



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Cougar Divided Sale 341-06-64

District: Coos

Date: 3/3/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,762,161.67	\$8,888.21	\$1,771,049.88
		Project Work	(\$63,484.00)
		Advertised Value	\$1,707,565.88



Timber Sale Appraisal

Timber Description

Cougar Divided

Sale 341-06-64

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: Portions of section 3 & 4
T23S, R10W, W.M.
Coos & Douglas Counties, OR

Date: 3/3/06

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	22	0	95
Western Hemlock / Fir	15	0	90
Alder (Red)	12	0	100

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
3P	229	0	0	229
SM	270	0	0	270
2S	2,370	93	0	2,463
3S	385	25	0	410
3S 10" - 11"	0	0	13	13
3S 12"+	328	39	0	367
4S	132	48	16	196
Total	3,714	205	29	3,948

Comments: Pond Values Used: 4th Quarter Calendar Year 2005.

Western Red Cedar Price = Pond Value minus Logging Costs.
 $\$715/\text{MBF} = \$800/\text{MBF} - \$85/\text{MBF}$

Hauling Costs Used: System currently uses hauling costs of \$460 daily truck cost. Additional hauling costs added in Other Costs (No P&R) to make equivalent to \$700 daily truck cost.

TOTAL Other Costs (Profit & Risk added): \$42,478.00

Felling -

Directional Felling/Tree Jacking = $\$2/\text{MBF} \times 860\text{MBF} = \$1,720$

Yarding and Loading -

Brand and Paint Logs = $\$1/\text{MBF} \times 3,948 \text{ MBF} = \$3,948$

Cull Sorting/Slash Piling on Landings = $\$125/\text{Landing} \times 8 \text{ Landings} = \$1,000$

Artificial Guy Anchors (Dozer, Skidder) = $\$500/\text{Anchor} \times 14 \text{ Anchors} = \$7,000$

Log Processing at Landing = $\$10/\text{MBF} \times 811\text{MBF} = \$8,110$

Miscellaneous Costs -

Log Placement in Stream = $\$609.29/\text{Crossing} \times 14 \text{ Crossings} = \$8,530$

Additional Fire Equipment = $\$2,000/\text{Season} \times 1 \text{ Season} = \$2,000$

Safety Flagging and/or Signing = $\$110/\text{Day} \times 7 \text{ Days} = \770

Tree Topping = $\$100/\text{Tree} \times 94 \text{ Trees} = \$9,400$

TOTAL Other Costs (No Profit & Risk added): \$92,850

Additional Hauling Costs = $\$25/\text{MBF} \times 3,714\text{MBF} = \$92,850$



Timber Sale Appraisal Logging Conditions Cougar Divided Sale 341-06-64

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	100.00%	
	Western Hemlock / Fir	100.00%	
	Alder (Red)	100.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Large Tower >=70		Process: Manual Delimiting
Tree Size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	12		Bd. Ft./Load: 4,800
Cost/MBF:	\$61.63		
Machines:			
	Log Loader (A)		
	Tower Yarder (Large)		



Timber Sale Appraisal

Logging Costs

Cougar Divided

Sale 341-06-64

"STEWARDSHIP IN FORESTRY"

Date: 3/3/06

Operating Seasons: 0.8

Profit & Risk: 10%

Project Costs: \$63,484

Other Costs (P/R): \$42,478

Slash Disposal: \$0

Other Costs: \$92,850

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
1.6	0.6	0.0	0.0

Road Maintenance: \$0.00

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	4.5
Western Hemlock / Fir	\$0.00	2.0	4.5
Alder (Red)	\$0.00	2.0	0.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs Breakdown

Cougar Divided

Sale 341-06-64

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	61.63	61.63	61.63
Road Maintenance	0.83	0.88	0.79
Fire Protection	0.55	0.55	0.55
Hauling	53.79	56.78	76.80
Other (P/R appl.)	10.76	10.76	10.76
Profit & Risk	12.76	13.06	15.05
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	23.52	23.52	23.52
Total	165.84	169.18	191.10

Amortization	0.00	0.00	0.00
Pond Value	628.12	389.93	497.59
Stumpage	462.28	220.75	306.49
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Cougar Divided Sale 341-06-64

