



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Middle Elk Sale 341-05-47

District: Coos

Date: 11/23/04

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$703,604.56	\$62,469.96	\$766,074.52
		Project Work	(\$24,002.00)
		Advertised Value	\$742,072.52



Timber Sale Appraisal Timber Description Middle Elk Sale 341-05-47

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: Portions of Sections 25 & 36, T23S, R11W, W.M., and Section 30, T23S, R10W, W.M., Coos County, Oregon.

Date: 11/23/04

Stand Stocking: 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	12	0	95
Western Hemlock / Fir	13	0	95
Alder (Red)	11	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
2S	172	112	9	293
3S	837	244	27	1,108
4S	402	33	150	585
Total	1,411	389	186	1,986

Comments: Pond Values Used: 3rd Quarter 2004 + Local Pond Values.



Timber Sale Appraisal

Logging Conditions

Middle Elk

Sale 341-05-47

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	100.00%
	Western Hemlock / Fir	100.00%
	Alder (Red)	100.00%
Yarding Distance:	Long (1,500 ft)	Downhill Yarding: No
Logging System:	Cable: Large Tower >=70	Process: Manual Delimiting
Tree Size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
Loads/Day:	9	Bd. Ft./Load: 4,000
Cost/MBF:	\$98.61	
Machines:		
	Log Loader (A)	
	Tower Yarder (Large)	



Timber Sale Appraisal

Logging Costs

Middle Elk

Sale 341-05-47

"STEWARDSHIP IN FORESTRY"

Date: 11/23/04

Operating Seasons: 1.5

Profit & Risk: 10%

Project Costs: \$24,002

Other Costs (P/R): \$18,601

Slash Disposal: \$0

Other Costs: \$0

Road Maintenance: \$0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
2.5	0.0	0.0	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	4.0
Alder (Red)	\$0.00	3.0	4.0

Local Pond Values

Date	Species	Grade	Value
11/10/04	Alder (Red)	2S	\$600.00
11/10/04	Alder (Red)	3S	\$565.00
11/10/04	Alder (Red)	4S	\$475.00



Timber Sale Appraisal Logging Costs Breakdown Middle Elk Sale 341-05-47

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	98.61	98.61	98.61
Road Maintenance	0.79	0.79	0.83
Fire Protection	2.26	2.26	0.00
Hauling	40.37	40.37	42.61
Other (P/R appl.)	10.33	10.33	0.00
Profit & Risk	15.24	15.24	14.20
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	0.00	0.00	0.00
Total	169.60	169.60	158.25

Amortization	0.00	0.00	0.00
Pond Value	597.87	424.91	494.11
Stumpage	428.27	255.31	335.86
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Middle Elk Sale 341-05-47

Amortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
MBF	0.00	0.00	0.00
Value	0.00	0.00	0.00
Total	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
MBF	1,411.00	389.00	186.00
Value	428.27	255.31	335.86
Total	604,288.97	99,315.59	62,469.96

Gross Timber Sale Value

Recovery \$766,074.52

Prepared by: Gloria Clary

Date: 11/23/04

District: Coos

Phone: (541) 267-1757

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Middle Elk

Additional "Other Cost" with additional profit and risk to be added:

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Felling				
Felling of unmerch material	MBF	0	\$ 1.00	\$ -
Directional Felling	MBF	0	\$ 2.00	\$ -
Yarding and Loading				
Artificial guyline support	anchor	4	\$ 500.00	\$ 2,000.00
Brand and paint logs	MBF	2251	\$ 1.00	\$ 2,251.00
Loader time for firewood stacking	Hours	8	\$ 75.00	\$ 600.00
Snag Creation				
Tree Topping	Trees	36	\$ 100.00	\$ 3,600.00
Miscellaneous Costs				
Log Placement in Stream	Crossings	14	\$ 582.15	\$ 8,150.00
Additional Fire Equipment	Seasons	2	\$ 1,000.00	\$ 2,000.00
Maintenance rock per section 5	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	0	\$ 110.00	\$ -
Total additional "Other Cost" with additional profit and risk to be added				\$ 18,601.00

Log Placement in Stream Calculation
Middle Elk

Volume to be taken from Area I, II, and III and put into two Elk Creek tributaries, one between Area I and II and the other at the bottom of Area III.

Area I and II: Fell trees in the timber sale boundary and place them in Type F stream channel by way of yarding. Where skyline corridors cross stream reaches, place logs within the active channel to provide for instream habitat. Total reach is 1800 feet. Total logs to be placed is approximately 18-24.

