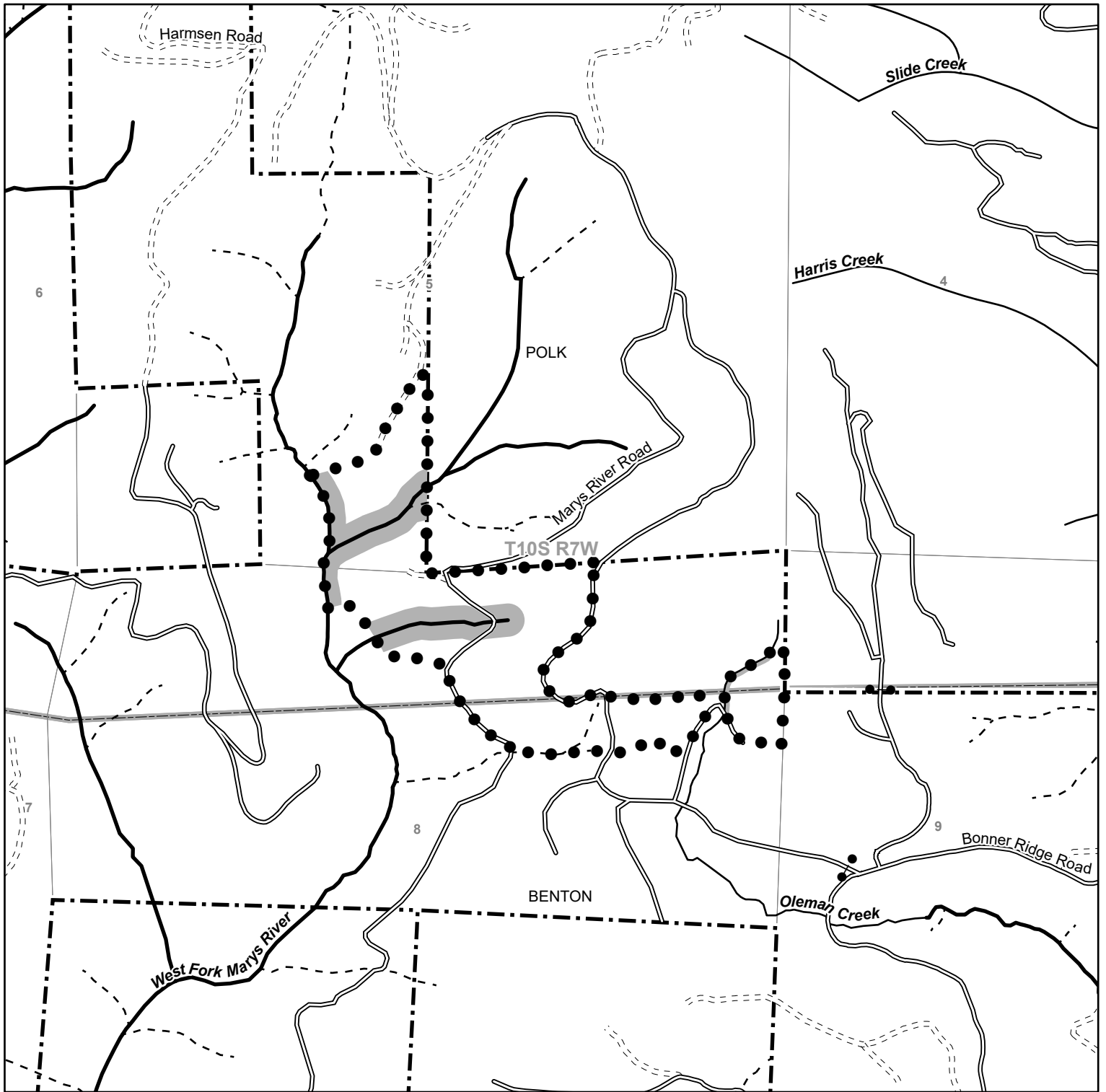
X. SCENIC RESOURCES:

1. Are there scenic resources in the vicinity of this operation that need additional consideration? ☒ No ☐ Yes, please describe:

XI. OTHER RESOURCE CONSIDERATIONS:

1. Has a review of the FLMCS layer determined that any resources not mentioned in the report above need additional planning? ☒ No ☐ Yes, describe below
2. Are there any other resources present that need additional consideration? ☐ No ☒ Yes, please describe:

