

Pre-Operations Report

Operation Name: C-addle
County: Tillamook and Washington
Management Basin: Rogers

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
1	Moderate Partial Cut	92	88
2	Moderate Partial Cut	138	111
3	Moderate Partial Cut	129	119
Total	Partial Cut Harvest	359	318
4	Modified Clearcut	119	106
5	Modified Clearcut	43	42
Total	Regeneration Harvest	162	148

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

Slopes have a varied aspect and range from 0% to 90%, but are predominantly 0% to 30%. Elevations range from 2720 to 3440 feet. Elsie and Dovre are the major soil types of the sale area.

The sale is located on gentle slopes below the ridgeline divide of Saddle Mountain between the South Fork of The Wilson River to the north and Sunday Creek and the North Fork of the Trask River to the south. The sale is underlain by igneous origin rock of intrusive Diabase (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

II. CURRENT STAND CONDITION:

The sale area burned in the 1933, 1939, and 1945 Tillamook Burns. It was then seeded in the late 1940's and again in the mid 1960's. Approximately 60% of Area 3 was thinned in the mid 1990's. The rest of the sale area has not been managed.

The entire sale area has been inventoried using the Stand Level Inventory (SLI) procedure and the stands have been classified as CSC and UDS (see table 3).

Area 1:

This is a 40-year-old, high elevation, mixed conifer stand. The stand consists of Douglas-fir, hemlock, noble fir and cedar. The current condition is mostly UDS,

with an understory of vine maple, sword fern, dwarf Oregon-grape, huckleberry, and regeneration conifers. The rest of the area is classified CSC.

Area 2:

A 40-45 year old mixed noble fir, Douglas-fir, hemlock stand. Stocking is somewhat clumpy with overstocked and understocked areas in the northwest third of the area. The southeast stand yields a more CSC appearance with little understory development, and overstocked stand type. Current condition is UDS with an understory consisting of hemlock, noble fir, swordfern, vine maple and huckleberry.

Area 3:

This is a 40-50 year-old, predominantly Douglas-fir, noble fir, and hemlock stand type. Stocking is uniform and dense. Current condition is a mix of UDS and CSC. There is scattered dwarf Oregon-grape, salal, fern and huckleberry in the understory.

Area 4:

This is a 40-year-old predominately Douglas-fir and hemlock stand. Current stand condition is a mix of UDS and CSC, with dwarf Oregon- grape, vine maple, salal, fern and huckleberry in the understory. Although there is no current SLI data on Snags and DWD, the area is very similar to areas 1 and 3.

Area 5:

This is a 44 year-old Douglas-fir and hemlock stand. Current condition is an overstocked Douglas-fir and hemlock stand in a predominately CSC condition, with small portions of the area in UDS development. There is currently very little understory development, consisting of hemlock, and vine maple.

Snags and DWD:

Areas 1, 2, 3, and 5 have an estimated 13 hard snags per acre and 200 cu.ft. of class 1,2 DWD and 3,200 cu.ft. of class 3,4,5 DWD per acre. There is little evidence of *Phellinus*.

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age ²	DBH	BA	TPA	SDI	Net Acres ³
1	PC-M ⁴	8001	DF, NF	35, 43-58, 116	14	227	216	61	10
		8003	DF	39-47	15	183	146	47	78
		<i>Target</i> ⁵	<i>DF, NF</i>		16	140	100	35	88
2	PC-G ⁴	8001	DF, NF	35, 43-58, 116	14	227	216	61	79
		8003	DF	39-47	15	183	146	47	22
		8011	DF, NF	34-42, 54	16	211	148	53	10
		<i>Target</i> ⁵	<i>DF, NF</i>		17	160	100	39	111
3	PC-M ⁴	7996	DF	46-48	16	191	138	48	20
		8001	DF, NF	35, 43-58, 116	14	227	216	61	14
		8011	DF, NF	34-42, 54	16	211	148	53	23
		8013	DF	46-50	15	219	183	57	8
		8019	NF, DF	44-46	17	184	113	45	25
		8023	DF, NF	33, 45-46	15	276	232	72	29
		<i>Target</i> ⁵	<i>DF, NF</i>		18	140	80	33	119
4	MC ⁴	8022	DF	31, 44-46	13	235	265	65	21
		8023	DF, NF	33, 45-46	15	276	232	72	85
		<i>Target</i> ⁵	<i>REG</i>						
5	MC ⁴	8011	DF, NF	34-42, 54	16	211	148	53	42
		<i>Target</i> ⁵	<i>REG</i>						

¹ The source of stand inventory information is from SLI completed in 2006 or grown forward to 2006.

