

# Pre-Operations Report

**Operation Name:** Mulak Thin  
**County:** Clatsop  
**Management Basin:** Northrup

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

Area	Type of Operation	Gross Acres	Net Acres
1	PC	18	15
1A	GS	3.5	3.5
2	PC	41	36
Total	Partial Cut	62	51
Total	Group Selection	3	3.5

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

The sale is located on the gentle to moderate upper slopes of the Nehalem River. Areas 1 and 2 are underlain by sedimentary rocks of the Tillamook series, which are deep well-drained soils.

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

Area 1 - The current average age of this stand is approximately 43 years old and is composed with a major component of alder and patches of large Douglas-fir, hemlock, cedar, and big leaf maple. The average DBH for this stand is 13 inches. The stand is currently categorized as Closed Single Canopy (CSC).

Area 1A - The current stand is overstocked with Douglas-fir at an average DBH of approximately 13 inches. These trees have approximately 5-10% live crowns. This condition has led to a near stagnant state which will eventually culminate up in a collapse of stand integrity.

Area 2 - The current average age of this stand is approximately 42 years old and is composed primarily of Douglas-fir, a small component of western hemlock, and some patches of red alder in riparian areas. The average DBH for this stand is 14 inches. The stand is currently categorized as Closed Single Canopy (CSC).

Understory development for all areas consist of sword fern, vinemaple, huckleberry, salmonberry, snowberry, brachen fern, bleeding heart, false Solomon's seal, wild rose, Oregon grape, oxalis, trillium, pathfinder, and vanilla-leaf.

**Table 2. Stand Inventory Information**

Area	Prescription	Stand ID <sup>1</sup>	Species	Age	DBH	BA	TPA	SDI	Acres <sup>2</sup>
1	PC	23844	DF	44	13	243	263	67	15
		Target <sup>3</sup>			16	100-120	80	25-30	15
1A	GS	23844	DF	44	10 <sup>4</sup>	243	263	67	3.5
		Target <sup>3</sup>			0	0	0	0	3.5
		Stand ID							
2	PC	23825	DF	32	14	151	148	41	36
		Target <sup>3</sup>			16	100-120	100	30-35	36

<sup>1</sup> The source of stand inventory information is SLI. Age shown as of 2007.

<sup>2</sup> The acres are based on GIS and exclude roads, streams buffers, reserve areas, etc.

<sup>3</sup> The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

<sup>4</sup> Determined through field evaluation.

### III. DESIRED FUTURE CONDITION/VISION:

Area 1 and 1A have been targeted for a desired future condition of Older Forest Structure (OFS), while Area 2 has been targeted for a desired future condition of Layered (LYR).

The goal of partial cutting within these stands is to quickly promote these stands to the designated desired future condition. In most cases a light thinning with the creation of some stand structure components will accomplish this goal. By removing the intermediate and some co-dominant trees within these stands individual tree growth will be maintained and more understory can develop as a result of increased light to the forest floor. This will allow for development of a more complex stand structure. Snag creation and felling for down wood will take place in areas that show deficiencies. In areas where down wood and snags are close to stand target inputs, harvest activities with some minor additional input is anticipated to accomplish stand structure goals. These inputs will promote stand conditions towards OFS and LYR. Desired future conditions are anticipated to be reached within 40 to 50 years following harvest.

Approximately 20 to 25 years following harvest, the stand will be re-entered for a light maintenance thinning to facilitate continuing understory development, stand complexity, and individual tree growth.

**Table 3. Stand Structure Information**

Area	Stand ID	Current	Post Harvest <sup>1</sup>	Desired Future	Acres
1	23844	CSC	UDS	OFS	15
1A	23844	CSC	UDS	OFS	3.5
2	23825	CSC	UDS	LYR	36

<sup>1</sup> The stand is expected to develop into this condition in the forty to fifty years after this operation is completed.

#### **IV. PROPOSED MANAGEMENT PRESCRIPTION:**

Areas 1 and 1A - have a desired future condition of Older Forest Structure (OFS). To reach the OFS condition Area 1 will target the removal of all alders except for approximately 2 alders per acre selected as vigorous, healthy, and with straight form to maintain the hardwood component. Conifers are generally clumped throughout the stand and should be lightly thinned to allow adequate light for underplanted seedlings. Conifer clumps will be marked as "to be cut". All minor species and trees under eight inches DBH will be reserved where operationally feasible. Area 1A is selected as a Group Selection to remove stagnant trees and create a gap dynamic within the OFS landscape.

