



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Blue Millicoma Thin Sale 341-04-47

District: Coos

Date: 10/7/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$87,535.18	\$1,407.60	\$88,942.78
		Project Work	(\$18,329.18)
		Advertised Value	\$70,613.60



Timber Sale Appraisal Timber Description Blue Millicoma Thin Sale 341-04-47

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: Portions of Sections 8, 9, 15, and 16, T24S, R11W, W.M. Coos County

Date: 10/7/03

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	10	0	95
Western Hemlock / Fir	10	0	90
Alder (Red)	9	0	85

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
2S	14	0	0	14
3S	432	4	0	436
4S	273	11	0	284
CR 12"	0	0	10	10
Total	719	15	10	744

Comments: Pond Values Used: 3rd Quarter 2003

148 Net Acres of automark Thinning



Timber Sale Appraisal

Logging Conditions

Blue Millicoma Thin

Sale 341-04-47

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	82.00%	
	Alder (Red)	82.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Small Tower <=40		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	3		Bd. Ft./Load: 3,500
Cost/MBF:	\$264.07		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Small)		
Combination#: 2	Douglas - Fir	18.00%	
	Alder (Red)	18.00%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: Yes
Logging System:	Wheel Skidder		Process: Manual Falling/Delimiting
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	4		Bd. Ft./Load: 3,500
Cost/MBF:	\$214.34		
Machines:			
	Log Loader (B)		
	Tire Skidder		
Combination#: 3	Western Hemlock / Fir	82.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Small Tower <=40		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	3		Bd. Ft./Load: 3,500
Cost/MBF:	\$158.44		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Small)		
Combination#: 4	Western Hemlock / Fir	18.00%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: Yes
Logging System:	Wheel Skidder		Process: Manual Falling/Delimiting
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	4		Bd. Ft./Load: 3,500
Cost/MBF:	\$142.89		
Machines:			
	Log Loader (B)		
	Tire Skidder		



Timber Sale Appraisal

Logging Costs

Blue Millicoma Thin

Sale 341-04-47

"STEWARDSHIP IN FORESTRY"

Date: 10/7/03

Operating Seasons: 1.0

Profit & Risk: 18%

Project Costs: \$18,329

Other Costs (P/R): \$1,119

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
2.0	0.5	0.0	0.0

Road Maintenance: \$0.00

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	3.5
Western Hemlock / Fir	\$0.00	3.0	3.5
Alder (Red)	\$0.00	3.0	2.5



Timber Sale Appraisal Logging Costs Breakdown Blue Millicoma Thin Sale 341-04-47

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	255.12	155.64	255.12
Road Maintenance	0.91	0.96	1.01
Fire Protection	3.64	3.64	3.64
Hauling	46.11	48.67	60.12
Other (P/R appl.)	1.50	1.50	1.50
Profit & Risk	55.31	37.87	57.85
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	0.00
Other	0.00	0.00	0.00
Total	364.59	250.28	379.24

Amortization	0.00	0.00	0.00
Pond Value	484.61	333.00	520.00
Stumpage	120.02	82.72	140.76
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary

Blue Millicoma Thin Sale 341-04-47

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	719.00	15.00	10.00
Value	120.02	82.72	140.76
Total	86,294.38	1,240.80	1,407.60

Gross Timber Sale Value

Recovery \$88,942.78

Prepared by: Chris Rudd

Date: 10/7/03

District: Coos

Phone: (541) 267-1756

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Blue Millicoma Thin

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>
Brand and paint logs	MBF	744	\$ 1.00	\$ 744.00
Loader time for firewood stacking	Hours	5	\$ 75.00	\$ 375.00

Total additional "Other Cost" with additional profit and risk to be added **\$ 1,119.00**

**SUMMARY OF CONSTRUCTION COST
Blue Millicoma Thin**

Project 1A: Road Improvement

Points: Type: Length:
A to B 14' no ditch 2375'