² Actual measured breast height ages are shown unless labeled “est.”

³ The acres are based on GIS and exclude existing and planned roads, stream buffers, green tree retention areas, and non-thinnable areas.

⁴ PC-M is Moderate Partial Cut, PC-G is a Group Selection Partial Cut, MC is Modified Clearcut,.

⁵ The Target row for partial cut areas identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED FUTURE CONDITION/VISION:

According to the Forest Grove District’s landscape design for the Rogers basin, the desired future condition (DFC) for Areas 1, 4, and 5 are 100% General. Area 2 is 68% LYR and 32% General. Area 3 is 43% LYR and 57% General.

Area 1:

This is a first entry moderate partial cut. By conducting a moderate partial cut, the area will receive a much-needed release allowing for increased diameter growth in reserve timber, as well as allowance for understory development. Recommendation for this site is to receive another moderate partial cut in 15-20 years to further increase diameter growth and advance understory development. After the second partial cut harvest, regeneration harvest should occur in 15-20 years in order to promote landscape level diversity by creating REG structure.

Area 2:

This area first entry group selection partial cut. The prescription for this area will be a group selection (PC-G) with a vision of creating complex stand structure in 30 years. The prescription consists of creating varying gaps in size from 0.4 to 1.6 acres. This prescription will remove 33% of the existing stand volume. The area currently has a very diverse tree species composition and is in a UDS stage, natural gaps will coincide with created gaps in order to further advance horizontal diversity and promote LYR/OFS structure. Natural regeneration in the gaps will increase stand level diversity and structure. It is expected that gaps will quickly reestablish with noble fir, hemlock, and Douglas-fir. In 20-30 years the residual two-thirds of the stand should receive two different treatments to allow further understory development. The northwest 40% of the area should receive a retention cut, while the southeast 60% should receive a moderate partial cut with protection of the 2008 gaps.

Area 3:

This is a first entry moderate partial cut. The area will receive a much-needed release, allowing for increased diameter growth in reserve timber, as well as allowing for understory development in an area already lacking in that aspect.

Area 4:

This area will have a final harvest age of 42-50, and is entirely in DFC GEN. The area 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.

Area 5:

Area 5 will be a modified clearcut in a 46-54 year-old stand. The DFC is 100% GEN. Post harvest the area 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.

Table 3. Stand Structure Information

Area	Prescription	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
1	PC-M	8001	CSC	UDS	GEN	10
		8003	UDS	UDS	GEN	78
2	PC-G	8001	CSC	UDS	GEN	14
					LYR	65
		8003	UDS	UDS	GEN	22
		8011	UDS	UDS	LYR	10
3	PC-M	7996	CSC	UDS	GEN	20
		8001	CSC	UDS	LYR	14
		8011	UDS	UDS	GEN	11
					LYR	12
		8013	UDS	UDS	GEN	8
		8019	UDS	UDS	LYR	25
8023	UDS	UDS	GEN	29		
4	MC	8022	UDS	REG	GEN	21
		8023	UDS	REG	GEN	85
5	MC	8011	UDS	REG	GEN	42

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION AND PATHWAY:

Area 1:

Moderate partial cut to an RD of 30-33 and a basal area of 120-130. Due to an already diverse array of conifer species, there will be no conifer restrictions. After harvest, average dbh will be 16-17 inches. The area will be a mix of cable and ground based harvest operation.

Area 2:

Group Selection harvest (PC-G) with the goal of treating one-third of area acres. Gap size will consist of 75 and 150 radius, and a large (>24" dbh) identifier center-tree or clumps of several trees together should be used to mark gap centers. There will be one large and one small gap every six acres. This estimate will yield roughly 20, 0.4-acre gaps and 20, 1.6-acre gaps for a total of 40 acres of the estimated 120-acre area (33%). 100% of the area is available for ground-based operation allowing for more freedom in gap placement in order to promote horizontal diversity, and lessen short-term site impact. The area will be allowed to reseed naturally, unless reestablishment in gaps is evaluated as lacking stocking. Areas that become brushy should be spot sprayed with herbicide to allow for conifer release. The area should be monitored in the first few years post harvest in order to document success of conifer reestablishment.