Area III: Fell trees in the timber sale boundary and place them in Type F stream channel by way of yarding. Where skyline corridors cross stream reaches, place logs within the active channel to provide for instream habitat. Total reach is 1800 feet. Total logs to be placed is approximately 18-24.

Area IV: No work identified.

Labor estimate:

14 crossings @	2.5 hrs/crossing	35 hours
35 hours yarder/skycar @	150 \$/hour	\$ 5,250
140 hours 4 man rigging crew @	20 \$/man hour	\$ 2,800
2.5 hours felling @	40 \$/hour	\$ 100
	Total Labor	<u>\$ 8,150</u>

**SUMMARY OF CONSTRUCTION COST
Middle Elk**

Project No. 1: Road Construction

Points: C to F Length: 750' Type: 12' subgrade w/o ditch

Clearing and Grubbing

0.4 acres at \$695.00 \$ per acre = \$278.00

Total clearing and grubbing \$278.00

Excavation

Cat excavation	<u>10</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$950.00</u>
Laborer	<u>10</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$300.00</u>

Total Excavation \$1,250.00

Grade Road Surface

1 hrs at \$75.00 per hour \$75.00

Total Grading \$75.00

Project 1 Total \$1,603.00

Move-in

Equipment	Miles	Mileage Factor	Equipment Allowance	Total	
Excavator	35*	0.74	\$533.00	\$394.42	*to quarry site at 6.5 mi on 9000 Rd
D7 Cat	30	0.66	\$387.00	\$255.42	
Grader	30	0.66	\$241.00	\$159.06	
Dump Truck	30	0.66	\$144.00	\$95.04	
Excavator				\$132.00	from quarry site to project site

Total Move-in \$1,035.94

Move Between Areas

Excavator	<u>1.5</u>	hrs at	<u>\$110.00</u>	per hour	<u>\$165.00</u>
Cat	<u>1.5</u>	hrs at	<u>\$95.00</u>	per hour	<u>\$142.50</u>
Grader	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
Dump Truck	<u>1</u>	hrs at	<u>\$65.00</u>	per hour	<u>\$65.00</u>

Total Move-Between \$447.50

Project 1 Cost \$3,087.00

**SUMMARY OF CONSTRUCTION COST
Middle Elk**

Project 2A: Road Improvement

Points: A to B Length: 740' Type: 14' subgrade w/o ditch

Excavation

Excavator for reconstruction and slide removal	<u>15</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$1,650.00</u>
Cat time	<u>15</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$1,425.00</u>
Laborer	<u>15</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$450.00</u>
Dump Truck	<u>15</u>	hrs at	<u>\$65.00</u>	per hr	<u>\$975.00</u>
Total Excavation					\$4,500.00

Grade Road Surface

smooth road surface	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
Total Grading					\$75.00

Project 2A Total \$4,575.00

Project 2B: Road Improvement

Points: B to C Length: 950' Type: 14' subgrade w/o ditch

Excavation

Excavator time	<u>10</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$1,100.00</u>
Cat time	<u>10</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$950.00</u>
Laborer	<u>10</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$300.00</u>
Total Excavation					\$2,350.00

Culvert Installation

24" pipe (pipe material only)	<u>40</u>	feet at	<u>\$11.00</u>	per foot	<u>\$440.00</u>
24" band	<u>1</u>	band at	<u>\$15.00</u>	per band	<u>\$15.00</u>
Load boulders at pit site (6.5 mi on 9000)	<u>6</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$660.00</u>
Dump Truck to haul 150 yds boulders	<u>6</u>	hrs at	<u>\$65.00</u>	per hr	<u>\$390.00</u>
Total Culvert Installation					\$1,505.00

Grade Road Surface

smooth road surface	<u>2</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$150.00</u>
Total Grading					\$150.00

Project 2B Total \$4,005.00

**SUMMARY OF CONSTRUCTION COST
Middle Elk**

Project 2C: Road Improvement

Points: C to E Length: 985' Type: 14' subgrade w/o ditch

Excavation

Cat time for road and landing at Point D	<u>5</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$475.00</u>
Laborer	<u>5</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$150.00</u>

Total Excavation \$625.00

Grade Road Surface

smooth road surface	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
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Total Grading \$75.00

Project 2C Total \$700.00

Project 2D: Road Improvement

Points: G Length: n/a Type: n/a

Excavation

Excavator time to remove fill and culvert and to re-establish draw	<u>2</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$220.00</u>
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Total Excavation \$220.00