Excavation

Cat time to remove tank trap and waterbars 2 hrs at \$95.00 per hr \$190.00

Total clearing and grubbing \$190.00

Grade Road Surface

Smooth road surface 1 hrs at \$75.00 per hr \$75.00

Total Grading \$75.00

Project 1A Cost \$265.00

Project 1B: Road Improvement

Points: Type: Length:
A to C 14' no ditch 5344'

Excavation

Cat time for improvements 5 hrs at \$95.00 per hr \$475.00

Total Excavation \$475.00

Grade Road Surface

Smooth road surface 2 hrs at \$75.00 per hr \$150.00

Total Grading \$150.00

Project 1B Cost \$625.00

Project 1C: Road Improvement

Points: Type: Length:
D to E 14' no ditch 1615'

Clearing and Grubbing

Saw time to remove brush and trees 5 hrs at \$30.00 per hr \$150.00

Total clearing and grubbing \$150.00

Excavation

Cat time for improvements 5 hrs at \$95.00 per hr \$475.00

Excavator for improvements 2 hrs at \$110.00 per hr \$220.00

Total Excavation \$695.00

**SUMMARY OF CONSTRUCTION COST
Blue Millicoma Thin**

Grade Road Surface

Smooth road surface 1	hrs at \$75.00	per hr \$75.00
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Total Grading \$75.00

Project 1C Cost **\$920.00**

Project 1D: Road Improvement

Points:	Type:	Length:
F to G	14' no ditch	5445'

Clearing and Grubbing

Clear road side brush 20	hrs at \$30.00	per hr \$600.00
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Total clearing and grubbing \$600.00

Excavation

Excavator for slough removal and loading 20	hrs at \$110.00	per hr \$2,200.00
Cat time for improvements	..... 20	hrs at	..... \$95.00	per hr	..... \$1,900.00
Drill and shoot boulders and outcroppings	..... 20	hrs at	..... \$115.00	per hr	..... \$2,300.00
Laborer	..... 20	hrs at	..... \$30.00	per hr	..... \$600.00

Total Excavation \$7,000.00

Hauling

Dump Truck to haul boulders and fill material to Pt F (Low-water Crossing Improvement) 20	hrs at \$60.00	per hr \$1,200.00
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Total Hauling \$1,200.00

Grade Road Surface

Smooth road surface 3	hrs at \$75.00	per hr \$225.00
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Total Grading \$225.00

Project 1D Cost **\$9,025.00**

Project 1E: Road Improvement

Points:	Type:	Length:
H to I	14' no ditch	2262'

Clearing and Grubbing

Clear road side brush 5	hrs at \$30.00	per hr \$150.00
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Total clearing and grubbing \$150.00

**SUMMARY OF CONSTRUCTION COST
Blue Millicoma Thin**

Excavation

Cat time for improvements 5 hrs at \$95.00 per hr \$475.00

Total Excavation \$475.00

Grade Road Surface

Smooth road surface 1 hrs at \$75.00 per hr \$75.00

Total Grading \$75.00

Project 1E Cost \$700.00

Move-in

Equipment	Miles	Mileage Factor	Equipment Allowance	Total
Excavator	25	0.58	\$533.00	\$309.14
D7 Cat	25	0.58	\$387.00	\$224.46
Grader	25	0.58	\$241.00	\$139.78
Drill & Comp	25	0.58	\$241.00	\$139.78
Dump Truck	25	0.58	\$144.00	\$83.52

Total Move-in \$896.68

Move-Between Areas I & II

Lowboy used to move Excavator, Cat and Drill and Compressor between areas 6 hrs at \$75.00 per hr \$450.00
 Grader move between areas 0.5 hrs at \$75.00 per hr \$37.50
 Dump Truck 0.5 hrs at \$50.00 per hr \$25.00

Total Move-between \$512.50

Project 1 Cost \$12,944.18

Project 2: Low-Water Crossing Improvement

Point: F

Excavation

Excavator for fill and boulder placement and crossing improvement 10 hrs at \$110.00 per hr \$1,100.00
 Drill & Shoot to improve approach 3 hrs at \$115.00 per hr \$345.00