Area 3:

Moderate partial cut to SDI 30-33 and a basal area of 130-140. This allows for residual dbh of 18 inches. Again, there will be no restriction on conifer take species due to stand level diversity. The area will be 70% ground and 30% cable yarded. Recommendation for this site is to receive another moderate partial cut in 15-20 years to further increase diameter growth and advance understory development. This will be followed up with regeneration harvest in DFC GEN areas 15-20 years after second entry, to capture maximum height growth potential, and promote landscape level diversity.

Area 4:

Modified clearcut and broadcast burn post harvest. Green tree retention will be concentrated along the streams and wet areas in the lower elevations, with several leave trees left in the higher elevations for snag creation via burn activity. Need for fire trailing will be analyzed post harvest, but is not likely needed due to existing breaks in the form of roads and trails. Nine conifer trees per acre will be reserved, with two topped for snag creation. Existing snags will be left if it is safe to do so and all existing DWD will be left. Depending on how many existing snags remain standing after logging, there will be an estimated 600 cu.ft. of class 1,2 and 3000 cu.ft. of class 3,4,5 DWD. More recruitment of snags and DWD is expected through the burn activity. It is anticipated that the newly established plantation will be scheduled for pre-commercial 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 5:

Modified clearcut; post harvest mechanical piling of slash on shovel ground, and aerial herbicidal site preparation in cable operation areas is planned. No cedar will be targeted for harvest; green tree retention will be clumped. Additional snags and large woody debris should be recruited through natural processes before the next management entry. Nine conifer trees per acre will be reserved, with two topped for snag creation. Existing snags will be left if it is safe to do so and all existing DWD will be left. An estimated 600 cu. ft. of class 1 and 2 and 3000 cu. ft. of class 3, 4, and 5 DWD is expected after logging. Pre-commercial thinning at age 15 to provide much needed release for the stand will aid in reestablishment. Due to the site class of the area, promotion of a LYR/OFS structure by commercial thinning between ages 40-50 is recommended. During harvest, creation of snags and adding down woody debris will increase horizontal diversity in the short and long-term life of the area.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	%		X
Planned Quarter: 1-4			

	Conifer	Hardwood	Total
Net Volume (MBF)	8300		8300
Stumpage Value (\$/MBF)	\$365		
Estimated Gross Value			\$3,029,500
		Project Costs:	\$196,500
		Estimated Net Value:	\$2,833,000

VI. HARVESTING AND ACCESS CONSIDERATIONS:

The sale areas are accessed via Beaver Dam, C-line, and Saddle Mountain Roads, which are currently all weather, crushed rock surface roads. Another key access road will be Seven Cedars Road, which will require maintenance.

Approximately 0.8 miles of Seven Cedars Road as well as 1 mile of Saddle Mountain Road will be improved which includes grading, rocking, culvert replacement, and adding new culverts, costing approximately \$72,000.

Approximately 1.3 miles of rocked road, and 0.45 miles of dirt spur will be constructed for sale access costing approximately \$85,000 (see maps for specific road locations and conditions).

Approximately 5,000 cubic yards of 3"-0 will be crushed and stockpiled for future timber sales and road maintenance at a cost of \$35,000

In addition, OHV trail clearing and replacement work will have to be done on portions of Dog Leg, and Saddle Up trails. A total of 16 stations of dirt spur will be converted back to Dog Leg trail, and 37 stations of Saddle Up trail will be cleared post harvest. Approximately one mile of OHV trail relocation and clearing will be required. Cost for this is \$36 per station for clearing, and \$200 per station for excavation; costing an estimated \$4,500.

Total project costs are \$196,500.

The operation will be 45% cable yarding and 55% ground based yarding.

Table 5. Transportation Management Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construction	0	0	1.3	0.5
Improvement	0	0	1.8	0
Maintenance	0	11.0	3.1	0.5
Closure/Vacation	0	0	0	0

VII. AQUATIC RESOURCES AND WATER QUALITY:

According to Forest Grove's GIS stream layer, a small, type F tributary of Sunday Creek flows through the south end of Area 4. A fish presence survey will be requested for this stream. At this time, a buffer will be posted 120' from the stream for our purposes. GIS showed no other streams within the sale boundary. Any perennial streams identified in the planning process will be managed according to FMP strategies.

High quality crushed rock road surfaces will be maintained and log hauling will be restricted between November 1st and March 31st of each year. Restrictions may include a limit on the number of loads per day or no hauling at all during periods of heavy precipitation.