Amortized

	Douglas - Fir	Westem 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	Westem Hemlock / Fir	Alder (Red)
MBF	3,714.00	205.00	29.00
Value	462.28	220.75	306.49
Total	1,716,907.92	45,253.75	8,888.21

Gross Timber Sale Value

Cash \$1,771,049.88

Prepared by: Nick Morris

Date: 3/3/06

District: Coos

Phone: (541) 267-1756

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Cougar Divided

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				
Locate Corridors and Skid Roads	MBF	0	\$ 5.00	\$ -
Small Tree Volume Cost addition	MBF	0	\$ 10.00	\$ -
Directional Felling/Tree Jacking	MBF	860	\$ 2.00	\$ 1,720.00
Felling of unmerch material	MBF	0	\$ 1.00	\$ -
Yarding and Loading				
Brand and paint logs	MBF	3948	\$ 1.00	\$ 3,948.00
Cull sorting/slash piling on landings	landing	8	\$ 125.00	\$ 1,000.00
Rig lift trees	lift tree	0	\$ 100.00	\$ -
Artificial guy anchors(dozer, skidder)	anchor	14	\$ 500.00	\$ 7,000.00
Log Processing at landing	MBF	811	\$ 10.00	\$ 8,110.00
Skid Road Layout	MBF	0	\$ 5.00	\$ -
Non required Road Construction	Stations	0		\$ -
Miscellaneous Costs				
Log Placement in Stream	Crossings	14	\$ 609.29	\$ 8,530.00
Additional fire equipment	Seasons	1	\$ 2,000.00	\$ 2,000.00
Maintenance rock per section 54	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	7	\$ 110.00	\$ 770.00
Tree topping	per tree	94	\$ 100.00	\$ 9,400.00

Total additional "Other Cost" with additional profit and risk to be added

\$ 42,478.00

Additional "Other Cost" with no additional profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Non-required road construction	Stations	0		\$ -
Non-required road rocking	Cubic Yards	0		\$ -
Stream clearance	Feet	0		\$ -
Scaling (high piece count)	MBF	0	\$ 2.00	\$ -
Grass Seeding and Fertilizing	Ac	0		\$ -

Total additional "Other Cost" with no additional profit and Risk

\$ -

SUMMARY OF CONSTRUCTION COST

Cougar Divided

Project 1A: Road and Landing Improvement - Area I

Points: A to B Length: 765' Type: 14' subgrade no ditch

Excavation

Excavator	5	hrs at	\$120.00	per hour	\$600.00
Cat time to shape road	5	hrs at	\$120.00	per hour	\$600.00
Laborer	5	hrs at	\$30.00	per hour	\$150.00

Total Excavation \$1,350.00

Culvert Installation

Install 18" culvert (sta 2+55)	30	ft at	\$18.36	per ft	\$550.80
18" band	1	band at	\$10.80	per band	\$10.80

Total Culverts \$561.60

Grade and shape road surface

Grader time	1	hrs at	\$75.00	per hour	\$75.00
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Total Grader \$75.00

Total Project 1A: \$1,986.60

Project 1B: Road Improvement - Area I

Points: D to E Length: 680' Type: 14' subgrade w/ditch

Road side brushing (2 person crew)	2	hrs at	\$60.00	per hour	\$120.00
Grader to pull ditch and smooth road	2	hrs at	\$75.00	per hour	\$150.00

Total Project 1B: \$270.00

Project 1C: Road and Landing Improvement - Area I

Points: E to F Length: 825' Type: 14' subgrade no ditch

Excavation

Excavator for clean up and to increase landing size	10	hrs at	\$120.00	per hour	\$1,200.00
Cat time to shape road	10	hrs at	\$120.00	per hour	\$1,200.00
Laborer	10	hrs at	\$30.00	per hour	\$300.00
Dump Truck to haul material to Pt G from landing excavation	10	hrs at	\$75.00	per hour	\$750.00

Total Excavation \$3,450.00

Grade and shape road surface

Grader time	1	hrs at	\$75.00	per hour	\$75.00
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Total Grader \$75.00

