

North Morris Pre-Operations Report

Operation Name: North Morris

Legal: Portions of Sections 27, 28, and 33, T2N, R7W, W.M., Tillamook County

Management Basin: Wilson

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres ¹
1	Clearcut	77	74
2	Clearcut	113	110
Total		190	184

1. The net acres are based on orthophotos and GIS and exclude roads and stream buffers.

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes in the sale areas range from 15% to 80%. Elevations range from 800 feet to 1400 feet. Area 1 has predominantly a northern aspect. Area 2 is primarily an east facing slope. The major soil types are the Killam and Rye series. All soil types are deep and well drained. Tree wind-firmness: Killam firm, Rye moderate. Rock content: Killam 10 to 40%, good quality; Rye: 40 to 80%, high quality. Site Index for age 50: Killam - Douglas-fir: 130 (II+), hemlock 110 (III); Rye -Douglas-fir and hemlock 100 (III-).

II. CURRENT STAND CONDITION:

Table 2. Stand Inventory Information³

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Net Acres ²
1	MC	501	DF/RA	45	13	250	280	69	74
2	MC	502	DF/RA	45	14	200	190	54	110

1. The source of stand inventory information is from cruise plots taken in 2008.

2. The net acres are based on GIS and GPS and exclude roads and stream buffers. Modified clear cut acres are not contiguous and do not exceed 120 acres.

3. These numbers are based on plot data taken to this point and final numbers may differ significantly. The directive for minor and major modifications will be followed for further review.

Both areas burned in the 1933 and 1945 Tillamook Burn fires. Most of Areas 1 and 2 were planted in 1959-60. The NW corner of Area 1 was seeded in 1959-60. The south end of Area 2 was replanted in 1968-69. There are low to moderate symptoms of Swiss needle cast in this area. No root rot or other disease or insect issues were observed during field reconnaissance.

These areas have not had any management since they were planted, which has resulted in mostly over-stocked stands of Douglas-fir. About half of these areas are a mixture of alder and Douglas-fir. The conifer portions of these areas are overstocked and most of the trees have less than 30% live crowns. The alder was sprayed in the 1970's which caused deformed boles with multiple tops on these trees. The trees in the two sale areas have reduced growth that is likely due to off-site seed planting stock, and/or overstocking in the conifer, and maturity for the alder.

The stands in these areas are mostly simple, single structured stands in the stem exclusion and understory stages.

See Table 2 for specific stand data.

III. DESIRED STAND CONDITION and VISION:

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Net Acres
1	501	UDS	REG	GEN	73
				LYR	1
2	502	UDS	REG	GEN	110

1. 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.

See Section IV, Proposed Management Prescription, for more information on Green Tree, Down Wood, and Snag Strategies during operation. Also refer to Landscape Design in the Summary document for more information on strategies to move the district toward Desired Future Condition (DFC) goals.

Upper Wilson River Landscape View:

This basin was burned in all three Tillamook Burn fires. Much of the native conifer seed stock was destroyed with the fires. Most of this basin naturally regenerated with red alder and minor amounts of hemlock, spruce, and noble fir. It was replanted with off-site Douglas-fir seed after the burns. Most of the stands in this basin are currently dominated by Douglas-fir, which is the naturally occurring species in this basin. There are also stands of alder and stands that have Douglas-fir and alder mixed together. Both commercial thinning and regeneration harvest have occurred within a mile of the sale areas. Most of the stands in this basin are understory or closed single canopy structures and some of them were precommercially thinned in the past. Red alder usually dominates the riparian areas and unstable steep draws.

Areas 1 and 2: The DFC for the sale areas is General (GEN).

Short Term Vision: The regeneration harvests planned for these areas will remove the current cohort of slow-growing Douglas-fir and alder. These stands will be reforested with a mixture of conifer species from the proper seed zone: western hemlock, SNC tolerant Douglas-fir, western red cedar and/or noble fir, creating a healthier stand. These stands are expected to grow rapidly by managing brush competition and density after they are established. A mix of Swiss needle cast tolerant Douglas-fir, hemlock and cedar will be planted and alder is expected to naturally regenerate. Residual trees will add decadence and legacy structure through time and provide future down wood, snags, and legacy trees.

Long Term Vision: The vision for these stands is to have thriving, vigorous, and fast growing stands of predominantly Douglas-fir. Following density management, the stand will continue to be managed for productivity to maximize revenue at the time of final harvest. The residual green trees will add complexity to the stand and serve as a source for large green trees, and future snags and down wood recruitment.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

The prescriptions described below are based on the current stand condition such as overall tree and stand growth, species mix, stand density, and stand health.