Part of Area 4 is within the Trask Watershed. The Trask Watershed Analysis will be checked for recommendations that could be applied during this sale.

VIII. T&E SPECIES CONSIDERATIONS:

The sale areas have been reviewed with the ODF Northwest Oregon Area Biologist (Area Biologist).

Spotted owl surveys are not required for C-addle, as the sale area is within the Tillamook Burn (see November 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*).

Potentially suitable marbled murrelet habitat (two survey sites) within Area 2 and Area 4 was surveyed for murrelets in 2006. The presence of murrelets was not detected during the 2006 surveys. The second year of survey will be completed in 2006. All surveys were/will be completed in accordance with PSG protocol.

This operation does not involve an activity that is listed in the National Marine Fisheries Service (NMFS) adopted rules under Section 4(d) of the Endangered Species Act. Neither the sale area nor the haul route is in close proximity to a stream with listed fish.

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 steep slopes along the central portion of the West boundary sale Area 1 associated with the headwaters of the South Fork of The Wilson River. The initial risk assessment by the geotechnical specialist for the sale is low except for these slopes. If these steep slopes remain within the sale area as the sale layout proceeds, the geotechnical specialist will be consulted to determine if a field visit is needed (*per Dave Michael, Northwest Oregon Area Geotechnical Specialist*).

X. RECREATION RESOURCES:

The sale area is designated as Motorized in the Tillamook State Forest Comprehensive Recreation Plan (1993). The District Recreation Coordinator has reviewed this sale, and suggests:

Unauthorized OHV trails were identified within or adjacent to the sale areas. Trails will be evaluated by the District Recreation Coordinator to determine if the trails should be protected, rehabilitated, and/or blocked to access. Further assessment will likely occur at time of timber sale preparation.

Portions of Fire Break Five, Saddle Up, and Dog Leg trails are within and/or adjacent to the sale area. Dog Leg will be converted to dirt spur during the timber sale, and portions used as road and within sale boundaries will be reconstructed post operation. Short-term closure of all three trails and associated trailheads will occur to facilitate logging and public safety. Trail replacement in specific areas and slash removal will be in order for the OHV trails upon completion of the operation. A plan will be developed to advise the public when trails are closed due to harvest activity.

In addition, need for ripping and slashing of other sale area dirt spurs will have to be assessed by the recreation coordinator.

XI. CULTURAL RESOURCES:

The sale area was checked against the Tillamook State Forest Cultural Resource Inventory GIS data. This data source identified one cultural site adjacent to the sale area (within 200 feet).

The resource is described as:

- “South Fork Trestle” (Class 2 – Internal Protection Required)

The location of the trestle is across C-Line Road north of the sale area and should not be impacted by harvest or hauling activity. The district will consult the

Public Use Coordinator (ODF Salem Staff) for appropriate protection measures of this site.

XII. SCENIC RESOURCES:

The sale area is in an area of low visual sensitivity.

