



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Cost Summary Sixteen Loons Thinning Sale 341-04-25

District: Coos

Date: 4/29/03

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$276,350.10	\$0.00	\$276,350.10
		<b>Project Work</b>	(\$28,015.20)
		<b>Advertised Value</b>	\$248,334.90



# Timber Sale Appraisal Timber Description Sixteen Loons Thinning Sale 341-04-25

"STEWARDSHIP IN FORESTRY"

**District:** Coos

**Location:** Portions of Sections 4,11,14, 22,23,29,30,31 and 32  
T23S R10W WM.  
Coos and Douglas Counties.

**Date:** 4/29/03

**Stand Stocking:** 20%

Species	Avg. DBH	Amortized%	Recovery %
Douglas - Fir	11	0	100
Western Hemlock / Fir	10	0	100

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Total
2S	257	0	257
3S	824	78	902
4S	210	17	227
<b>Total</b>	1,291	95	1,386

**Comments:** Pond Values Used: 1st Quarter 2003

Cable thinning of small timber



# Timber Sale Appraisal Logging Conditions Sixteen Loons Thinning Sale 341-04-25

"STEWARDSHIP IN FORESTRY"

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**Combination#:** 1      Douglas - Fir      100.00%  
                                 Western Hemlock / Fir      100.00%

**Yarding Distance:** Short (400 ft)      **Downhill Yarding:** No  
**Logging System:** Cable: Small Tower <=40      **Process:** Stroke Delimber  
**Tree Size:** Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF  
**Loads/Day:** 4      **Bd. Ft./Load:** 3,400  
**Cost/MBF:** \$233.01

**Machines:**  
Log Loader (A)  
Stroke Delimber (A)  
Tower Yarder (Small)



# Timber Sale Appraisal Logging Costs Sixteen Loons Thinning Sale 341-04-25

"STEWARDSHIP IN FORESTRY"

Date: 4/29/03

Operating Seasons: 1.0

Profit & Risk: 10%

Project Costs: \$28,015

Other Costs (P/R): \$12,367

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.5	4.4	0.0	0.0

Road Maintenance: \$0.00

### Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.5
Western Hemlock / Fir	\$0.00	2.0	3.5



# Timber Sale Appraisal Logging Costs Breakdown Sixteen Loons Thinning Sale 341-04-25

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir
<b>Logging</b>	233.01	233.01
<b>Road Maintenance</b>	2.44	2.44
<b>Fire Protection</b>	1.96	1.96
<b>Hauling</b>	65.70	65.70
<b>Other (P/R appl.)</b>	8.92	8.92
<b>Profit &amp; Risk</b>	31.20	31.20
<b>Slash Disposal</b>	0.00	0.00
<b>Scaling</b>	2.00	2.00
<b>Other</b>	0.00	0.00
<b>Total</b>	345.23	345.23

<b>Amortization</b>	0.00	0.00
<b>Pond Value</b>	557.23	373.21
<b>Stumpage</b>	212.00	27.98
<b>Amortized</b>	0.00	0.00



# Timber Sale Appraisal Summary Sixteen Loons Thinning Sale 341-04-25

"STEWARDSHIP IN FORESTRY"

## Amortized

	Douglas - Fir	Western Hemlock / Fir
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

## Unamortized

	Douglas - Fir	Western Hemlock / Fir
MBF	1,291.00	95.00
Value	212.00	27.98
Total	273,692.00	2,658.10

## Gross Timber Sale Value

**Recovery \$276,350.10**

Prepared by: Robert Fields

Date: 4/29/03

District: Coos

Phone: (541) 267-1755

**SUMMARY OF CONSTRUCTION COST**  
**Sixteen Loons Thinning**

**Project 1A: Road and Landing Improvement - Areas I & II**

Points:	Type:	Length:
A to B	14' w/ditch	1900'
B to C	14' no ditch	2775'

**Clearing and Grubbing**

Clear brush and small trees from road	<u>1</u>	acres at	<u>\$400.00</u>	\$ per acre =	<u>\$400.00</u>
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**Total clearing and grubbing** \$400.00