Site preparation will be provided by ground based harvesting in association with hand based chemical application to improve survival rates of planted seedlings. Area 1A, Group Selection, shall be planted at 300 trees per acre with the following mixture: 40% Douglas-fir, 55% Western hemlock, and 5% Western red cedar. Area 1 will be underplanted one full season after harvest at 150 trees per acre with the following mixture: 50% Western hemlock and 50% Western red cedar. Animal damage to seedlings is anticipated to be heavy. Paper bud caps will be installed on Douglas-fir and tubes on Western red cedar at the time of initial planting. Some slash and debris manipulation maybe required.

*Snags:* Natural snag development is anticipated to occur reaching the objective of six per acre with two being over 24"dbh by the time the stand reaches the DFC.

Area 2 - has a desired future condition of Layered (LYR). This unit will be automark thinned with a target SDI of 30 to 35 that will maintain current growth rates and allow more understory development. All minor species and trees under eight inches DBH will be reserved where operationally feasible. Alternative prescriptions will be implemented at the patch scale. These prescriptions could include patch cuts, heavier thinning, or no-harvest areas.

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

**Table 4. Timber and Revenue**

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
%	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		Alternate	

	Conifer	Hardwood	Total
Net Volume (MBF)	450	50	500
Stumpage Value (\$/MBF)	\$250	\$400	
Estimated Gross Value	\$112,500	\$20,000	\$132,500
		Project Costs:	\$6,000
		Estimated Net Value:	\$126,500

**VI. HARVESTING AND ACCESS CONSIDERATIONS:**

For sale access, approximately 0.2 miles of new dirt road construction within the sale area will be needed. New roads are minor dirt spurs that do not cross perennial streams. They are needed to reduce skidding distance and to facilitate cable thinning. Since this area has an established road network, utilizing the existing infrastructure and constructing a few minor spurs was determined the most sound access/harvest system.

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

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0.0	0.0	0.0	0.2
Improve	0.0	0.0	0.0	0.0
Maintain	0.0	0.0	0.0	0.0
Close/Block	0.0	0.0	0.0	0.0
Vacate	0.0	0.0	0.0	0.2

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

*Type F and Domestic Use Streams:* There are no known Type F streams within the sale boundaries. The unknown creeks within the sale areas should be field verified. The streams will be buffered to the Northwest Forest Management Plan standards. No domestic use streams are associated with the harvest activities.

There are no known domestic water systems associated with this sale. This sale does not contain any streams with federally listed fish species.

*Type N Streams:* There are perennial Type N streams in areas 1 and 2.

*Aquatic Resource Protection:* For all areas, full log suspension is required when cable yarding over streams. No ground-based logging equipment operation is allowed within the stream bank zone. No stream crossings are anticipated during road construction. To protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods range from use of hay bales in road ditches, to “ditch-outs” away from streams, to complete shutdown of logging and hauling. There are no known high landslide hazard locations or debris-track Type N streams within the sale area.

All streams will be examined to determine stream type and classification during sale layout, and then the specific riparian management area strategies required in the FMP will be implemented. The FMP riparian management area strategies that will be implemented are found in the FMP, Appendix J, “Management Standards for Aquatic and Riparian Areas”, pages J-1 through J-16.

ODFW Biologists have no stream enhancement projects scheduled for this area at this time.

#### **VI. WILDLIFE AND T&E SPECIES CONSIDERATIONS:**

All sale areas were surveyed to protocol for northern spotted owls and marbled murrelets in 2007 with no responses and will be surveyed in 2008.

The sale area was checked against district knowledge for any listed plant locations. The sale area was also checked against the Oregon Natural Heritage Program (OHNP) database of known listed plant locations. No listed plant records were identified within the sale area.

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

This assessment is based off of USGS 1:24,000 topographic maps and available geologic maps. There are no high landslide hazard locations in the entire sale area. The entire sale area drains to the Nehalem River. The risk of landslides delivering directly to the Nehalem River from the sale area is low. The geotechnical specialist will be consulted if evidence of recent landslide activity is identified during sale layout.

#### **VIII. RECREATION RESOURCES:**

This area receives little use. The Clatsop State Forest Recreation Plan does not list any specific activities for this portion of the basin.

#### **IX. CULTURAL RESOURCES:**

No known cultural resources are within or adjacent to the operation.