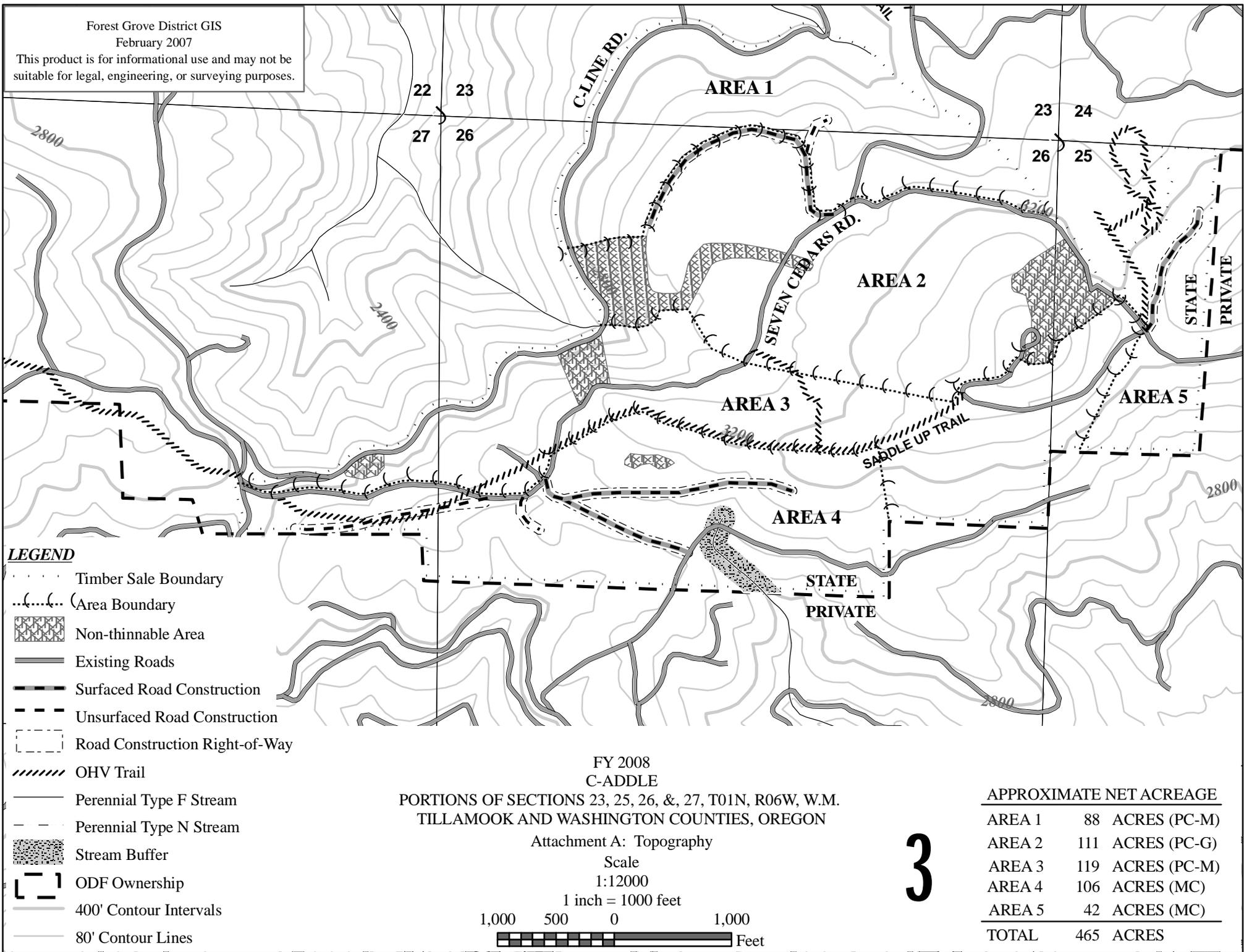
XIII. OTHER RESOURCE CONSIDERATIONS:

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:

Area 4 contains Focused and Special Stewardship, Aquatic and Riparian Habitat Subclass, due to the presence of a Type F perennial stream within the sale area. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized. All five sale areas are classified as Focused Stewardship, Recreation Subclass. See Section X, Recreation Resources, for the strategies that will be implemented to minimize impacts to trail resource.



LEGEND

- Timber Sale Boundary
- Area Boundary
- Non-thinnable Area
- Existing Roads
- Surfaced Road Construction
- Unsurfaced Road Construction
- Road Construction Right-of-Way
- OHV Trail
- Perennial Type F Stream
- Perennial Type N Stream
- Stream Buffer
- ODF Ownership
- 400' Contour Intervals
- 80' Contour Lines