Regeneration Harvest

Areas 1 and 2

Prescription: Merchantable Douglas-fir and alder will be harvested. All other conifer and hardwood species will be reserved.

Green Trees: Approximately 5 trees per acre are planned to be reserved within the sale areas for green tree retention. Approximately 2 trees per acre are planned to be Douglas-fir at least 15 inches at diameter breast height. The additional 3 trees per acre will be other conifer and hardwood trees other than alder which will be reserved within the timber sale areas. Some of the green trees will be left in stream buffers and high landslide hazard locations within and adjacent to the sale areas.

Snags: In Area 2, the timber cruise indicated that there are 8 snags per acre in decay class 2. These snags average 10.7 inches DBH. 1 to 2 snags per acre greater than 15 inches DBH will be created with this timber sale in both sale areas. Existing snags in all decay classes will be left as long as they do not pose a safety hazard.

Down Wood: The 2005 SLI down wood estimate for the two sale areas in decay class 1 and 2 is 48 cubic feet per acre. The total down wood estimate for these areas is approximately 3,715 cubic feet per acre. The existing down wood will be left in the sale areas and additional down wood will be created by leaving defective and unmerchantable portions of logs during harvest operations in order to meet the goal of 600 to 900 cubic feet per acre. Down wood recruitment is also expected through mortality and windthrow of residual trees, felled snags and tops left during harvest. Non-merchantable hardwoods and conifers will be retained in the sale areas with the expectation that most of them will eventually become down wood.

Pathway: The area will be reforested with primarily SNC tolerant Douglas-fir. Other conifer, such as, hemlock and western red cedar will also be added to the sale areas for species diversity. Red alder is expected to seed in naturally. Brush management will likely be needed during the early reforestation stages and pre-commercial thinning at age 12 – 17 years and a commercial thinning at age 35 – 40 years will be needed to maintain tree growth, vigor and health prior to the next regeneration harvest of these areas.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		1	

	Conifer	Hardwood	Total
Net Volume (MBF)	4,229	636	4,865
Stumpage Value (\$/MBF)	\$125	\$200	
Estimated Gross Value	\$528,625	\$127,200	\$655,825
		Project Costs:	\$107,870
		Estimated Net Value:	\$547,955

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via the Wilson River Highway and North Fork Wilson River Road. An abandoned spur road approximately 2.3 miles from Highway 6 and west of North Fork Wilson Road will be improved for sale access. North Fork Wilson River Road is an all weather, crushed rock road. See maps for specific road locations and conditions.

The operation is estimated to be approximately 90% cable and 10% ground based yarding. Approximately 1.3 miles of road will be improved and 0.8 miles will be constructed on mostly closed or abandoned roads to provide access to the sale areas. Approximately 0.8 miles of the spur roads used for this sale will be closed upon completion of harvesting and aerial spraying operations. See summary document for more information on road closure. No other project work is currently planned with this sale.

Table 5. Transportation Planning Summary (Miles)⁴

Activity	Mainline	Collector	Rocked Spur ¹	Dirt Spur ¹
Construct			0.49	0.39
Improve			1.27	
Maintain ²		2.3		
Close/Block ³			0.5	0.39
Vacate ³				

1. Additional roads may be built by the operator at the time of harvest and will be approved by the State through the Operations Plan. These will be short dead end spurs and closed or blocked after harvest
2. All roads accessing the sale area will be maintained during the life of the timber sale contract. Maintenance miles in the table are those roads not being constructed or improved.
3. Roads not closed/blocked or vacated at the end of the sale will be reviewed for closure after reforestation is established.
4. The numbers in this table reflect planned Project Work associated with the sale.

VII. AQUATIC RESOURCES AND WATER QUALITY:

The North Fork and West Fork Wilson Rivers, large Type F streams, are adjacent to the sale boundary. As determined by ODFW, all of the streams in the sale are Type N streams. The unnamed small Type N streams in the sale areas and the unnamed Type F streams adjacent to the sale areas are tributaries of the rivers specified above. The sale areas are not in a designated Salmon Anchor Habitat.

Stream buffers within or adjacent to the harvest unit boundaries will be managed according to *Forest Management Plan* Riparian Strategies. The riparian areas will be reviewed during sale layout for current stand conditions and/or operational constraints for implementing FMP strategies. A sub-set of those standards are highlighted below for this sale.

A 25' no-harvest buffer will be established along the small type N streams. Additional trees including some wildlife trees will be retained resulting in a X-Y foot buffer.