Adjacent Landowners: Private-Industrial



Legend

- ● Sale Boundary
- No Harvest Area
- Gates
- Surfaced
- - - Unsurfaced
- Fish Stream
- Perennial Nonfish Stream
- - - Unknown Stream
- Ownership Boundary

FY 2025 West Oregon District
Proud Mary
Portions of Section 8, T10S, R7W, WM.
Benton County
Portions of Section 5, T10S, R7W, WM.
Polk County

Unit 1 49 Acres (CC)

State Forest Division
 02/15/2024

This product is for informational use and may not be suitable for legal, engineering, or surveying purposes. Variations may exist between and among data sets in use by the Department of Forestry. This map was developed using the Statewide Stream Layer.

1:12,000

1,000 500 0 1,000 Feet





Oregon

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"STEWARDSHIP IN FORESTRY"

TO: Cody Valencia, Unit Forester, West Oregon District

FROM: Dax Strubb, Wildlife Biologist

SUBJECT: **Preliminary Biological Assessment for the Proud Mary Timber Sale**

DATE: March 21, 2023

EXECUTIVE SUMMARY

Proud Mary is a planned modified clearcut timber sale in the 2024 Annual Operations Plan of the West Oregon District and is located within the provincial home range of the Little Green northern spotted owl (NSO) pair site.

The Little Green activity center (AC) was created following multiple responses during the 2008 survey season while conducting operational surveys on the West Oregon district.

Current habitat thresholds are approximately 67.5% and 46% suitable habitat within the 0.7- and 1.5-mile Little Green circles, above ODF policy standards. Following harvest there would be 67.5% and 44% suitable habitat in the 0.7- and 1.5-mile circles, respectively.

As currently proposed, the Proud Mary timber sale is expected to have a **low** risk of negatively affecting the occupancy and productivity of the Little Green northern spotted owl pair site.

INTRODUCTION

Purpose

The West Oregon District is proposing the Proud Mary sale as an operation in their 2024 Annual Operations Plan. The sale is located partially within the southeastern portion of the 1.5-mile provincial home range of the Little Green NSO pair site. This preliminary biological assessment (BA) presents relevant biological information needed to assess the potential effects of the Proud Mary timber sale on the Little Green pair site.

Policy Direction

Northern Spotted Owls

In the West Oregon District, the current standard for protection of northern spotted owls is to apply the standards identified in the ODF Northern Spotted Owl Policy (ODF 2017) which are adapted from the U.S. Fish and Wildlife Service's rescinded Incidental Take Guidelines (USFWS 1990). According to the Policy, the best available habitat is identified for a 70-acre core area; at least 500 acres of suitable habitat should be maintained within the 0.7 miles radius, and within the home range circle (in this case 1.5 miles), approximately 40 % suitable habitat (1,810 acres) should be maintained. Additional factors to be considered and documented in this BA include proximity of the operation to an AC, the prescription proposed, the size of the operation, the history of harvest and surveys near the AC, stand conditions, and other relevant factors.

BACKGROUND

Survey History and Site Information

In 2008, a male was heard three times at night and found twice during the day. He was the male from Rittner Creek (Salem BLM), 3.8 miles to the east. The site was established as Resident Single, and the AC was placed at the April 25, 2008, day location. In 2009, a male was heard in this area at night and again on the follow-up visit. There were no spotted owl responses in 2010 or 2011. In 2012, a daytime AC search was conducted at this site with no spotted owl responses. However, a pair of spotted owls was heard at night on the first night visit. An unknown *Strix* was also heard on the first visit, some distance from the pair response, but a pair of barred owls was found on that follow-up. A female spotted owl was also heard at night on the third visit and again on the follow-up. Site status was changed to pair in 2012. The AC remains at the 2008 location. In 2013, a daytime AC search was conducted at this site with no spotted owl responses. However, a spotted owl of unknown sex was seen at night during the second survey visit. From 2014 through 2016, a daytime AC search was conducted at this site with no spotted owl responses, and there were no known spotted owl responses during night surveys. However, unknown *Strix* juveniles were heard in the area on the sixth night visit in 2016, but there was no response on the follow-up, and it was likely barred owls. In 2017 through 2022, daytime AC searches were conducted at this site with no spotted owl responses, and there were no responses during night surveys (Turnstone 2022). Barred owls were detected in the area in 2009, 2010, 2012, and from 2014 through 2022 (Figure 1).