FY 2008
 C-ADDLE
 PORTIONS OF SECTIONS 23, 25, 26, & 27, T01N, R06W, W.M.
 TILLAMOOK AND WASHINGTON COUNTIES, OREGON

Attachment A: Topography

Scale
 1:12000

1 inch = 1000 feet

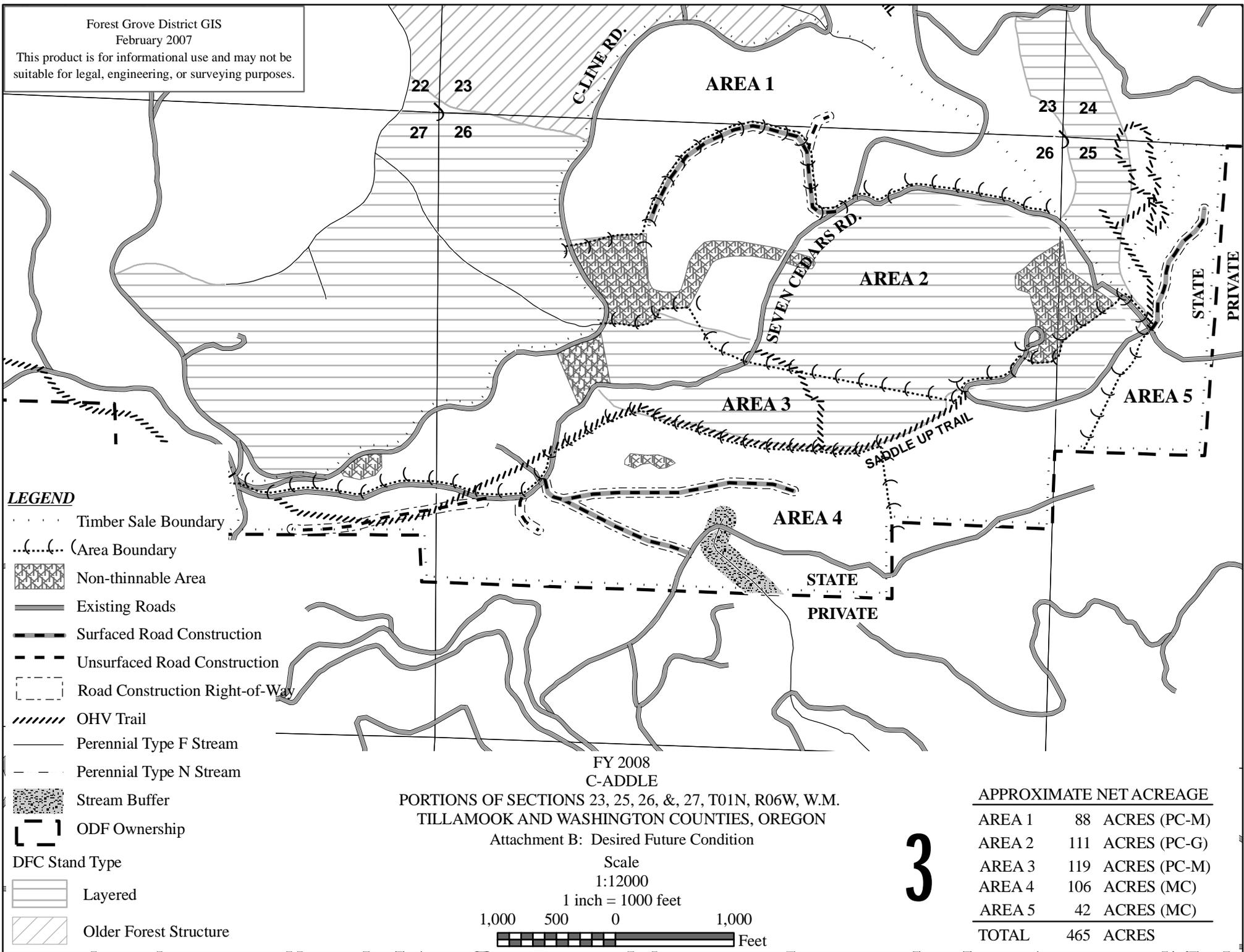


APPROXIMATE NET ACREAGE

AREA 1	88 ACRES (PC-M)
AREA 2	111 ACRES (PC-G)
AREA 3	119 ACRES (PC-M)
AREA 4	106 ACRES (MC)
AREA 5	42 ACRES (MC)
TOTAL	465 ACRES