Small Type N streams can influence stream temperature of downstream fish-bearing streams. Sufficient trees will be retained within 500' of the confluence with type F streams to achieve 80% shade over streams.

Riparian management areas result in leave trees adjacent to the stream which protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat.

VIII. T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist. Surveys for marbled murrelets are not required due to the absence of potentially suitable habitat. Spotted owl surveys are not required as the sale is within the Tillamook burn (see November 2002 ODF Policy Guidance: Northern Spotted Owl Surveying on State Forest Lands.

Streams in this sale are in the Wilson basin. As of March 2008, coastal coho salmon are listed as threatened for the Oregon Coast. The riparian and aquatic strategies combined with road and harvest practices described in this Annual Operations Plan and our Northwest Oregon State Forests Management Plan (FMP) are designed to minimize impacts and or restore aquatic habitats that influence aquatic species.

T & E Plant species: The sale areas were checked against the Oregon Natural Heritage Program (ONHP) database of known threatened or endangered listed plant locations as well as local records in the Land Management Classification System (LMCS). No listed plants were identified within or adjacent to the sale areas.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

This assessment is based on a LiDAR-generated 1 m digital elevation model and available geologic maps. There are high landslide hazard locations in the sale area. The sale area drains to the North Fork of the Wilson River and some of its unnamed tributaries. The risk of landslides delivering to these streams from the sale area is moderate to high. The northern portion of Area I and the entirety of Area II appear to be located on large, deep-seated landslide landforms. The geotechnical specialist has already reviewed portions of the sale in the field. Some of the highest risk slopes have been posted out of the sale area. The geotechnical specialist will be further consulted if evidence of recent landslide activity is identified during sale layout.

X. RECREATION RESOURCES:

Areas 1 and 2 are designated as Motorized in the *Tillamook State Forest Comprehensive Recreation Plan* (1993). This sale has been reviewed by the Recreation Planner. There are several designated OHV trails within the sale areas. These trails include Cobmaster, Walt & Genes, Beaverslide, Fern Gully, and West Fork Bypass. There are also two trials areas in the sale area and one outside the sale area adjacent to the access road. Short term closure of these trails and trial areas will occur to facilitate logging and public safety. Portions of the trails will be improved for logging access. A plan will be developed in conjunction with the District Recreation Coordinator to address these situations. The roads off of the main access road into the sale area are planned to be blocked so that only motorcycles will be able to use them upon completion of sale activities. The remaining portions of road will be closed after reforestation.

Other recreational use in the sale vicinity include hunting, camping and site seeing.

XI. CULTURAL RESOURCES:

The *Tillamook State Cultural Assessment* lists one cultural site on the southwest side of the proposed sale boundary. The district will consult the Public Use Coordinator for appropriate protection and tracking if the site or any others are noted during sale preparation or administration. The cultural resource classification for this site is Class III, no protection required.

XII. SCENIC RESOURCES:

The sale area has a visual classification of Level 3, low sensitivity. No scenic impact is expected.