**Excavation**

Cat time for improvements (B to C)	<u>16</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$1,520.00</u>
Excavator to clean up small slides (A to B)	<u>1</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$110.00</u>
Excavator to pick up cutbank slough (B to C), remove debris at Pt. B, and prep 24" culvert Laborer	<u>10</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$1,100.00</u>
	<u>16</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$480.00</u>

**Total Excavation** \$3,210.00

**Hauling**

Haul slough/slide (A to B) material	<u>1</u>	hrs at	<u>\$55.00</u>	per hr	<u>\$55.00</u>
Haul debris from Point B	<u>2</u>	hrs at	<u>\$55.00</u>	per hr	<u>\$110.00</u>

**Total Hauling** \$165.00

**Culvert Installation - Cost includes installation w/excavator**

Install 18" Culvert at Sta 20+80 (B to C)	<u>30</u>	feet at	<u>\$12.00</u>	per foot	<u>\$360.00</u>
18" Culvert Band	<u>1</u>	band at	<u>\$8.00</u>	per band	<u>\$8.00</u>
Install 24" Culvert at Sta 22+60 (B to C)	<u>60</u>	feet at	<u>\$15.00</u>	per foot	<u>\$900.00</u>
24" Culvert Band	<u>2</u>	bands at	<u>\$12.75</u>	per band	<u>\$25.50</u>

**Total Culvert Installation** \$1,293.50

**Grade Road Surface**

Grader to pull ditch and smooth A to B and to shape B to C for haul traffic	<u>3</u>	hrs Grade @	<u>\$75.00</u>	per hour	<u>\$225.00</u>
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**Total Grading** \$225.00

**Project 1A Cost** \$5,293.50

**Project 1B: Road and Landing Improvement - Area III**

Points:	Type:	Length:
D to G	14' no ditch	1750'
E to F	14' no ditch	3500'
G to H	14' no ditch	1370'

**SUMMARY OF CONSTRUCTION COST  
Sixteen Loons Thinning**

**Clearing and Grubbing**

Clear roadside brush (D to G)	<u>0.5</u>	acres at	<u>\$400.00</u>	\$ per acre =	<u>\$200.00</u>
Clear & grub trees and brush in road (E to F)	<u>1.2</u>	acres at	<u>\$870.00</u>	\$ per acre =	<u>\$1,044.00</u>
Clear & grub trees and brush in road (G to H)	<u>0.5</u>	acres at	<u>\$870.00</u>	\$ per acre =	<u>\$435.00</u>

**Total clearing and grubbing**                      \$1,679.00

**Excavation**

Cat time for improvements (D to G)	<u>8</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$760.00</u>
Cat time for improvements (E to F)	<u>20</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$1,900.00</u>
Excavator for pullback and widening (E to F)	<u>5</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$550.00</u>
Cat time for improvements (G to H)	<u>8</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$760.00</u>
Laborer	<u>36</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$1,080.00</u>

**Total Excavation**                      \$5,050.00

**Hauling**

Haul pullback and slough material to landings for dispersal	<u>5</u>	hrs at	<u>\$55.00</u>	per hr	<u>\$275.00</u>
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**Total Hauling**                      \$275.00

**Grade Road Surface**

Grade all spurs to smooth road surface	<u>4</u>	hrs Grade @	<u>\$75.00</u>	per hour	<u>\$300.00</u>
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**Total Grading**                      \$300.00

**Project 1B Cost**                      \$7,304.00

**Project 1C: Road and Landing Improvement - Area V**

Points:	Type:	Length:
I to J	14' no ditch	6600'
L to M	14' no ditch	2100'

**Clearing and Grubbing**

Clear road side brush (I to J)	<u>0.75</u>	acres at	<u>\$400.00</u>	\$ per acre =	<u>\$300.00</u>
Clear road side brush (L to M)	<u>0.5</u>	acres at	<u>\$400.00</u>	\$ per acre =	<u>\$200.00</u>