Total Excavation \$1,445.00

**SUMMARY OF CONSTRUCTION COST
Blue Millicoma Thin**

Rocking

2 1/2" - 0" Rock for approaches	160	yds at	\$6.50	per yd	\$1,040.00
1 1/2" - 0" Rock for county road	30	yds at	\$7.00	per yd	\$210.00
Haul Cost for Rock (1.75 hr RT)	190	yds at	\$8.75	per yd	\$1,662.50
Processing (Grader & Dump Truck Comp.)	190	yds at	\$1.00	per yd	\$190.00

Total Rocking \$3,102.50

Project 2 Cost **\$4,547.50**

Project 3: Road Surfacing

Point: J to K

Rocking

1 1/2" - 0" Rock for county road	50	yds at	\$7.00	per yd	\$350.00
Haul Cost for Rock (1.75 hr RT)	50	yds at	\$8.75	per yd	\$437.50
Processing (Grader & Dump Truck Comp.)	50	yds at	\$1.00	per yd	\$50.00

Total Rocking \$837.50

Project 3 Cost **\$837.50**

Total Project Costs **\$18,329.18**

TIMBER SALE SUMMARY

Blue Millicoma Thin

1. **Type of sale:** Thinning, Recovery, Sealed Bid.
2. **Boundary Lines:** Timber sale boundaries have been partially marked. Most boundaries are easily identified by distinct forest type boundaries. Buffer areas are delineated on the Exhibit A. Group selection areas are posted with yellow “area boundary” posters, flagging, and yellow paint. Road right-of-ways are marked with centerline stakes. Project points are marked with orange posters.
3. **Revenue Distribution:** 52% CSL, 48% BOF, 100% Coos County.
4. **Sale Acreage:** Volumes were calculated on net acres excluding from the gross: non-operational areas, stream buffers, low density areas, and alder patches. The total sale area is 282 acres gross and 148 acres net. The acreage was determined from ortho-photography and measuring tools available in the ArcView geographic information system program.
5. **Volume by Species, Fund, and County:** See the attached table labeled “Net Volumes and Acreage”
6. **Grade by MBF Volume (Percent):**

Species	3 Peeler	Special Mill	2 Saw	3 Saw	4 Saw/Camp
Douglas-fir			14 (2%)	432 (60%)	273 (38%)
Hemlock				4 (30%)	11 (70%)
Hardwood	-----	-----	-----	-----	10 (100%)

7. **Cruise:** The sale was cruised in June 1999 as part of a larger inventory project. Parts of seven different stands with 16 to 30 plots were measured within the sale boundary (119 plots total). These stands were then grown forward in the FPS growth and yield model to 2003. The growth was verified for accuracy by measuring the growth increment of 49 Douglas-fir trees throughout the sale area. Acreage was determined with digital ortho-photography and a measuring tool in the ArcView GIS program.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	SE %
D4H	Total Height	Conifer: 16' Hardwood: 4'	Estimated or measured on all trees	5.7%-13.1%

B. Summary of Cut Trees: (Gross Volume)

Cut vs. Residual

Area	Treatment	Vegcode	RD	BA	Diam	BF/a	Net Acres	DFC/Ac	Tot DFC
1	Cut B	1601	25	74	9	4,174	9	4,174	37,566
	Residual		32	100	10	12,147			
1	Cut B	1640	13	40	9.3	3,580	39	3,580	139,620
	Residual		34	106	9.8	11,408			
1	Cut A	1651	15	49	11	5,911	16	5,911	94,576
	Residual		31	115	13.6	14,683			
1	Cut A	1672	9	30	10.4	3,763	12	3,763	45,156
	Residual		30	119	16	18,596			
1	Cut B	1673	10	35	11.4	3,598	5	3,598	14,392
	Residual		25	100	15.5	13,065			
1	Cut B	1805	25	74	9	4,174	15	4,174	62,610
	Residual		32	100	10	12,147			
2	Cut A	1704	18	61	10.7	6,574	52	6,574	374,718
	Residual		31	114	13.1	13,295			
						Total	148		768,638

Treatment area A residual averages: 115 SF BA/acre, 13 inch, and RD 32.