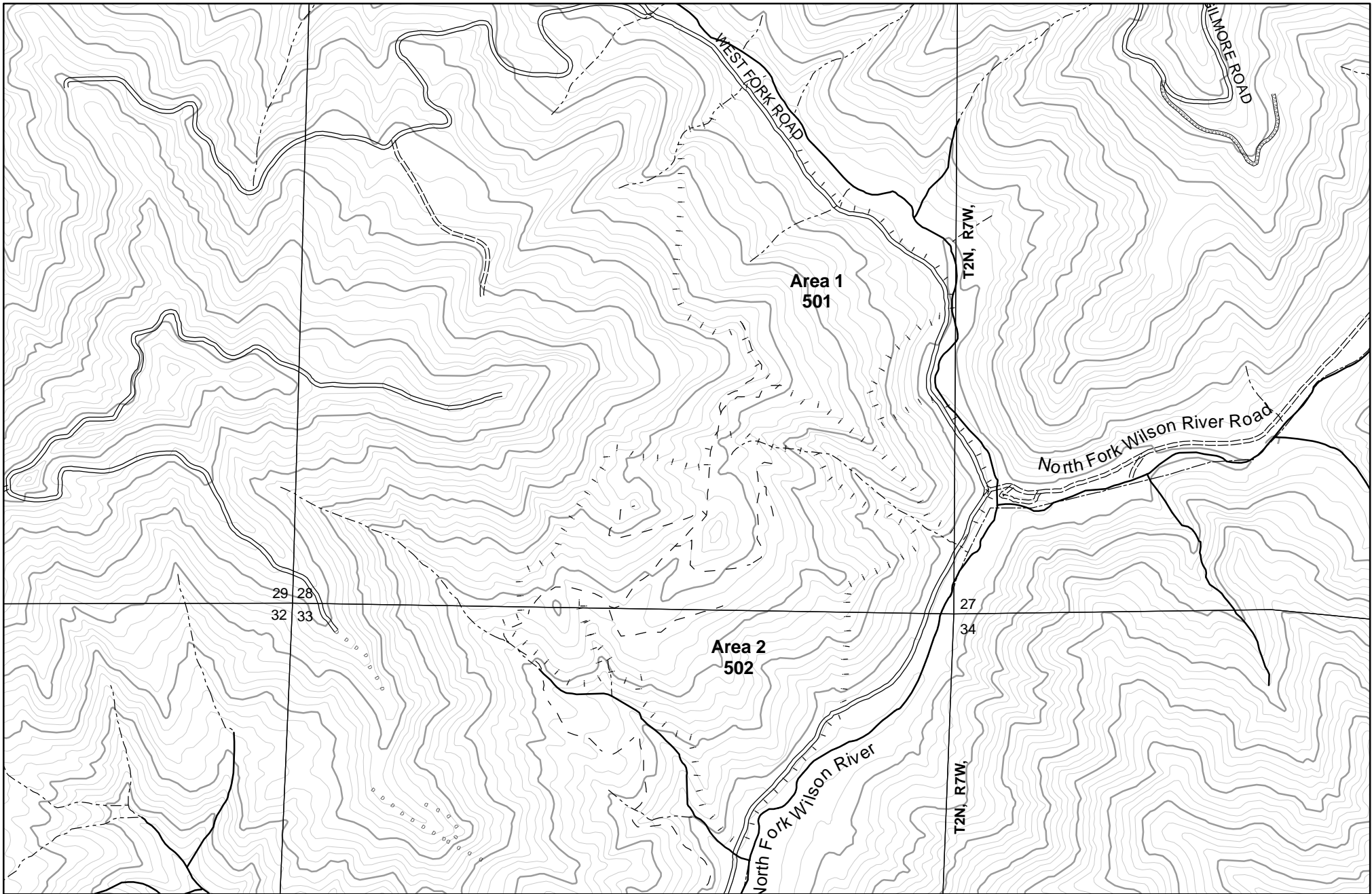
XIII. OTHER RESOURCE CONSIDERATIONS:

None known.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

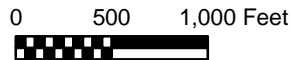
The sale area contains Focused and Special, Aquatic and Riparian Habitat (See section VII. Aquatic Resources and Water Quality, for the management guidelines to be utilized). This sale also includes Focused, Recreation, (See section X. Recreation Resources).

Boundary lines depicted on Attachment C are approximate; exact locations and site specific management activities will be determined during the sale preparation process.



Contour Interval 40'

- Area boundary
- ! ! Sale boundary
- Ownership boundary
- Perennial Type-F stream*
- - - Perennial Type-N stream*
- == Unsurfaced road
- == Surfaced road
- State/Federal highway
- Abandoned road
- Blocked road
- - Road construction
- County road
- Transmission line



