

# Pre-Operations Report

**Operation Name:** South Gale  
**County:** Washington  
**Management Basin:** Rogers

**Table 1. Operation Areas, Types and Acres**

Area	Type of Operation	Gross Acres	Net Acres
1	Modified Clearcut	131	113
<b>Total</b>	<b>Regeneration Harvest</b>	<b>131</b>	<b>113</b>
2	Heavy Partial Cut	32	30
3	Heavy Partial Cut	15	14
<b>Total</b>	<b>Partial Cut Harvest</b>	<b>47</b>	<b>44</b>

## **I. PHYSICAL DESCRIPTION OF OPERATION AREA:**

Primarily the slopes have a west aspect and range from 5 to 65%. Elevations range from 800 to 1200 feet. The major soil types are Grindstone and Rye. The sale extends from the ridge tops to the lower slopes adjacent to the South Fork of Gales Creek.

The landforms are gentle broad ridge divide and moderate to very steep side slopes along the east side of the South Fork Gales Creek. The underlying rocks of the west half of Areas 2 & 3 are igneous origin intrusive diabase. The underlying rocks in the east half of Areas 2 & 3 and all of Area 1 are sedimentary rocks mostly sandstone of the Yamhill Formations.

## **II. CURRENT STAND CONDITION:**

The sale area burned in the 1945 Tillamook Burn.

The two stand types that make up the sale area have been inventoried using the Stand Level Inventory (SLI) procedure. Both of the inventoried stands have been classified as UDS.

The sale area is comprised of medium to well stocked Douglas-fir and scattered mixed conifer with small patches of red alder and big leaf maple. The majority of the understory consists of conifer seedlings and saplings, vine maple, sword fern, salal and dwarf Oregon grape.

SLI data shows that there are approximately 6 snags per acre and 2,000 ft<sup>3</sup> of DWD. Most of the snags and DWD are in classes 1, 2, 3 and 4.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age <sup>5</sup>	DBH	BA	TPA	SDI	Net Acres <sup>2</sup>
1	MC <sup>3</sup>	8286	DF	47-57	19	214	114	51	28
		8287	DF	58-63	16	242	169	61	85
2	PC-H <sup>4</sup>	8287	DF	58-63	16	242	169	61	30
3	PC-H <sup>4</sup>	8287	DF	58-63	16	242	169	61	14

<sup>1</sup> The source of stand inventory information is from SLI grown to 2005.

<sup>2</sup> The acres are based on GIS and exclude existing and planned roads, stream buffers, and green tree retention areas. Clearcut acres do not exceed 120 acres.

<sup>3</sup> MC is Modified Clearcut

<sup>4</sup> PC-H is Heavy Partial cut

<sup>5</sup> Actual measured breast height ages are shown unless labeled "est."

### **III. DESIRED FUTURE CONDITION/VISION:**

According to the Forest Grove District's landscape design for the Gales Creek basin, the desired future condition (DFC) for Area 1 is 100% General (GEN). The DFC for Area 2 is 83% OFS and 17% GEN. The DFC for Area 3 is 50% OFS and 50% GEN.

#### **Area 1**

This will be planted with a mix of conifer species, predominately Douglas-fir, and managed for timber production. Retaining some green trees, creating snags, adding down woody debris, planting a variety of tree species will provide habitat for early seral wildlife species between harvest intervals. It is anticipated that the newly established plantation will be scheduled for precommercial thinning at approximately age 15, and commercial thinning at approximately age 40 before the next modified clearcut harvest at age 60. The stand will move through the REG, CSC, and UDS conditions between harvest intervals.

#### **Area 2 and Area 3**

The heavy partial cut will move the stand more rapidly toward OFS. Both Areas will be underplanted with a mix of shade tolerant conifers. As the understory develops over the next 20-30 years, the stand will enter the LYR condition. While the overstory trees increase in size, more hard snags and down woody debris will be created resulting in the OFS condition. The stand will be kept in the OFS condition for an additional 20-30 years.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Net Acres
1	8286	UDS	REG	GEN	29
	8287	UDS	REG	GEN	84
2	8287	UDS	UDS	GEN	5
				OFS	25
3	8287	UDS	UDS	GEN	7
				OFS	7

<sup>1</sup> The stand is expected to develop into this condition in the five to ten years after this operation is completed, except in REG stands which occur after harvest.

**IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:**

Area 1

This area is a Modified Clearcut (MC).

Area 1 will be managed to develop into a commercially viable stand that should be available for a commercial thin by 2050, followed by a modified clearcut in 2070. Following harvest, the tractor ground will be reviewed to determine if mechanical site preparation is warranted to facilitate the planting of mixed conifer seedlings.

Grand fir and western red cedar will be reserved from harvest to contribute to the Green Tree Retention. Remaining Green Tree Retention requirements will be met by leaving other tree species in stream buffers and scattered clumps.

Two Douglas-fir trees per acre will be topped to create hard snags. The created snags must have a DBH of at least 18 inches, and be at least 60 feet in height.

These methods will be used in combination to meet the green tree requirement in the Forest Management Plan (FMP) and provide snags and DWD to the stand. All existing DWD will be reserved in the sale areas. Recruitment of additional DWD is expected through mortality, windthrow of residual trees, felled snags, and logging slash. Existing snags determined not to be a safety hazard will be retained and any felled snags will be left for down wood. Additional snags will be created over time through natural processes.

Area 2 and Area 3

These Areas are a Heavy Partial Cut.