**X. SCENIC RESOURCES:**

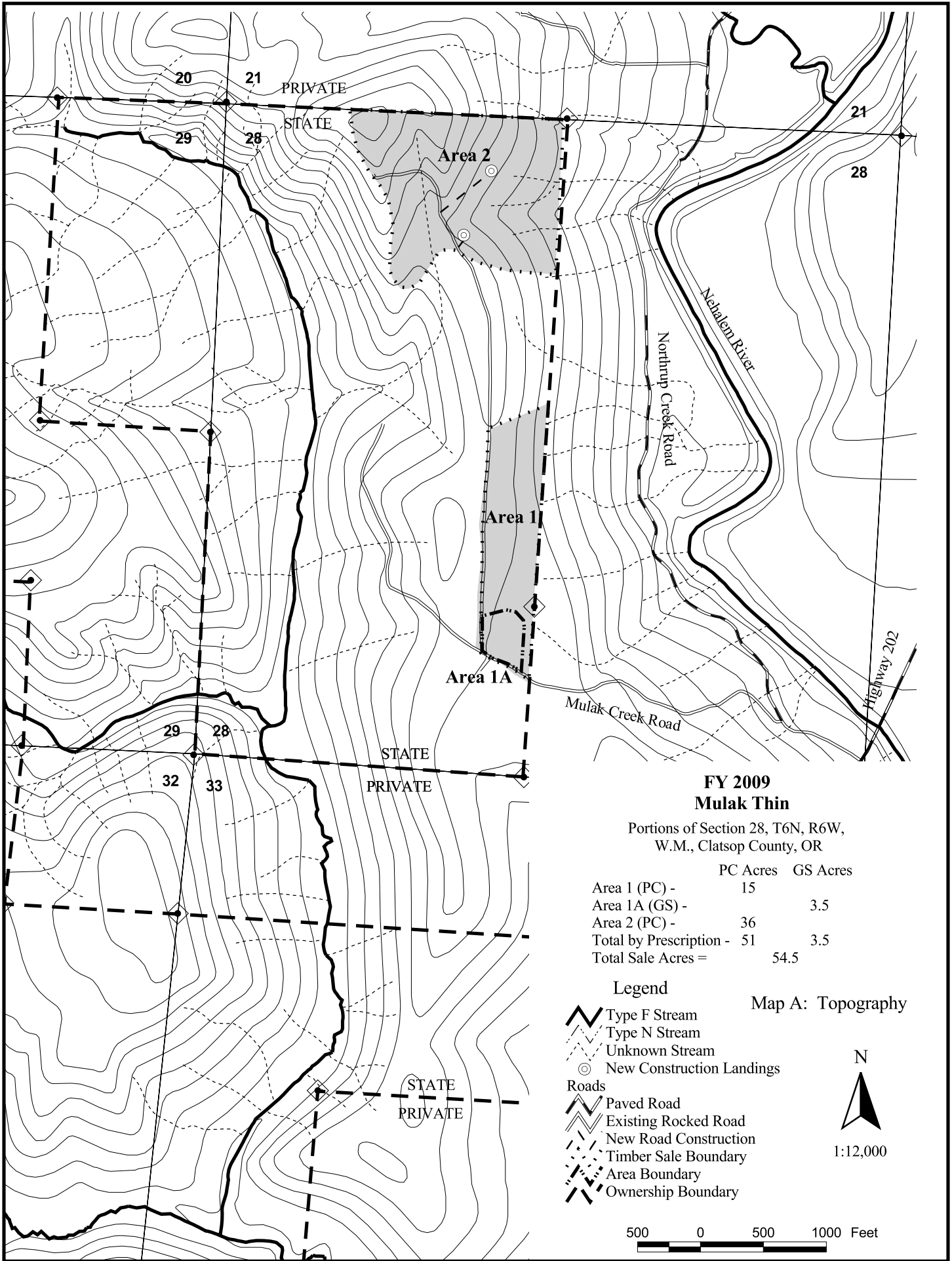
The sale areas are in a landscape of low visual sensitivity.

**XI. OTHER RESOURCE CONSIDERATIONS:**

Both areas within the sale will require some property surveys or survey monument protection measures.

**XII. LAND MANAGEMENT CLASSIFICATION SUMMARY:**

The Forest Land Management Classification for the operational area is classified as Special with subclasses of Wildlife and Aquatic and Riparian Habitat. This is due to the close proximity of the Nehalem River and the Strum Creek Owl Circle.