**Total clearing and grubbing**                      \$500.00

**Excavation**

Excavator for landing at Pt K, includes walk-in	<u>7</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$770.00</u>
Cat time for improvements (Pts L to M)	<u>6</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$570.00</u>
Cat time for landing construction at Pt M	<u>4</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$380.00</u>
Excavator for landing construction at Pt M	<u>3</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$330.00</u>



**SUMMARY OF CONSTRUCTION COST  
Sixteen Loons Thinning**

Install temporary stream crossing w/excava.	<u>3</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$330.00</u>
Remove temporary crossing at completion of sale w/ excavator Laborer	<u>2</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$220.00</u>
	<u>10</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$300.00</u>
<b>Total Excavation</b>					<b>\$2,900.00</b>

**Grade Road Surface**

Grading for I to J and L to M	<u>5</u>	hrs Grade @	<u>\$75.00</u>	per hour	<u>\$375.00</u>
<b>Total Grading</b>					<b>\$375.00</b>

**Project 1C Cost      \$3,775.00**

**Project 1D: Road and Landing Improvement - Area VI**

Points:      Type:      Length:  
N to O      14' no ditch      5535'

**Clearing and Grubbing**

Clear brush and small trees at road edges	<u>2</u>	acres at	<u>\$400.00</u>	\$ per acre =	<u>\$800.00</u>
<b>Total clearing and grubbing</b>					<b>\$800.00</b>

**Excavation**

Cat time for improvements	<u>20</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$1,900.00</u>
Excavator time for improvements	<u>20</u>	hrs at	<u>\$130.00</u>	per hr	<u>\$2,600.00</u>
Laborer	<u>20</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$600.00</u>
<b>Total Excavation</b>					<b>\$5,100.00</b>

**Culvert Installation**

Install 18" Culvert	<u>30</u>	feet at	<u>\$12.00</u>	per foot	<u>\$360.00</u>
Install 18" Culvert	<u>30</u>	feet at	<u>\$12.00</u>	per foot	<u>\$360.00</u>
Install 18" Culvert	<u>30</u>	feet at	<u>\$12.00</u>	per foot	<u>\$360.00</u>
Install 18" Culvert	<u>40</u>	feet at	<u>\$12.00</u>	per foot	<u>\$480.00</u>
18" Culvert Bands	<u>4</u>	bands at	<u>\$8.00</u>	per band	<u>\$32.00</u>
<b>Total Culvert Installation</b>					<b>\$1,592.00</b>

**Grade Road Surface**

	<u>3</u>	hrs Grade @	<u>\$75.00</u>	per hour	<u>\$225.00</u>
<b>Total Grading</b>					<b>\$225.00</b>

**Project 1D Cost      \$7,717.00**

**SUMMARY OF CONSTRUCTION COST  
Sixteen Loons Thinning**

**Move-in**

Equipment	Miles	Mileage Factor	Equipment Allowance	Total
Excavator	35	0.74	\$533.00	\$394.42
D7 Cat	35	0.74	\$387.00	\$286.38
Grader	35	0.74	\$241.00	\$178.34
Dump Truck	35	0.74	\$144.00	\$106.56

**Total Move-in                    \$965.70**

**Move-Between**

Lowboy used to move Excavator and Cat between areas	<u>36</u>	hrs at	<u>\$75.00</u>	per hr	<u>\$2,700.00</u>
Grader move between areas	<u>2</u>	hrs at	<u>\$75.00</u>	per hr	<u>\$150.00</u>
Dump Truck move between areas	<u>2</u>	hrs at	<u>\$55.00</u>	per hr	<u>\$110.00</u>