The average diameter of cut and removed trees will be 10.5 inch, and approx. 3500 BF/acre.

Treatment Area B residual averages: 100 SF BA/acre, 10 inch, and RD 32.

The average diameter of cut and removed trees will be 9 inch and 4000 to 6000 BF/acre.

Trees per acre will vary depending on the unit.

8. **Timber Description:** The timber sale is stocked with second growth Douglas-fir ranging from 31 to 46 years. The average diameter of these stands is around 9 - 14 inches. Stocking varies throughout the stand. Only areas that exceed the minimum basal area requirements will be thinned. A small amount of alder will be removed from the sale. Hemlock and cedar are reserved from cutting in Area I except in logging corridors and for safety reasons. There is one group selection area in Area II of the sale.
9. **Topography:** Sale area I is mostly on steep and dissected slopes with intermittent flatter ground. Area II is across the West Fork Millicoma River in a valley with flatter but rolling ground.
10. **Logging Method:** The timber sale is an autemark thinning. The majority of the sale will be cable logged uphill. Portions of Area II under 30% slope will be tractor loggable. Area I will have seasonal restrictions and daily timing restrictions on logging.
11. **Access:** From Allegany, take the County road to the 2000 Road. Area I is 3 miles up the 2000 off the 2190 Road. Area II is accessible by crossing the West Fork Millicoma River approximately 3 miles past the 2000 Road turnoff. Look for the sign at the low water crossing project point location.

12. Projects:

Project No. 1: Road Improvement: Project 1 involves improvement of dirt haul roads, dozer time for tank traps, and roadside brushing. See section 39 for seasonal restrictions applicable to all projects. See section 70 of the contract for the project point locations, the “Summary of Project Costs”, and section 72 credit for project work. The total cost of project work will be credited as project work is completed.

Project No. 2: Low Water Crossing Improvement: The low water crossing will be improved with sandstone rip rap and gravel.

Project No. 3: Road Surfacing: County Road 47, Millicoma Road, will be upgraded with a total of 80 cubic yards of gravel from both project 2 and 3 as directed by State.

NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							Total Vols.	Vol. per Acre
			By County and Fund								
			Coos			Douglas					
Area	Spec		CSL	BOF	Total	CSL	BOF	Total			
I	D-fir		314	64	378			0	378	4	
	Hem		3		3			0	3	0	
	Hdwd		8	2	10			0	10	0.1	
II	D-fir			341	341			0	341	6	
	Hem			12	12			0	12	0.2	
TOTALS			325	419	744	0	0	0	744		

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 719 MBF
Hemlock 15 MBF
Hardwoods 10 MBF
Total 744 MBF

Report by: Blue Millicoma Thin

Date: 07/01/2003

Unit For. Roman Filio July, 03
Date

Asst. Dist. For. Greg Weimayer 7/1/2003
Date

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

ACREAGE BY COUNTY (to nearest acre)