Stand Information

The Proud Mary timber sale currently consists of one harvest unit totaling 50 net acres. The timber sale is a 72 to 82-year-old Douglas-fir, western hemlock, and red alder mixed stands. The trees within the timber sale have an average diameter of 13 to 21 inches, approximately 113 to 239 trees per acre, and a basal area of 219 to 279 ft²/acre. Stands within the sale unit are classified as understory development and layered; meaning that portions of the sale have moved past closed single canopy and have developed a moderate understory shrub layer but have not had time to develop canopy layering; other portions have multiple cohorts of trees. Based on available cruise information, orthoimagery and field verification, I would consider this stand suitable dispersal, roosting, or foraging habitat for northern spotted owls.

ASSUMPTIONS

Defining the Home Range

According to “Procedures leading to Endangered Species Act compliance for the northern spotted owl” (USFWS 1990), the median home range size (based on 95% minimum convex polygon) for spotted owl pairs in the Oregon Coast Range is 4,766 acres, or the approximate equivalent of the area encompassed by a circle with a radius of 1.5 miles. Further clarification and interpretation of these procedures was provided in a 2010 ODF Decision Paper (ODF 2010). This paper stated that a GIS analysis of a 1.5-mile radius circle yields 4,525 acres which ODF will be using for analysis of home range circles in the coast range province. Although spotted owls generally do not have circular home ranges, in the absence of more specific information about the home range of this site, I assumed that a 1.5-mile radius circle around the activity center approximates the home range for the Little Green pair of owls. All stands for this analysis were digitized and calculated using ArcGIS Pro 3.0.3 software, 2012 LiDAR, and 2020 orthoimagery.

Defining Suitable Habitat

Although spotted owl habitat has generally been described as old growth, spotted owls are known to use a variety of forest types in this part of the Oregon Coast Range. Spotted owls are known to nest in stands as young as 60 to 80 years old on State Forest lands that have suitable nesting structures and are known to forage in even younger stands (Glenn and Anthony 2000).

To determine whether stand conditions provide habitat, I assessed the percent overstory canopy cover, understory layering, tree density and species diversity, average DBH, and downed wood at each stand (USFWS 1990). I compared general stand conditions observed in the field to ODF Stand Layer Inventory (SLI) and 2020 digital orthoimagery then classified them as suitable or non-suitable spotted owl habitat. I used SLI polygons as the basis for classification; however, modifications were made in GIS when it was apparent the SLI polygons did not reflect the current stand boundaries as seen in orthoimagery and field verification.

IMPACT ASSESSMENT AND DISCUSSION

Landscape Analysis

The following discussion assesses the habitat condition within the 0.7- and 1.5-mile circles of the Little Green spotted owl activity center, as recommended in the rescinded Incidental Take Guidelines and as required by ODF policy (Table 1, Figure 1).

0.7-mile circle

The Proud Mary timber sale will not cut any acres within the 0.7-mile circle for the Little Green spotted owl site. A habitat analysis of the Little Green site indicates that there are approximately 665 acres (67.5%) of suitable habitat within 0.7 miles of the activity center. There are currently no other approved operations within 0.7 miles of the activity center.

1.5-mile circle

The Proud Mary timber sale will clearcut 13 net acres within the 1.5-mile circle for the Little Green spotted owl site. A habitat analysis of the Little Green site indicates that there are approximately 2,077 acres (46%) of suitable habitat within 1.5 miles of the activity center. There is currently one other approved operation, on State-owned lands, within 1.5 miles of the activity center. The Bark Beetle Bailey timber sale was an approved 2023 AOP timber sale that was carried over to the 2024 AOP and would occur in roughly the same time frame as Proud Mary. If Bark Beetle Bailey and Proud Mary within the 1.5-mile circle are harvested, 1,984 acres (44%) of suitable habitat will remain within 1.5 miles of the activity center.

Discussion and Assessment of Other Relevant Factors

The northwesternmost part of the sale is roughly 1.3 miles from the Little Green AC. Harvest of the sale should not significantly fragment connectivity of suitable habitat throughout the circle. The Little Green AC is on State ownership. There have been large amounts of variable density thinning on state managed lands within the Little Green circle occurring over the last 25 years (Figure 2). Portions of these thinning sales were lightly or moderately thinned and have developed into suitable owl habitat at this date. Parts of the thinned stands have developed layering and filled in the canopy post-harvest. Snags and downed wood were retained prior to and following these planned operations.