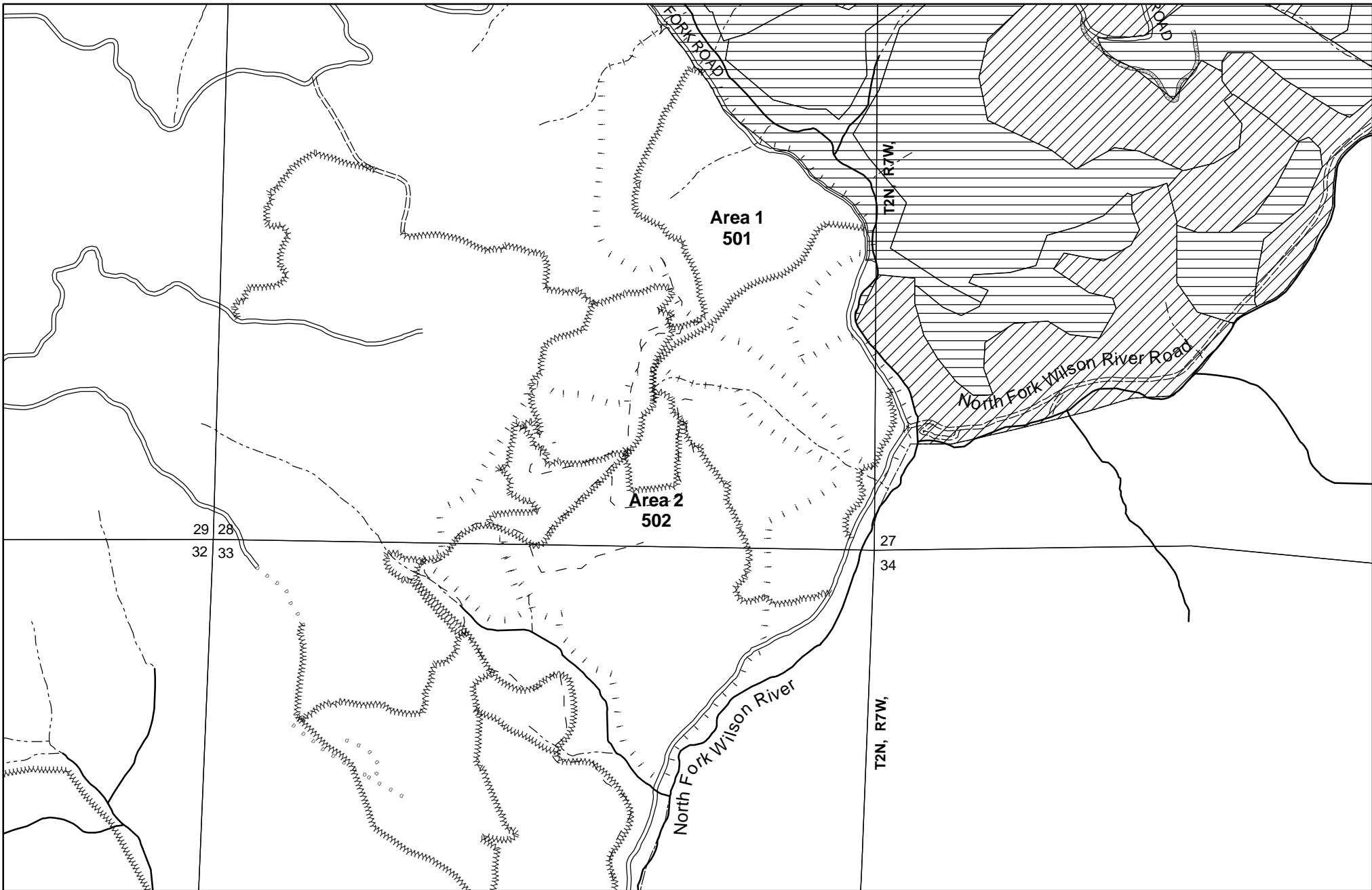
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North Morris
-- Topography --
2010 SALE PLAN
TILLAMOOK DISTRICT
 Portions of Sections 27, 28, and 33
 T2N, R7W, W.M.,
 Tillamook County, Oregon

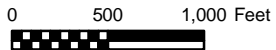
*Streams of unknown fish presence are not shown but will be surveyed prior to the sale

Area	Type of Operation
1	Modified Clearcut
2	Modified Clearcut

Tillamook District GIS
 10/14/2008
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- | | | |
|--------------------------|------------------------------|---------------------------|
| Desired future condition | --- Area boundary | ~~~~~ Abandoned road |
| Layered | ! ! ! Sale boundary | □ □ □ Blocked road |
| Older forest | --- Ownership boundary | - - - Road construction |
| | — Perennial Type-F stream* | — County road |
| | --- Perennial Type-N stream* | - - - Transmission line |
| | --- Unsurfaced road | ~~~~~ OHV trail |
| | — Surfaced road | Non-motorized trail |
| | — State/Federal highway | |