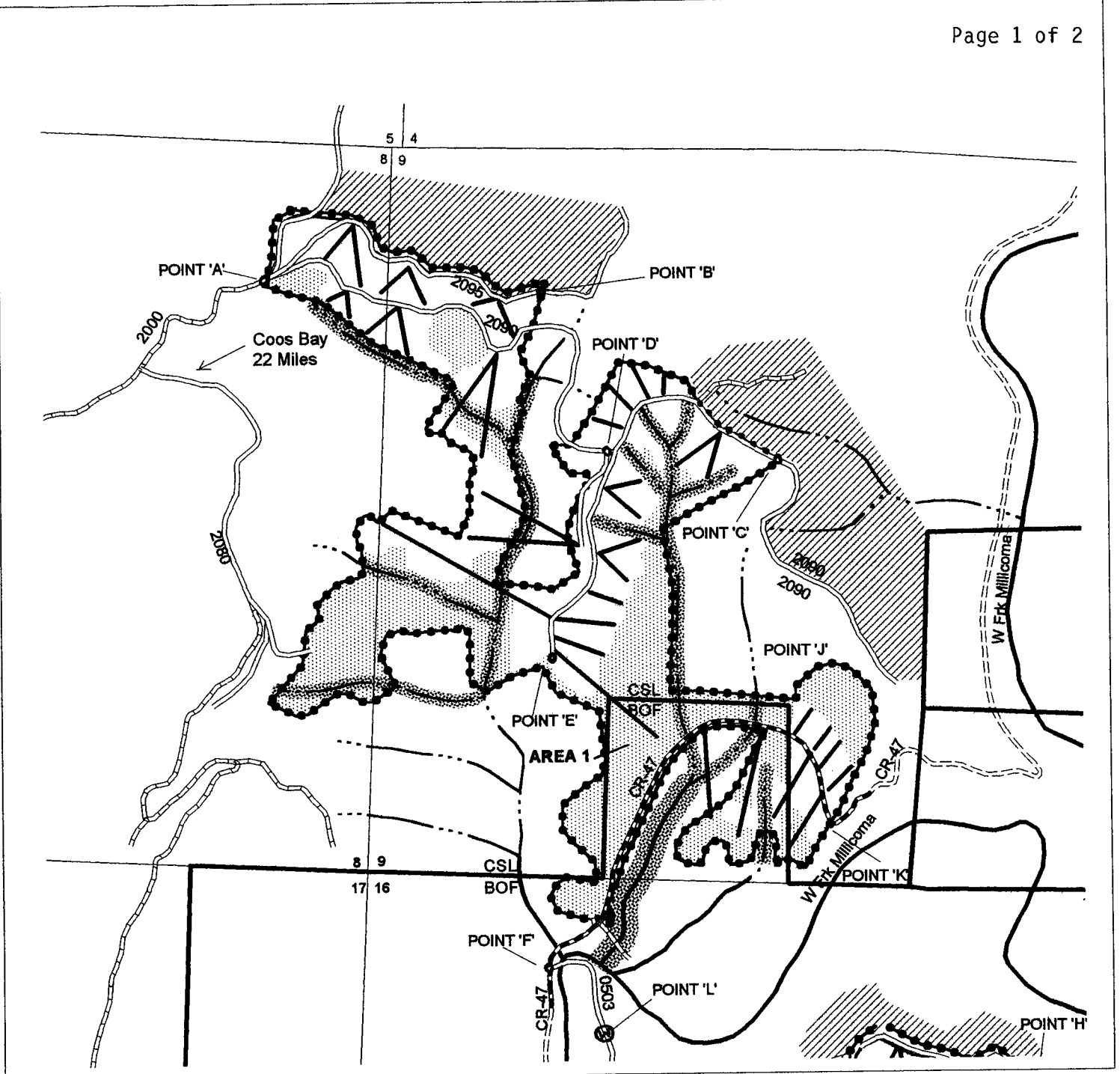
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc	wood	cc	pc	woods	cc	pc	woods	cc	pc	woods	
I		80	0		16	0							96
II					52								52
SUM	0	80	0	0	68	0	0	0	0	0	0	0	148