The harvest operation of these Areas will continue the development of UDS structure in the short term by thinning the stand to an SDI 20. In addition to the residual overstory trees required to meet the SDI 20 target, all trees less than 8 inches, grand fir, western red cedar, and hardwoods shall be retained. This

prescription will provide more light and nutrients to promote increased diameter growth of the residual trees and continued vigor of the understory. Understory development will be maintained promoting multiple stand layers, biological diversity, and future OFS.

Two trees per acre shall be topped to create hard snags and be evenly distributed throughout the Areas. The created snags must be Douglas-fir and have a DBH of at least 18 inches, and be at least 60 feet in height.

This will provide snags and DWD to the stand. All existing DWD will be reserved in the sale areas. Recruitment of additional DWD is expected through mortality, windthrow of residual trees, felled snags, and logging slash. Existing snags determined not to be a safety hazard will be retained and any felled snags will be left for down wood. Additional snags will be created over time through natural processes.

**V. ESTIMATED TIMBER AND REVENUE OUTPUTS:**

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		X
Planned Quarter:		2	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,660	40	4,700
Stumpage Value (\$/MBF)	\$400	\$350	
Estimated Gross Value	\$1,864,000	\$14,000	\$1,878,000
		Project Costs:	\$60,000
		Estimated Net Value:	\$1,818,000

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

The sale area is accessed via Stimson’s South Fork Gales Creek Mainline. ODF has an easement over this well maintained road, so no road use fees will be levied for hauling.

Approximately 1.2 miles of road will be constructed to provide access to cable landing locations. The new construction is limited to ridge tops and is estimated to cost \$60,000. The newly constructed roads will not cross any perennial streams.

All haul roads will have high quality crushed rock or pit run surfacing. Roads will provide access to all timber within the sale area and allow for logging methods and hauling which will minimize impacts to soils, streams, and riparian areas.

The two harvesting methods that will be utilized for this sale are highlead cable and ground based yarding.

**Table 5. Transportation Management Summary (Miles)**

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	1.2	0
Improvement	0	0	0	0
Maintenance	2.0 <sup>1</sup>	1.0 <sup>1</sup>	1.2	0
Vacation	0	0	0	0

<sup>1</sup> Includes third party roads.

**VII. AQUATIC RESOURCES AND WATER QUALITY:**

The South Fork of Gales Creek, a medium type F stream, flows adjacent to the sale. There are several unnamed small perennial and seasonal Type N streams within the sale area. A fish presence survey has been requested for perennial streams east of South Fork Gales Creek Road.

During sale layout, all streams will be field verified as to size, type, locations, and/or source.

Riparian area stand types along these streams are a mix of conifer and hardwood.

Stream buffers within harvest unit boundaries will be managed according to FMP Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies.

Seasonal hauling restrictions will be applied in order to protect the water quality on all streams along the haul route. Restrictions may include limiting the number of loads hauled per day, not hauling during periods of heavy moisture, or having an alternate haul route.

In order to protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and September 15. Operations outside of this period will be reviewed with ODFW.

**VIII. WILDLIFE AND T&E SPECIES CONSIDERATIONS:**

The sale area has been reviewed with the ODF Northwest Oregon Area Biologist (Area Biologist).

Surveys for northern spotted owls were conducted in 2005 due to the presence of potentially suitable spotted owl habitat within and adjacent to the timber sale area. South Gale was surveyed for spotted owls three times in 2005 with no responses, and the second year of survey will be completed in 2006. All surveys were/will be conducted in accordance with USFWS protocol.

Surveys for marbled murrelets are not required, due to the absence of potentially suitable habitat within the sale area. The ODF wildlife biologist for the NW Oregon Area made the determination that the sale area is non-suitable habitat for marbled murrelets.

This operation involves an activity that is listed in the National Marine Fisheries Service adopted rules under Section 4(d) of the Endangered Species Act. The sale area is in proximity to streams in which listed salmon and/or steelhead are present. For a discussion of protection measures for listed fish, see Sections VI and VII.

The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known listed plant locations, as well as against local records in the Land Management Classification System (LMCS). No listed plant records were identified within or adjacent to the sale areas.

#### **IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:**

There is a band of very steep slopes in the west half of Areas 2 & 3 directly above the stream channel. The initial hazard and risk assessment from the geotechnical specialist is high. The geotechnical specialist will be consulted during field work to determine if a field visit is needed.

#### **X. RECREATION RESOURCES:**

Restricted access through Stimson Lumber Company gate prevents recreational use in this area.

#### **XI. CULTURAL RESOURCES:**

The sale area and proposed road construction right-of-way were checked against the Tillamook State Forest Cultural Resource Inventory Database (GIS format). No cultural resource records were identified within or adjacent\* to the operation areas. If any significant cultural resources are located during sale preparation, the Public Use Coordinator (ODF Salem Staff) will be consulted regarding potential protection measures.

*\*Adjacent refers to approximately one tree length from an operation area. For the purpose of this screen, a 200 foot buffer around the sale boundary and proposed road construction right-of-way was assessed for cultural resource locations.*

**XII. SCENIC RESOURCES:**

The sale has a visual classification of Level 1, high sensitivity because of its proximity to State Highway 6. No scenic impact is expected due to the buffer of trees that will remain between the sale boundary and the highway.

**XIII. OTHER RESOURCE CONSIDERATIONS:**

The property lines have been true blazed and posted.

All known survey corners and witness trees shall be protected from damage during any operations.

**XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The sale area contains Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of perennial streams within the sale areas. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. The sale area contains Focused Stewardship, Visual Subclass. See Section XII, Scenic Resources, for a discussion of scenic considerations. Areas 1 and 2 contain Special Stewardship, Operationally Limited Subclass. The Geotechnical Specialist will conduct an onsite evaluation of the sale areas for slope stability. See Section IX, Slope Stability and Geotechnical Issues for further discussion.