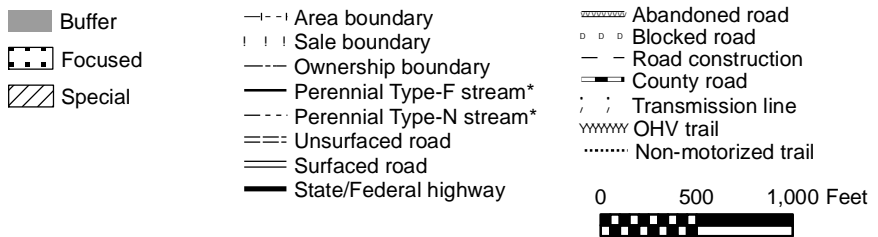
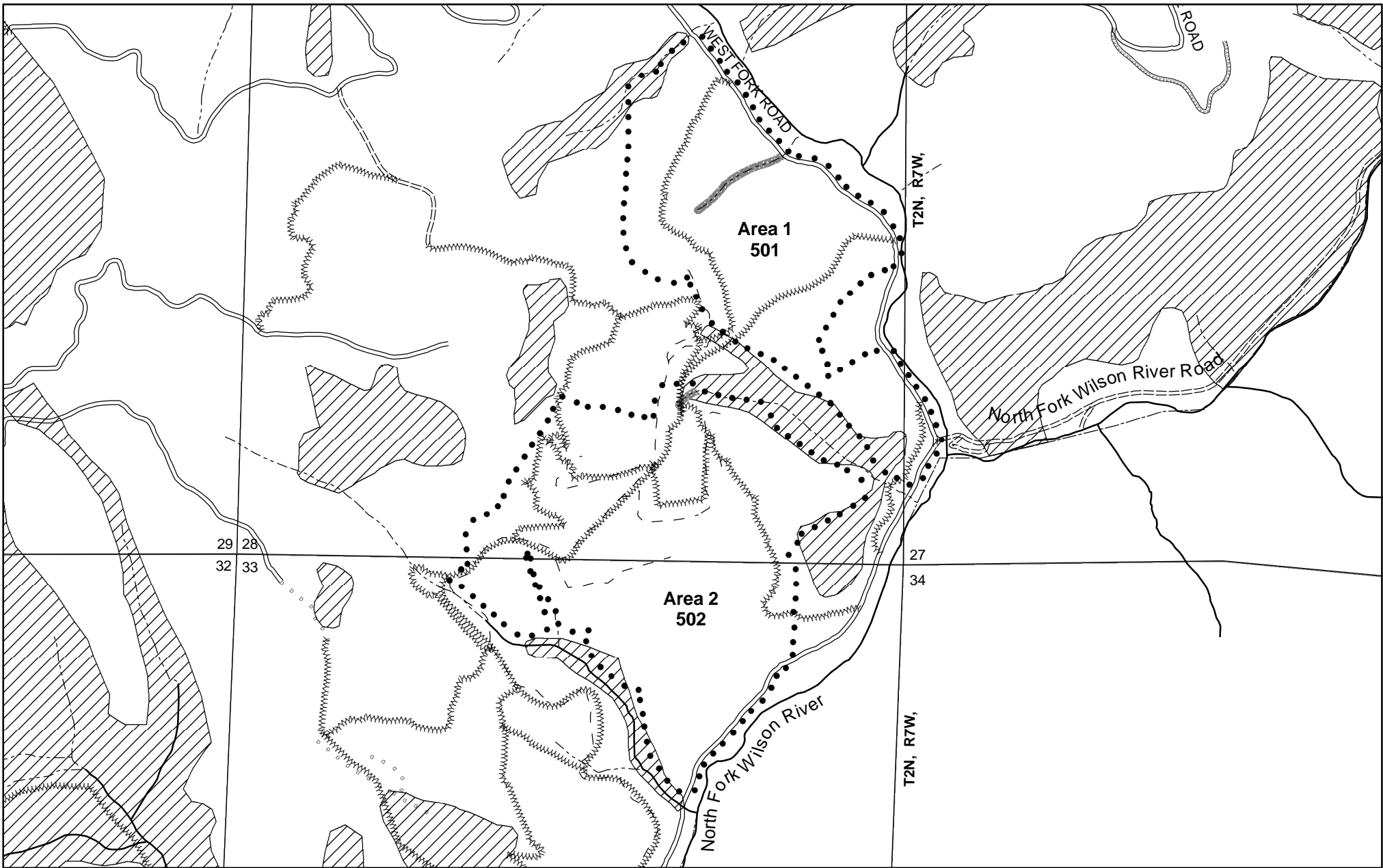
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North Morris
-- Current and Future Condition --
2010 SALE PLAN
TILLAMOOK DISTRICT
 Portions of Sections 27, 28, and 33
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 Tillamook County, Oregon

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Area	Type of Operation
1	Modified Clearcut
2	Modified Clearcut