3

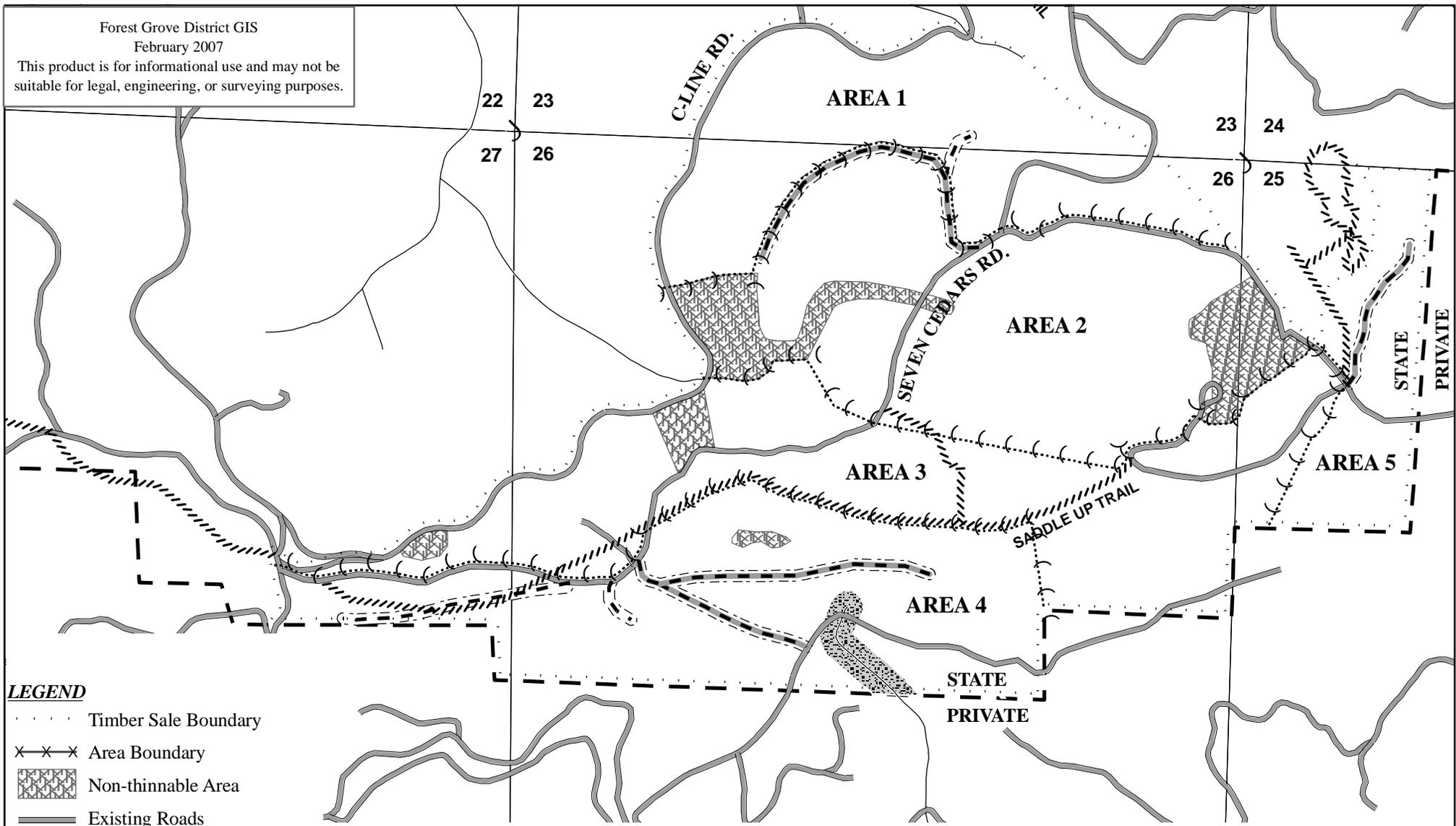
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.



FY 2008
C-ADDLE
PORTIONS OF SECTIONS 23, 25, 26, & 27, T01N, R06W, W.M.
TILLAMOOK AND WASHINGTON COUNTIES, OREGON

Attachment B: Desired Future Condition

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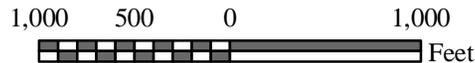
- LEGEND**
- Timber Sale Boundary
 - ××× Area Boundary
 - [Cross-hatched box] Non-thinnable Area
 - Existing Roads
 - Surfacd Road Construction
 - - - Unsurfaced Road Construction
 - [Dashed box] Road Construction Right-of-Way
 - [Dashed box] ODF Ownership
 - ////// OHV Trail
 - Perennial Type F Stream
 - - - Perennial Type N Stream
 - [Stippled box] Stream Buffer

FY 2008
 C-ADDLE
 PORTIONS OF SECTIONS 23, 25, 26, & 27, T01N, R06W, W.M.
 TILLAMOOK AND WASHINGTON COUNTIES, OREGON

Attachment C: Key Resources
 (Recreation)

Scale
 1:12000

1 inch = 1000 feet



3

APPROXIMATE NET ACREAGE		
AREA 1	88	ACRES (PC-M)
AREA 2	111	ACRES (PC-G)
AREA 3	119	ACRES (PC-M)
AREA 4	106	ACRES (MC)
AREA 5	42	ACRES (MC)
TOTAL	465	ACRES