Project 2D Total \$220.00

Project 2E: Road Improvement

Points: H to J Length: 435' Type: 14' subgrade w/o ditch

Excavation

Cat time	<u>8</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$760.00</u>
Laborer	<u>8</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$240.00</u>

Total Excavation \$1,000.00

Grade Road Surface

	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
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Total Grading \$75.00

Project 2E Total \$1,075.00

Project 2F: Road Improvement

Points: J to K Length: 5566' Type: 14' subgrade w/o ditch

Excavation

Excavator time	<u>25</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$2,750.00</u>
Cat time	<u>25</u>	hrs at	<u>\$95.00</u>	per hr	<u>\$2,375.00</u>

Total Excavation \$5,125.00

**SUMMARY OF CONSTRUCTION COST
Middle Elk**

Grade Road Surface

smooth road surface 4 hrs at \$75.00 per hour \$300.00

Total Grading \$300.00

Project 2F Total **\$5,425.00**

Project 2G: Road Improvement

Points: K to L Length: 600' Type: 14' subgrade w/o ditch

Excavation

Excavator time for pullback and widening 10 hrs at \$110.00 per hr \$1,100.00
and digging stumps

Cat time for landing 10 hrs at \$95.00 per hr \$950.00

Laborer 10 hrs at \$30.00 per hr \$300.00

Dump Truck to haul material to Pt K 10 hrs at \$65.00 per hr \$650.00

Total Excavation \$3,000.00

Grade Road Surface

smooth road surface 1 hrs at \$75.00 per hour \$75.00

Total Grading \$75.00

Project 2G Total **\$3,075.00**

Project 2H: Swing Road Improvement

Points: L to M Length: 200' Type: swing road

Excavation

Cat time for road and landing 3 hrs at \$95.00 per hr \$285.00

Total Excavation \$285.00

Project 2H Total **\$285.00**

Project 2I: Landing Improvement

Points: N Length: n/a Type: n/a

Excavation

Excavator to dig stumps 4 hrs at \$110.00 per hr \$440.00

Cat time to spread material from Pt O 4 hrs at \$95.00 per hr \$380.00

Laborer 4 hrs at \$30.00 per hr \$120.00

Total Excavation \$940.00

Project 2I Total **\$940.00**

**SUMMARY OF CONSTRUCTION COST
Middle Elk**

Project 2J: Landing Improvement

Points: 0 Length: n/a Type: n/a

Excavation

Excavator (pick up piles on edge of land.)	<u>3</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$330.00</u>
Laborer	<u>3</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$90.00</u>
Dump Truck to haul material to Pt N	<u>3</u>	hrs at	<u>\$65.00</u>	per hr	<u>\$195.00</u>

Total Excavation \$615.00

Project 2J Total \$615.00

Project 2 Cost \$20,915.00

Total Project Costs \$24,002.00

TIMBER SALE SUMMARY

Middle Elk

1. **Type of sale:** Final harvest; Recovery, Sealed Bid.
2. **Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% CSL; 100% Coos County.
4. **Sale Acreage:** The total sale area is 70 net acres. Grouped green trees and buffer areas are posted outside the sale area and are not included in the net acreage calculation. The acreage was determined using orthophoto imagery on the ARCVIEW Geographic Information System program.
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	-----	-----	12.2 %	59.3 %	28.5 %
Red Alder	-----	-----	5.1 %	14.6 %	80.3 %
Western Red Cedar	-----	-----	-----	-----	-----
Western Hemlock	-----	-----	28.9 %	62.8 %	8.3 %
Big Leaf Maple	-----	-----	-----	-----	-----

7. **Cruise:** The unit was variable plot cruised using the Big BAF cruise design, which consisted of 31 nested plots. Each plot consists of both a full 20 BAF count plot and a full 160 BAF measure plot. The 20 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 20 BAF plot was then used to select hardwoods and minor species to cruise and the 160 BAF plot to select conifer trees. Selected trees were cruised for diameter at breast height, height, grade and defect. Fifty-one conifer Big BAF trees were cruised for diameter, height, grade and defect. The cruise was analyzed using the SuperACE cruising program.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE %
D4H	Total Height	Conifer: 16' Hardwood: 16'	Estimated or measured on all trees	49	11

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft²/ac)	BF per acre
Douglas-fir	12	239	186	20,157
Red Alder	11	79	58	2,657
Western Cedar	--	--	--	--
Western Hemlock	13	45	45	5,557

C. Green Tree Retention Summary: Most green trees were posted outside of the timber sale, except scattered trees which will be removed from the cruise. These scattered trees are marked with a "W" in red.