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land



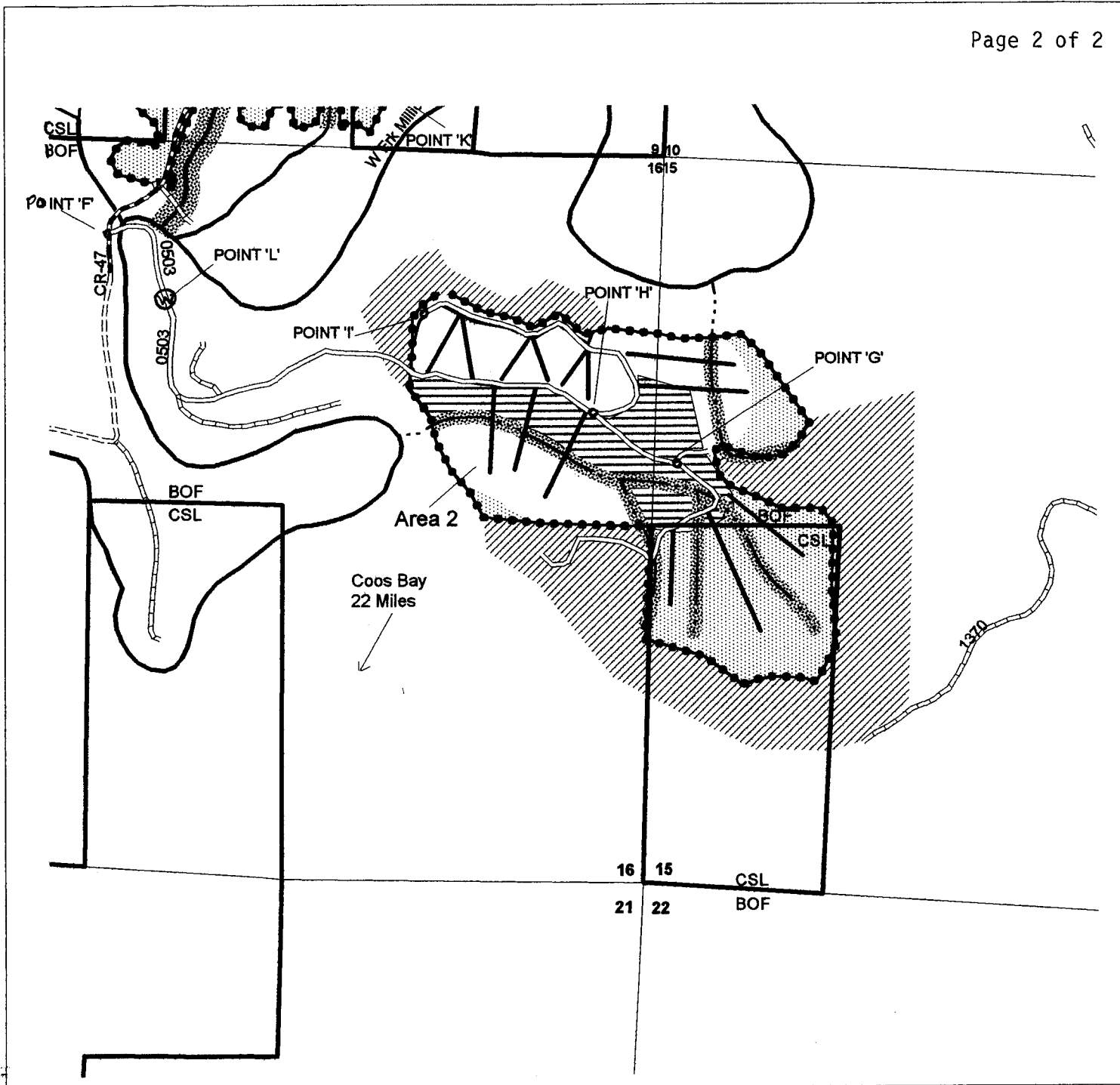
- LEGEND**
- Waste Area
 - Project Points
 - Ownership
 - County Rd Purchaser Maintained
 - County Maintained Road
 - Purchaser Maintained
 - State Maintained
 - Stream Non-fish
 - Stream Fish
 - Logging Corridors
 - Sale Boundary
 - Stream Buffer
 - Tractor Loggable
 - Non-required Thinning
 - Reforestation Area

LOGGING PLAN
 OF TIMBER SALE NO. 341-04-47
 BLUE MILLICOMA THIN
 PORTIONS OF SECTIONS 8, 9, 15, and 16, T24S, R11W, W.M.
 COOS COUNTY, OREGON

Approximate Scale 1"=1000'



Approximate Acreage:		
Area	Sale	Net
1	173	96
2	109	52



- LEGEND**
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 OF TIMBER SALE NO. 341-04-47
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 COOS COUNTY, OREGON

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