**Total Move-between            \$2,960.00**

**Total Project Cost    \$28,015.20**

## TIMBER SALE SUMMARY

### Sixteen Loons Thinning

1. **Type of sale:** Thinning; Recovery, Sealed Bid.
2. **Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging or at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% CSL; 55% Coos and 45% Douglas County.
4. **Sale Acreage:** Gross sale acreage is 268 acres. Net acres (total 224) to be harvested are approximately; Area 1 = 25 acres, Area 2 = 8 acres, Area 3 = 120 acres, Area 4 = 14 acres, Area 5 = 48 acres and Area 6 = 9 acres. Within these sale areas, there will be 14 acres (~.25 to 2 acre parcels) designated as group selection cuts. The acreage was determined from Ortho photography using an area measuring tool in Arcview GIS software.
5. **Volume by Species, Fund, and County:** See attached table.
6. **Grade by Percent:**

Species	3 Peeler	Special Mill	2 Saw	3 Saw	4 Saw/Camp
Douglas-fir	-----	-----	20%	64%	16%
W Hemlock	-----	-----	-----	83%	17%
Hardwood	-----	-----	-----	-----	

7. **Cruise:** Units were variable plot cruised using a 20 - 40 BAF wedge factor. Whole plots were measured with diameter and height recorded for all trees on measure plots. Cruise/count ratio was 1:1. Cruise data was compiled by Second Growth of Eugene and Oregon Department of Forestry personnel using the SuperACE cruising program.

#### A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE %
D4H	Total Height	Conifer: 16' Hardwood: 4'	Estimated	24-62	5-16

#### B. Summary of cut trees:

Area (acres)	Species	Ave D4 H	Trees/Acre	Basal Area (ft <sup>2</sup> /ac)	Net MBF/acre
1 (25)	Douglas-fir	12	18	15	0.8
	W Hemlock	10	57	34	3.2

2 (8)	Douglas-fir	12	38	24	1.9
	W Hemlock	11	41	26	2.1
3 (108)	Douglas-fir	11	85	50	6.0
4 (13)	Douglas-fir	10	72	43	4.1
5 (45)	Douglas-fir	11	117	75	10.6
6 (9)	Douglas-fir	11	47	30	2.6
Group Selection Areas (14)	Douglas-fir	11	232	177	29.6

- 8. Timber Description:** Stocking and tree sizes vary greatly in some stands, but the portions of sale areas to be harvested consist of moderate to dense stocked stands, 30 to 45 year-old, second growth Douglas Fir and western hemlock. Some stands have small amounts of red alder and Grand Fir components.
- 9. Topography:** The stand ranges from mild slopes of about 30% to steep slopes of 75%. Harvest areas are moderately dissected by several small draws and ridges.
- 10. Logging Method:** The sale will be cable logged uphill with single-end suspension over the units; full suspension will be required over designated streams and RMAs. A motorized carriage will be required to obtain the necessary suspension. A seasonal restriction will apply to Area 4 from April 1st through September 15th.
- 11. Access:** Entering the forest from the south past Allegany, take Marlow Creek/Elk Ridge Road (1000 line) north
- Approximately 13 miles to Areas 3 and 4.
  - Approximately 19.5 miles, turn right on 1940 Road, head south approximately 0.5 mile to Areas 1 & 2
  - Approximately 20 miles, turn left on 1960 Road, head northerly approximately 1 mile to Area 5.
  - Approximately 16 miles, turn left on 8000 Road, head northerly approximately 2.5 miles, cross the West Fork Millicoma River, turn right on the 7600 Road, head northerly approximately 2.5 miles, turn right on 7640 Road, head easterly approximately 0.5 mile to Area 6.
  - (See Vicinity Map/Exhibit A).

**12. Projects:**

Project No. 1: Improve roads and landings as indicated in Exhibits “A”, “B”, “C” and “D” of this contract.

## NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							
			By County and Fund						Total Vols.	Vol. per Acre
			Coos			Douglas				
Area	Spec	CSL	BOF	Total	CSL	BOF	Total			
1	D-fir			0	19		19	19	0.7	
	Hem			0	78		78	78	3.0	
2	D-fir			0	15		15	15	1.8	
	Hem			0	17		17	17	2.0	
3	D-fir	682		682			0	682	5.7	
4	D-fir	54		54			0	54	3.9	
5	D-fir			0	498		498	498	10.3	
6	D-fir	23		23			0	23	2.5	
<b>TOTALS</b>				759	0	759	627	0	627	1386

**TOTAL SALE VOLUME BY SPECIES**

Douglas-fir    1291 MBF  
Hemlock        95 MBF  
RedCedar      0 MBF  
Hardwoods     0 MBF

Report by: R Fields

Date: 10/17/2002

Unit For. Man. P. Krum 11/20/02  
Date

Asst. Dist. For. Greg Kreininger 12/28/2002  
Date

**UTILITY VOLUME NOT SHOWN TO PROVIDE FOR RETENTION OF DOWN LOGS  
NO INGROWTH INCLUDED**

**ACREAGE BY COUNTY (to nearest acre)**

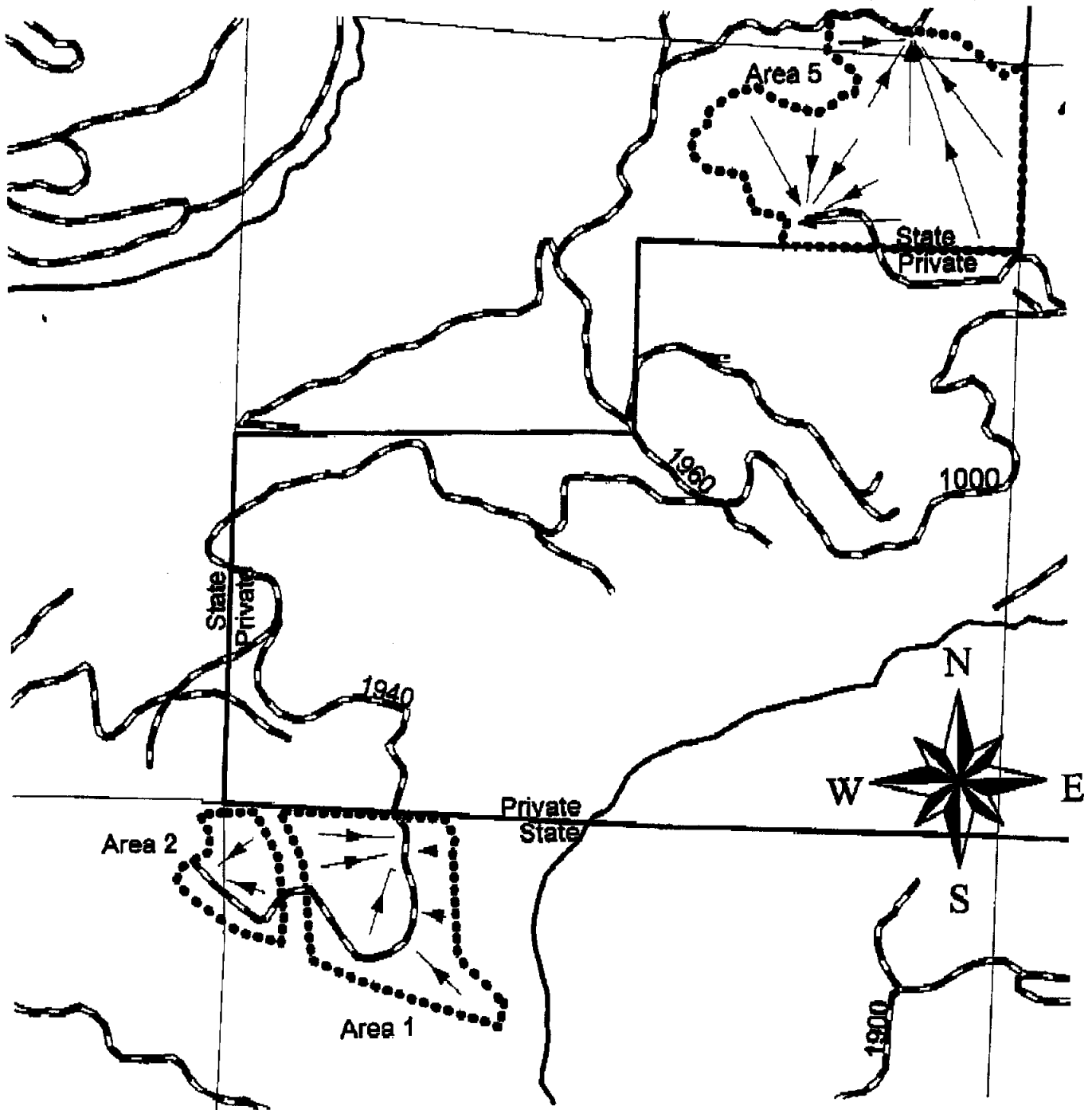
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer cc	Conifer pc	Hard wood	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods	
1							1	24					25
2								8					8
3	7	113											120
4		14											14
5							2	46					48
6		9											9
<b>SUM</b>	<b>7</b>	<b>136</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>224</b>