Tillamook District GIS
 6/24/2009
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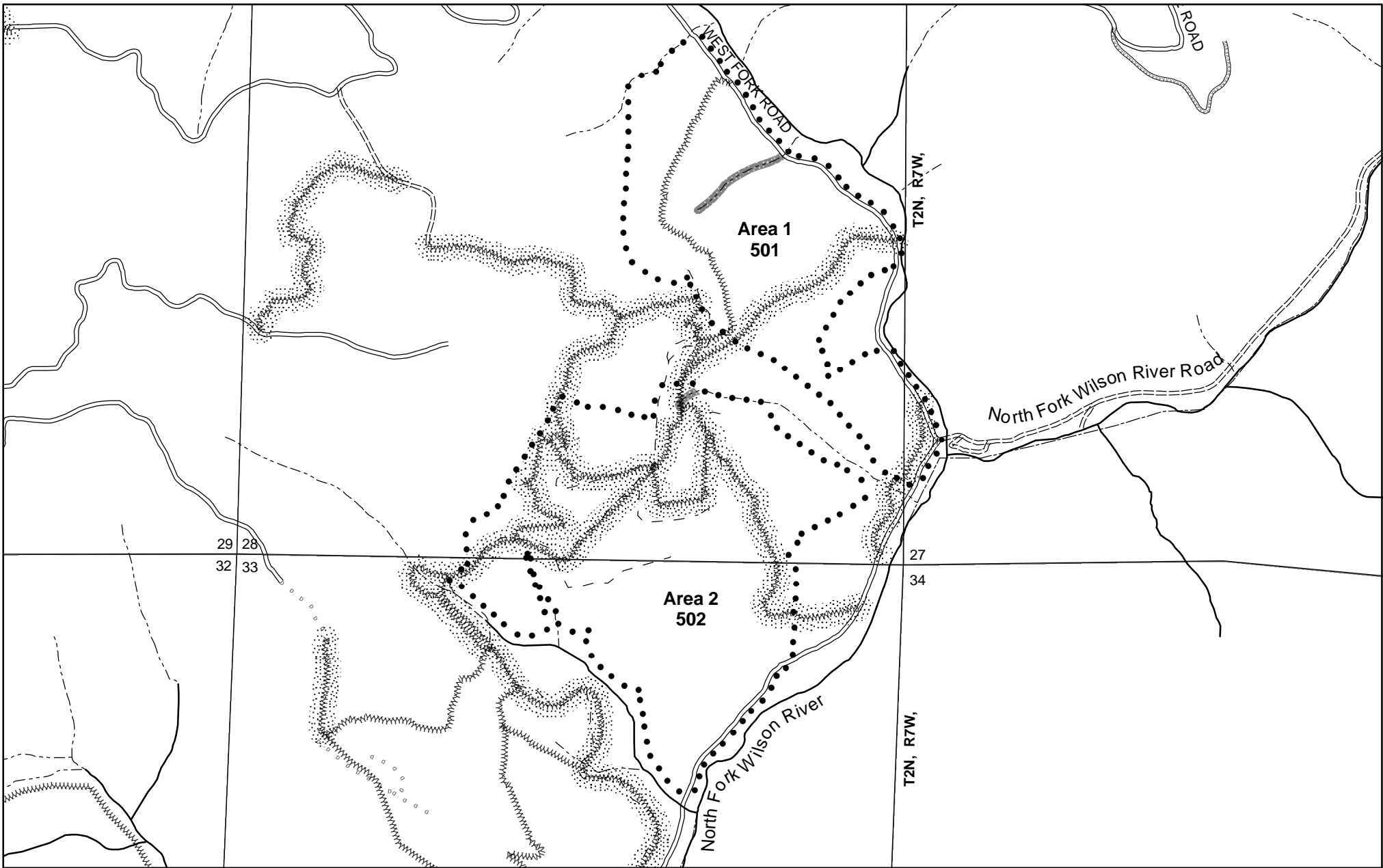


3 -- Key Resources/Operationally Limited --
2010 SALE PLAN
TILLAMOOK DISTRICT
 Portions of Sections 27, 28, and 33
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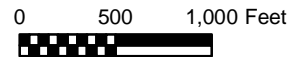
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Area	Type of Operation
1	Modified Clearcut
2	Modified Clearcut

Tillamook District GIS
 6/24/2009
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- Buffer
- Focused
- Special
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream*
- Perennial Type-N stream*
- Unsurfaced road
- Surfaced road
- State/Federal highway
- Abandoned road
- Blocked road
- Road construction
- County road
- Transmission line
- OHV trail
- Non-motorized trail