**FY 2009  
Mulak Thin**

Portions of Section 28, T6N, R6W,  
W.M., Clatsop County, OR

	PC Acres	GS Acres
Area 1 (PC) -	15	
Area 1A (GS) -		3.5
Area 2 (PC) -	36	
Total by Prescription -	51	3.5
Total Sale Acres =		54.5

**Legend**

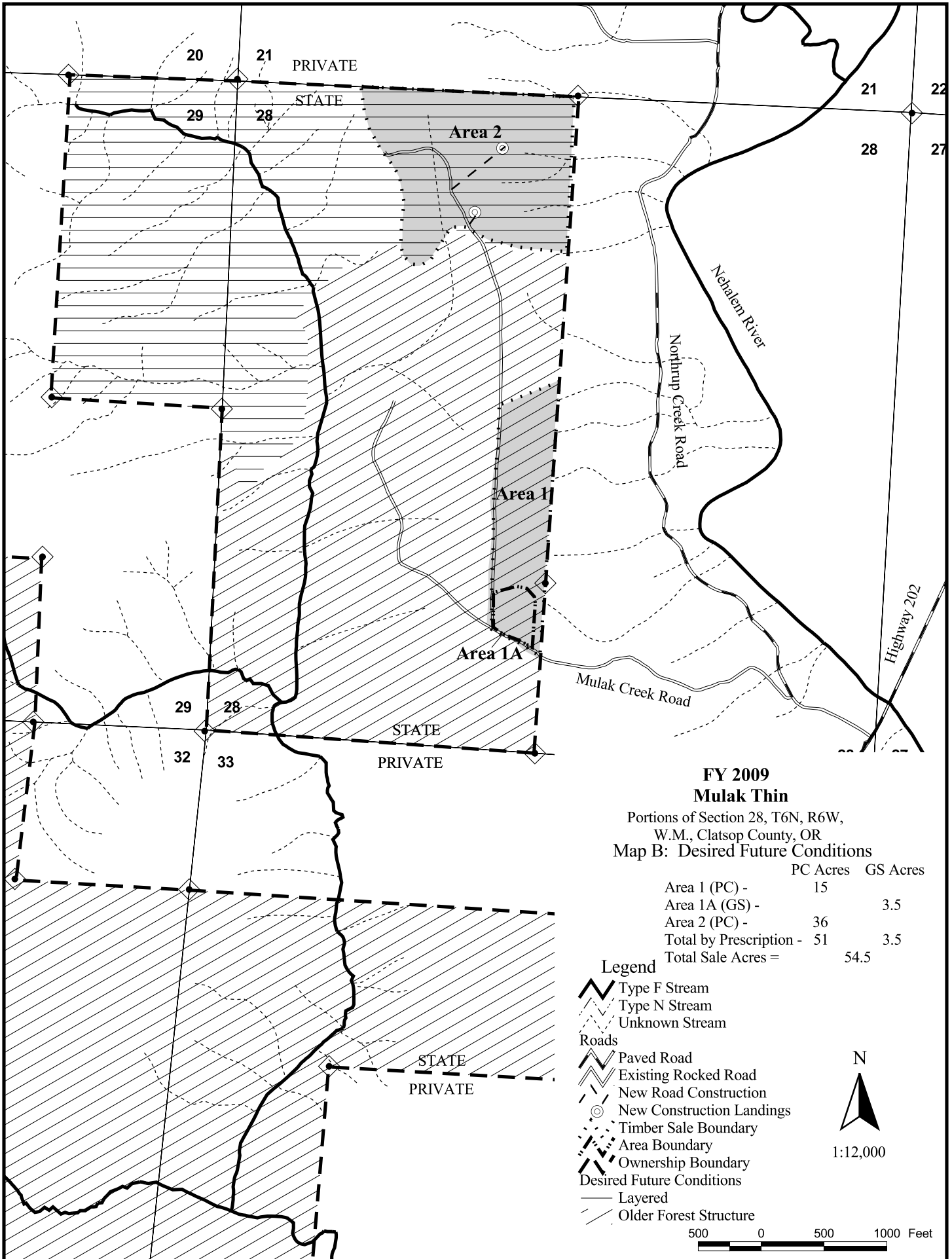
- Type F Stream
- Type N Stream
- Unknown Stream
- New Construction Landings
- Roads**
- Paved Road
- Existing Rocked Road
- New Road Construction
- Timber Sale Boundary
- Area Boundary
- Ownership Boundary

Map A: Topography



1:12,000





**FY 2009  
Mulak Thin**  
Portions of Section 28, T6N, R6W,  
W.M., Clatsop County, OR  
Map B: Desired Future Conditions