cc- clearcut








pc- partial cut

BOF - Board of Forestry

CSL - Common School Land



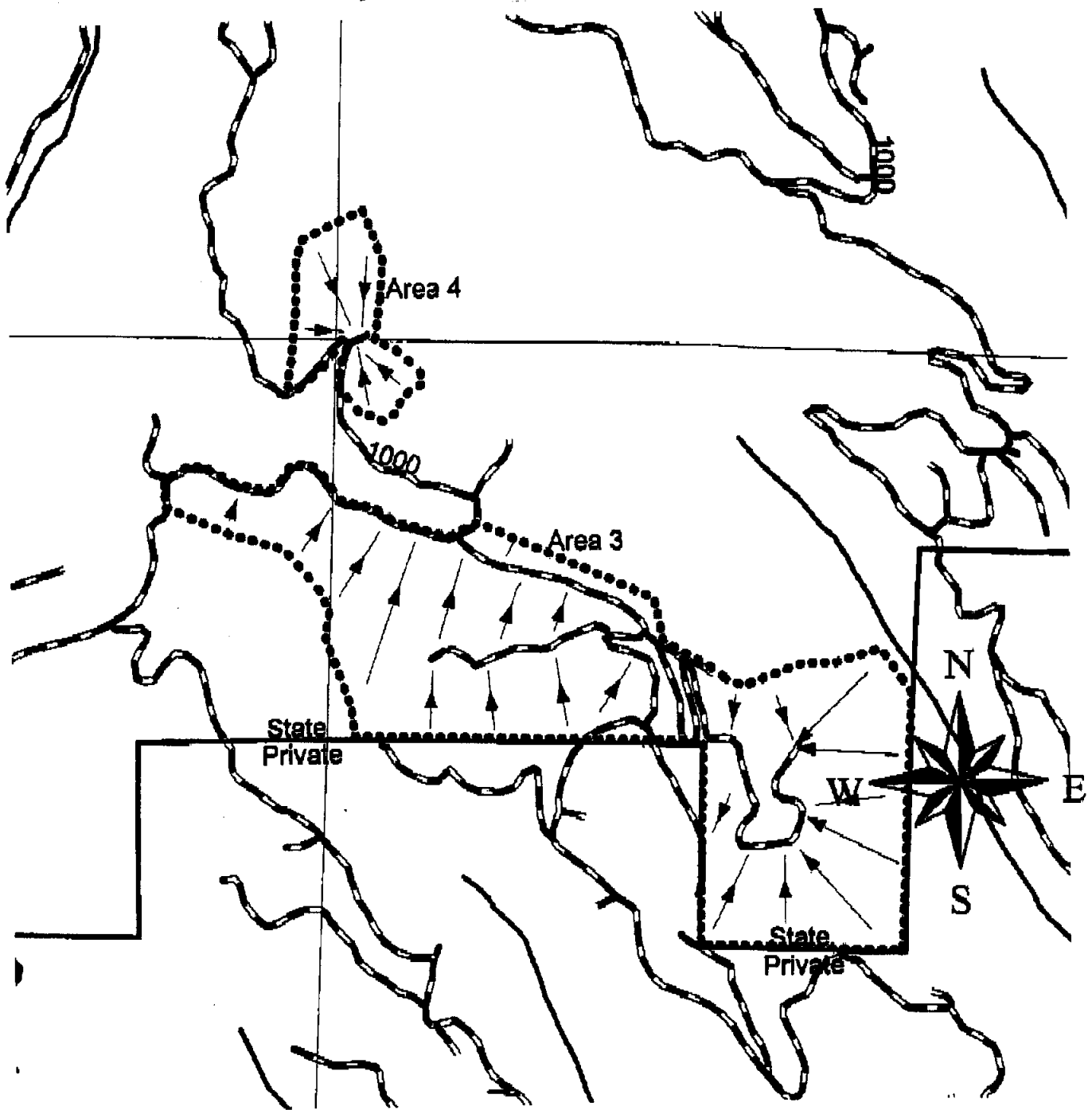
**Sixteen Loon Thinning Logging Plan**  
**Portions of Sections 11, 14, 22 and 23; T23S, R10W, W.M.**  
**Douglas County**  
**Portions of Sections 4, 29, 30, 31 and 32; T23S, R10W, W.M.**  
**Coos County**