8. Timber Description: The timber sale is a moderately stocked stand of approximately 38 year old second growth Douglas-fir, of good to average quality, with red alder and western hemlock in the understory. Conifers range from 70 to 110 feet tall while hardwoods are about 20 to 50 feet.

9. Topography: The unit ranges from 10% to 70% slope. There are a few benches as well as steep drainages.

10. Logging Method: The sale will be cable logged mostly uphill with single-end suspension over the unit; full suspension will be required over designated streams and RMAs. A motorized carriage will be required to obtain the necessary suspension. Tailtrees may need to be placed for yarding the sale area as approved in the operations plan.

11. Access: From Coos Bay, proceed east on Coos River Highway for 14 miles to 1000 Rd. (Marlow Creek Rd.) and then proceed for 10 ½ miles to 9000 Road and then 2 ½ miles to Project Point A.

12. Projects:

Project No. 1: Road and Landing Construction

Project No. 2: Road Improvement

Project No. 3: Landing and Road Rocking

NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)								Vol. per Acre
			By County and Fund						Total Vols.		
Area	Spec		Coos			Douglas					
		CSL	BOF	Total	CSL	BOF	Total				
I, II	D-fir		1411		1411			0	1411	20.157	
III, IV	Hdwd		186		186			0	186	2.657	
	Cedar		0		0			0	0	0.000	
	Hemlock		389		389			0	389	5.557	
TOTALS			1986	0	1986	0	0	0	1986		

TOTAL SALE VOLUME BY SPECIES

Douglas-fir	1411	MBF
Hemlock	186	MBF
Cedar	0	MBF
Hardwoods	389	MBF
Total	1986	MBF

Report by: Middle Elk

Date: 10/11/2004

Unit For. Norman Kline Oct 11, 04
Date

Asst. Dist. For. Greg Kreimeyer 11/2/2004
Date

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

ACREAGE BY COUNTY (to nearest acre)

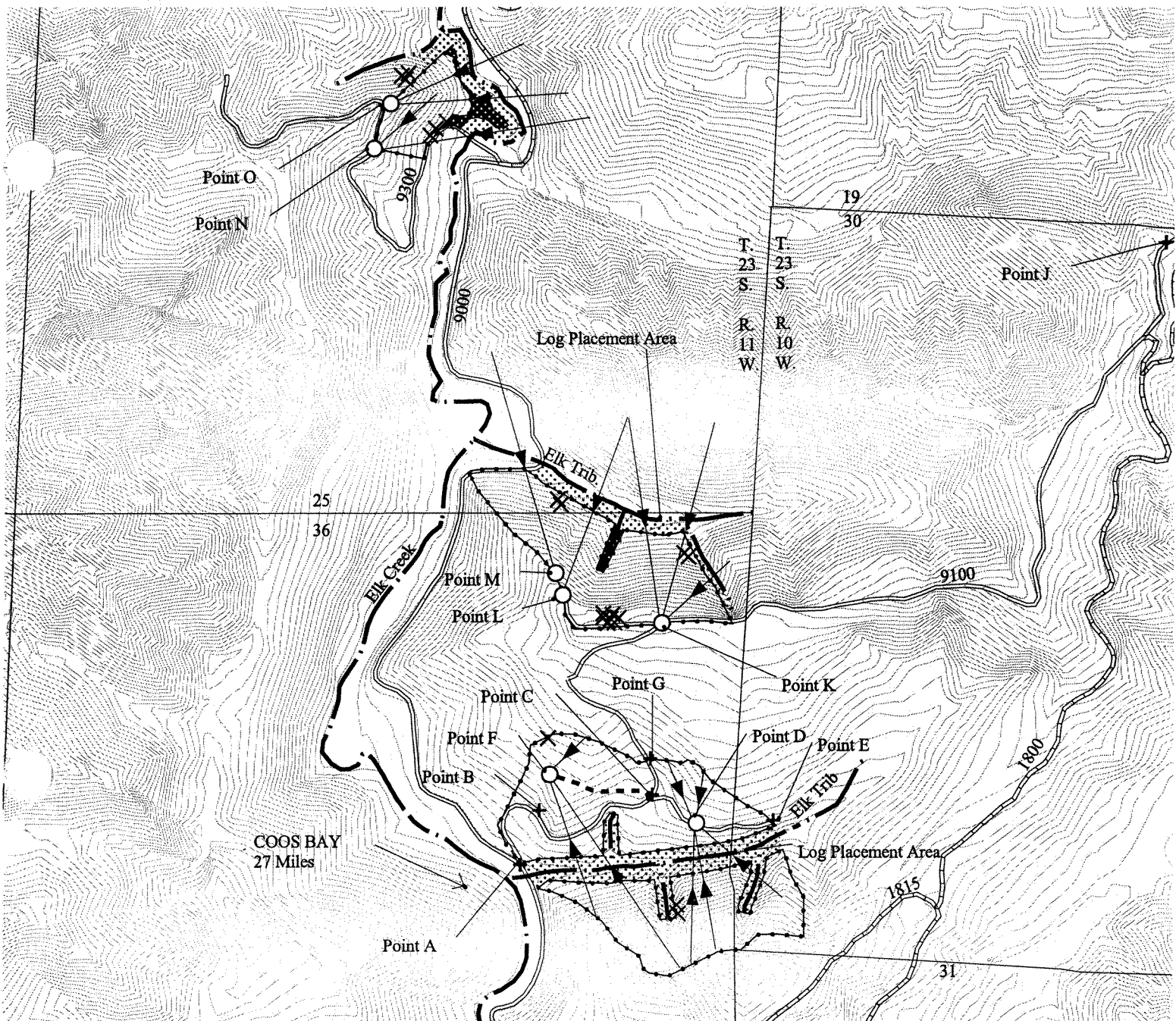
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
cc	pc	cc		pc	cc		pc	cc		pc			
I	24												24
II	18												18
III	22												22
IV	6												6
SUM	70	0	0	0	0	0	0	0	0	0	0	0	70