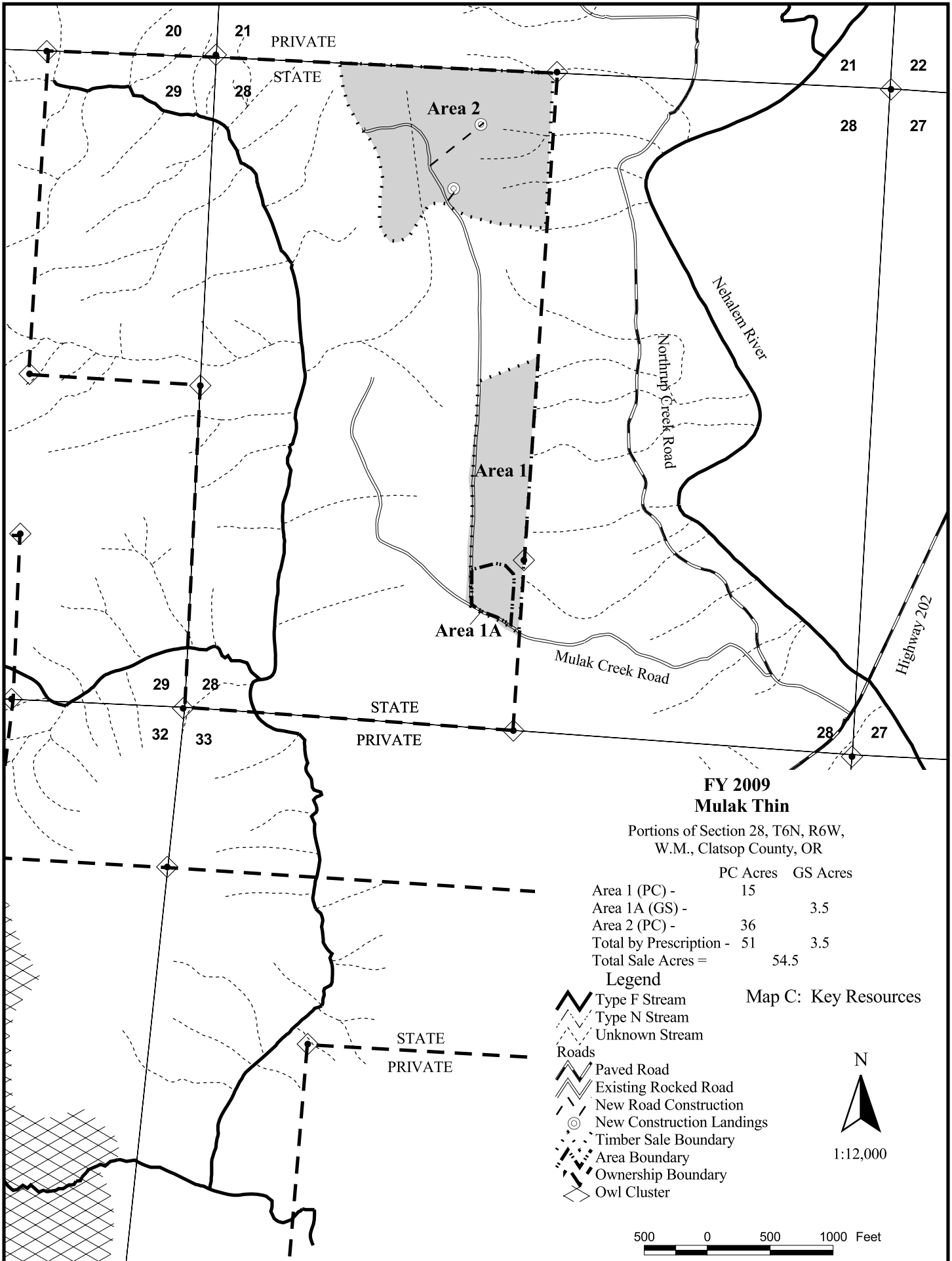
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- Legend**
- Type F Stream
  - Type N Stream
  - Unknown Stream
  - Roads**
  - Paved Road
  - Existing Rocked Road
  - New Road Construction
  - New Construction Landings
  - Timber Sale Boundary
  - Area Boundary
  - Ownership Boundary
  - Desired Future Conditions**
  - Layered
  - Older Forest Structure



1:12,000





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Mulak Thin**  
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- Legend**
- Type F Stream
  - Type N Stream
  - Unknown Stream
  - Roads**
  - Paved Road
  - Existing Rocked Road
  - New Road Construction
  - New Construction Landings
  - Timber Sale Boundary
  - Area Boundary
  - Ownership Boundary
  - Owl Cluster

Map C: Key Resources



500 0 500 1000 Feet