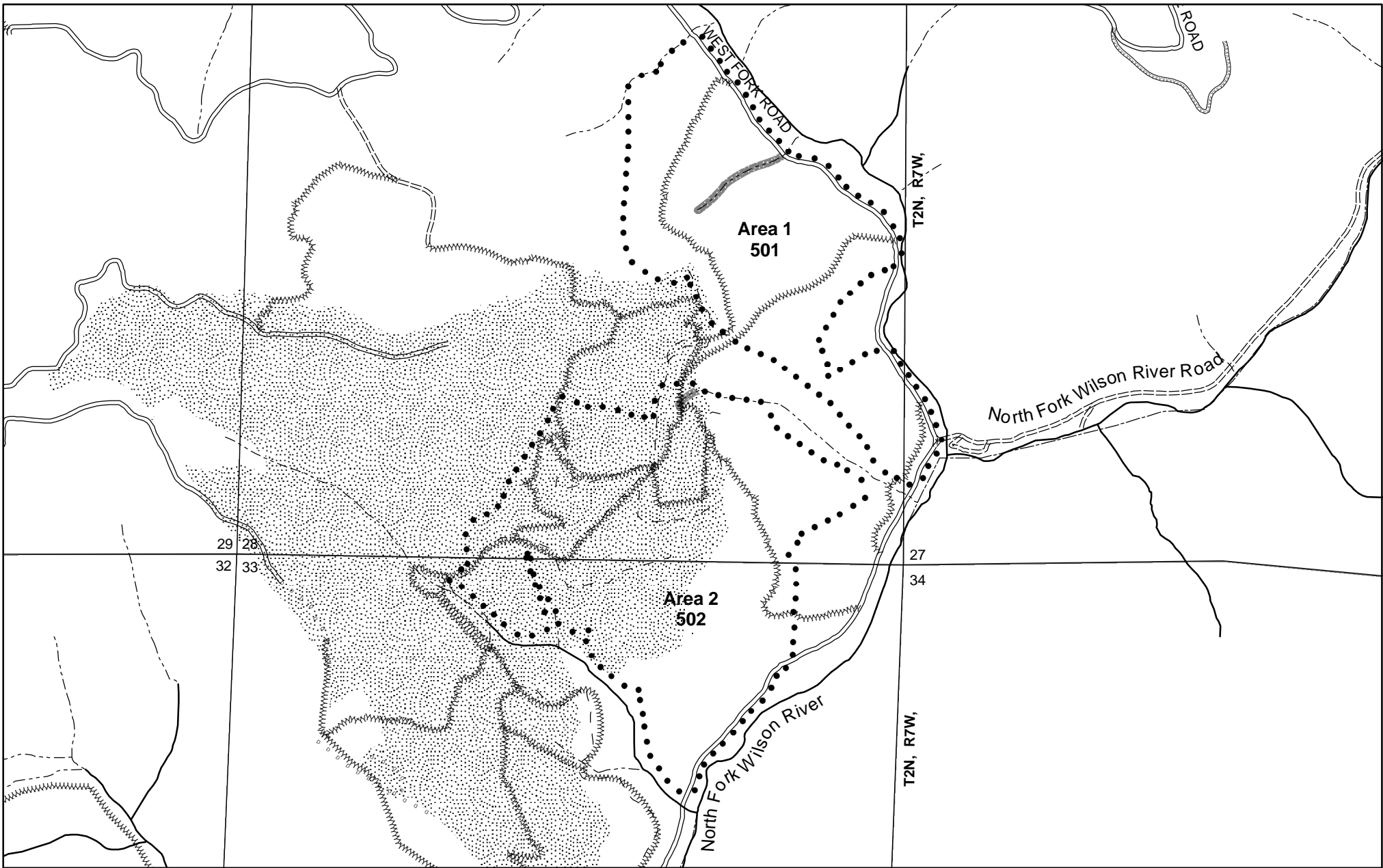
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North Morris
-- Key Resources/Recreation --
2010 SALE PLAN
TILLAMOOK DISTRICT
 Portions of Sections 27, 28, and 33
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 Tillamook County, Oregon

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2	Modified Clearcut

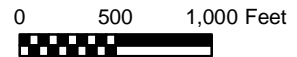
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- | | | |
|---------|--------------------------|---------------------|
| Buffer | Area boundary | Abandoned road |
| Focused | Sale boundary | Blocked road |
| Special | Ownership boundary | Road construction |
| | Perennial Type-F stream* | County road |
| | Perennial Type-N stream* | Transmission line |
| | Unsurfaced road | OHV trail |
| | Surfaced road | Non-motorized trail |
| | State/Federal highway | |

3

North Morris
-- Key Resources/Visual --
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TILLAMOOK DISTRICT
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Area	Type of Operation
1	Modified Clearcut
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 6/24/2009
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