cc- clearcut

pc- partial cut

BOF - Board of Forestry

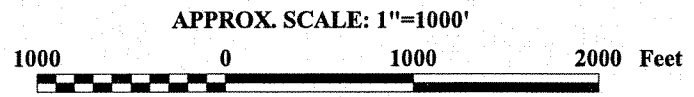
CSL - Common School Land



- LEGEND**
- Landing
 - + Project Point
 - ▬ Posted Sale Boundary
 - Roads**
 - ▬ State Maintained Roads
 - ▬ Purchaser Maintained Roads
 - ▬ New Road Construction
 - ▬ Yarding Corridor
 - Streams**
 - ▬ Type F Perennial
 - ▬ Type N Perennial
 - ▬ Type N Seasonal
 - × Green Tree Retention
 - Green Tree Retention Group
 - ▬ Stream Buffer
 - Contours: 20 Foot

LOGGING PLAN

MIDDLE ELK
 341-05-47
 PORTIONS OF SECTIONS 25 AND 36
 T23S, R11W & SECTION 30, T23S, R10W
 COOS COUNTY, OREGON
 APPROXIMATELY 70 NET ACRES



WRITTEN PLAN

SALE NAME: Middle Elk

LOCATION: Portions of Sections 25 and 36, T23S R11W and Section 30, T23S, R10W, W.M. Coos County, OR.
97420

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Or.

CONTRACT PURCHASER: _____

NOTIFICATION NO: _____

SITUATION AND PROTECTED RESOURCE

The protected resource is a tributary of Elk Creek which is a Type F stream.

LAYOUT

Landings have been provided to enable best possible deflection for suspension of logs while yarding the sale area.

STREAM BUFFER

A minimum 100-foot slope distance no harvest buffer has been posted on the ground in Areas I, II, III and IV.

FELLING AND BUCKING

1. Trees shall be directionally felled parallel to or away from stream riparian management areas (RMA's) as feasible.
2. High stumps shall be left as needed to minimize accumulation of logs in stream channels.

YARDING

1. Operator will use a machine and logging system capable of fully suspending logs through the Type F buffer.
2. Operator will fully suspend logs when sufficient deflection is available.

OPERATIONS PLAN.

Purchaser shall attach a yarding plan indicating landing locations, machinery and procedures to be used to obtain adequate suspension in the sale area and to minimize impacts during the felling process.

PREPARED BY: Norma Kline,
Timber Management Unit Forester
September 22, 2004

PURCHASER REPRESENTATIVE

DATE: _____

OPERATOR REPRESENTATIVE (if listed on notification)

DATE: _____