-  **General Yarding Plan**
-  **Theme9.shp**
-  **Elliott Forest Boundary**
-  **Sale Unit Boundary**
-  **Section Lines**
-  **Type F Streams**
-  **Roads**



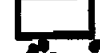




Approximate Gross Acres

Area 1	29 acres
Area 2	10 acres
Area 3	138 acres
Area 4	16 acres
Area 5	54 acres
Area 6	21 acres



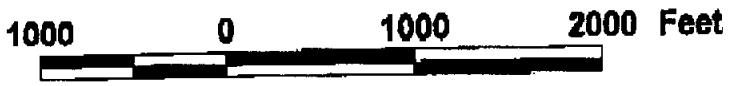


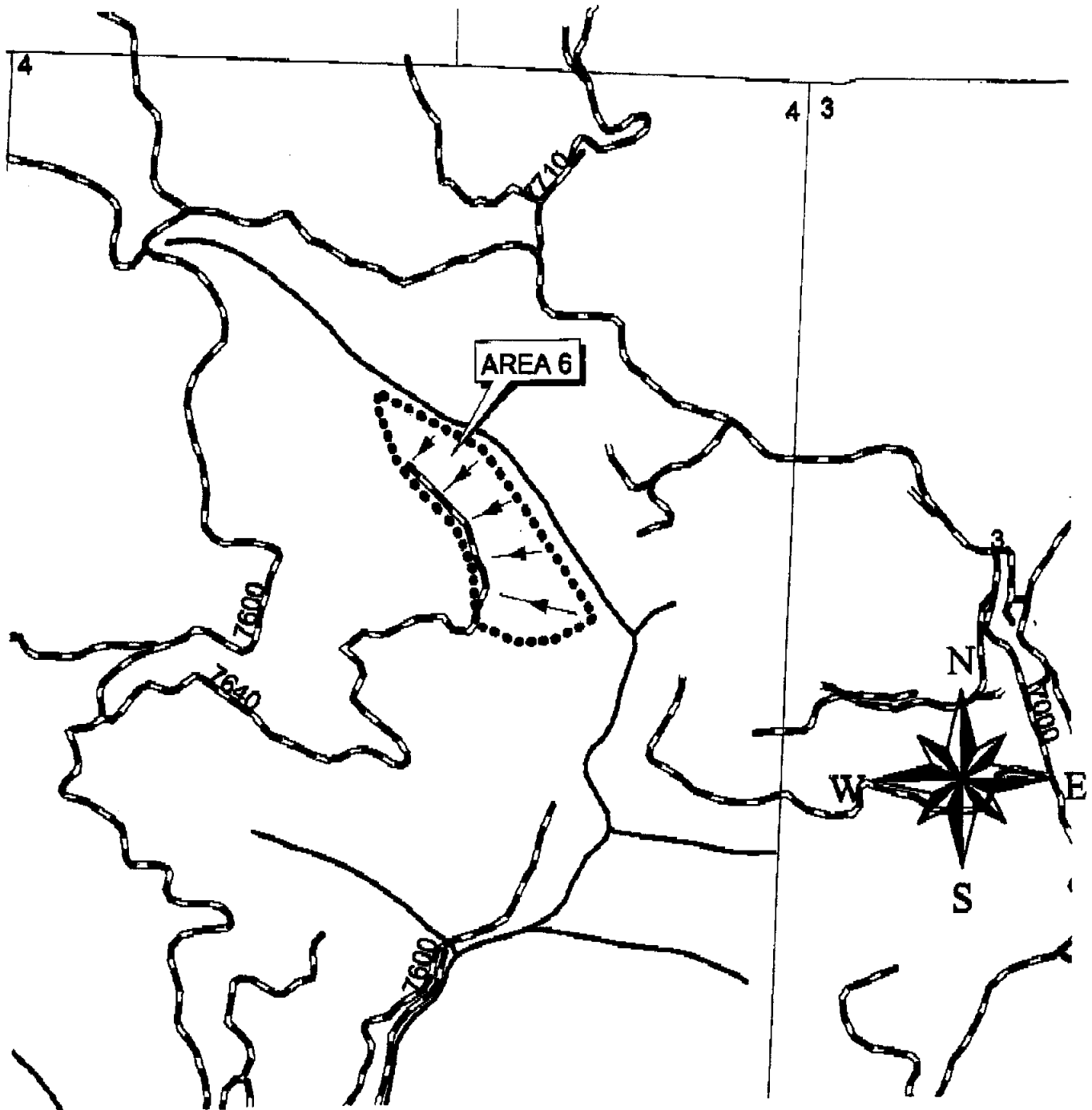
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Approximate Gross Acres

Area 1	29 acres
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**Sixteen Loon Thinning Logging Plan**  
**Portions of Sections 11, 14, 22 and 23; T23S, R10W, W.M.**  
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-  **Roads**

Approximate Gross Acres

Area 1	28 acres
Area 2	10 acres
Area 3	138 acres
Area 4	16 acres
Area 5	54 acres
Area 6	21 acres





## WRITTEN PLAN SIXTEEN LOONS THINNING

This written plan outlines the measures to be taken to comply with the Forest Practices Act (ORS 629-24-113 section 1A) and the Elliott State Forest's Habitat Conservation Plan. It specifies timber harvest operation restrictions and protection required for the Baker Creek (Areas 1 & 2), West Fork Glenn Creek (Area 3) and Cougar Creek (Area 6) Riparian Management Areas adjacent to or within certain sale areas of this timber sale. These measures are as follows:

### LAYOUT

The unit harvest boundaries marked on the ground by STATE personnel with timber sale boundary posters, red flagging and red paint at about 100 feet measured slope distance from the edge of the active channel or as shown on the Exhibit 'A' for this timber sale. It is intended that these locations retain all the FPA required components of a 'Type F' stream RMA.

### HARVESTING

The Riparian Management Areas are 'no-harvest' locations. Fell trees parallel to or away from the RMA so as to minimize the potential of logs entering the RMA. Skyline or cable yarding corridors are allowed within the RMA, but no material within 100 feet of the stream or within the posted RMA will be removed except as designated by STATE. The yarding roads shall be a maximum of 25 feet in width and a minimum of 75 feet apart where they extend over or through the buffer. Full suspension over the RMA is required; cables will not be lowered into the RMA during the yarding cycle and will be pulled out of the residual timber prior to rigging the next corridor or road.

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O.D.F. REPRESENTATIVE

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PURCHASER REPRESENTATIVE

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OPERATOR REPRESENTATIVE

APPROVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

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TITLE