PROTECTION AND AVOIDANCE MEASURES

The operation has been reviewed by an ODF Wildlife Biologist to assess impacts to spotted owl and their nesting habitat. The assessment included a field evaluation of habitat suitability and desktop analysis of species occurrence at the owl site. To consider the management activities a low risk of impacting spotted owl and their habitat, the following protection measures must be implemented for operations in the Little Green owl site and should be adhered to for the duration of the operation:

Seasonal Timing Restrictions (ODF 2017)

- 4.5 On all state forest lands, restrict the following activities that create disturbance that may disrupt normal spotted owl behavioral patterns during the critical nesting period (March 1 through July 7). Activities will be restricted only for pair sites, and within the distances from a nest tree or activity center given below until it is determined that the pair is not nesting, or has failed, or until July 7, whichever is sooner.
 - 4.5.a An impact pile driver, a jackhammer, or a rock drill within 60 yards.
 - 4.5.b A helicopter or a single engine airplane within 120 yards.
 - 4.5.c Motorized carriages and chainsaws within 65 yards (includes hazard trees, pre-commercial and commercial thinning, firewood cutting).
 - 4.5.d Non-motorized carriages and heavy equipment within 35 yards.
 - 4.5.e For the following activities, consult the Area Biologist for site-specific evaluation:
 - 4.5.e.i Burning within 0.5 miles.
 - 4.5.e.ii The use of explosives within 1.0 mile.

CONCLUSIONS AND RISK ASSESSMENT

Biological Risk

As currently proposed, the Proud Mary timber sale is expected to have a **low** risk of negatively affecting the occupancy and productivity of the Little Green spotted owl site. This assessment is based on the following factors:

- There will be approximately 665 acres (67.5%) of suitable habitat within the 0.7-mile circle following the harvest of Proud Mary;
- There will be approximately 1,984 acres (43.8%) of suitable habitat within the 1.5-mile circle following the harvest of Proud Mary and Bark Beetle Bailey;
- Harvest of the sale will not dramatically increase fragmentation within the Little Green spotted owl provincial circle;
- Proud Mary is positioned toward the outer edge of the 1.5-mile circle.
- Surveys conducted within the Little Green site have not yielded northern spotted owl detections since 2013, despite annual AC searches and area-wide density surveys.

Compliance with Policy

After completion of harvest operations associated with the Proud Mary timber sale, the remaining suitable habitat within the Little Green owl circles will exceed the standards identified in ODF's northern spotted owl policy. Additionally, assessment of other relevant factors indicates this sale should pose a low risk of negatively impacting this owl site. Some of those factors include minimal increase in fragmentation throughout the circle post-operation and the operation is on the outer edge of the Little Green 1.5-mile circle.

LITERATURE CITED

Glenn, E., and R. G. Anthony. 2000. Home Range and Habitat Use of Northern Spotted Owls on State Forest Lands in the Oregon Coast Range. Unpublished Final Report, Oregon Cooperative Fish and Wildlife Research Unit, Corvallis, Or. 114 pp.

Oregon Department of Forestry. 2010. Northern Spotted Owl Management Decision Paper. September 24, 2010. 4 pp.

Oregon Department of Forestry. 2017. Northern Spotted Owl State Forest Program Operational Policies. November, 2017. 12 pp.

Turnstone Environmental Consultants, Inc. 2022. Spotted Owl Survey Report. Portland, Oregon. For Oregon Department of Forestry, State Lands Division, Salem. 216 pp.

U.S. Fish & Wildlife Service. 1990. Procedures leading to endangered species compliance for the northern spotted owl. U.S. Fish and Wildlife Service, Region 1, July 1990. 15 pp.

Table 1. Acres of suitable habitat within the 0.7- and 1.5-mile circles of the Little Green northern spotted owl site. Suitable habitat determined using 2012 LiDAR, 2020 orthoimagery, and 2016-2022 field assessment.

	Acres within Little Green	
	0.7 mi	1.5 mi
State owned suitable habitat	479	1,343
BLM owned suitable habitat	186	672
Private owned suitable habitat	0	62
Total	665	2,077
Proud Mary Timber Sale suitable habitat acres removed	0	13
Bark Beetle Bailey Timber Sale suitable habitat acres removed	0	80
Suitable habitat remaining	665	1,984
% Suitable habitat post-harvest	67.5%	43.8%