Total Project 1C: \$3,525.00

SUMMARY OF CONSTRUCTION COST

Cougar Divided

Project 1D: Road Improvement - Area II

Points: I to J Length: 1660'

Type: 14' subgrade no ditch

Grade and shape road surface

Grader to smooth road	3	hrs at	\$75.00	per hour	\$225.00
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Total Grading \$225.00

Total Project 1D: \$225.00

Project 1E: Road Improvement - Area II

Points: J to K Length: 500'

Type: 14' subgrade no ditch

Excavation

Excavator for clean up	5	hrs at	\$120.00	per hour	\$600.00
Cat time to shape road & fill at junction	5	hrs at	\$120.00	per hour	\$600.00
Laborer	5	hrs at	\$30.00	per hour	\$150.00

Total Excavation \$1,350.00

Grade and shape road surface

Grader time	1	hrs. at	\$75.00	per hour	\$75.00
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Total Grader \$75.00

Total Project 1E: \$1,425.00

Project 1F: Road Improvement - Area II

Points: N to O Length: 530'

Type: 14' subgrade w/ditch

Grade and shape road surface

Grader to pull ditch and smooth road	1	hrs. at	\$75.00	per hour	\$75.00
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Total Grading \$75.00

Total Project 1F: \$75.00

Project 1G: Road and Landing Improvement - Area II

Points: O to P Length: 2740'

Type: 14' subgrade no ditch

Excavation

Excavator for clean up and pull-back	40	hrs at	\$120.00	per hour	\$4,800.00
Cat time to shape road	40	hrs at	\$120.00	per hour	\$4,800.00
Dump Truck to haul pull back and widening material to Point Q	30	hrs at	\$75.00	per hour	\$2,250.00
Drill and shoot (sta 6+40 to 7+55)	10	hrs at	\$125.00	per hour	\$1,250.00
Laborer	40	hrs at	\$30.00	per hour	\$1,200.00

Total Excavation \$14,300.00

**SUMMARY OF CONSTRUCTION COST
Cougar Divided**

Culvert Installation

Install 18" culvert (sta 9+85)	<u>40</u>	ft at	<u>\$18.36</u>	per ft	<u>\$734.40</u>
18" band	<u>1</u>	band at	<u>\$10.80</u>	per band	<u>\$10.80</u>

Total Culverts \$745.20

Grade and shape road surface

Grader time	<u>3</u>	hrs. at	<u>\$75.00</u>	per hour	<u>\$225.00</u>
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Total Grader \$225.00

Total Project 1G: \$15,270.20

Move-In

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	40	4.2	\$95.00	\$399.00
Cat	40	4.2	\$95.00	\$399.00
Grader	40	4.2	\$95.00	\$399.00
Dump Truck	40	4.2	\$95.00	\$399.00
Dump Truck	40	4.2	\$95.00	\$399.00
Drill & Comp	40	4.2	\$95.00	\$399.00

Total Move-in: \$2,394.00

Project 1 Total \$25,171.00

Project 2A: Landing Construction - Area I

Points: C Length: n/a Type: n/a

Excavation

Excavator	<u>30</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$3,600.00</u>
Cat time	<u>30</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$3,600.00</u>
Laborer	<u>30</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$900.00</u>
Drill and shoot	<u>600</u>	yds at	<u>\$3.25</u>	per yd	<u>\$1,950.00</u>

Total Excavation \$10,050.00

Road Surfacing

1 1/2"-0" Rock (3.0 hr RT) For 7000 Rd, after construction	<u>54</u>	yds at	<u>\$19.58</u>	per yd	<u>\$1,057.32</u>
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Total Surfacing \$1,057.32

Grader

Grader to shape 7000 Rd and and spread rock	<u>2</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$150.00</u>
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Total Grader \$150.00

Total Project 2A: \$11,257.32

**SUMMARY OF CONSTRUCTION COST
Cougar Divided**

Project 2B: Landing Construction - Area I

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

Excavation

Cat time for excavation and shape fill 10 hrs at \$120.00 per hour \$1,200.00

Total Excavation \$1,200.00

Total Project 2B: \$1,200.00

Project 2C: Landing Construction - Area I

Points: H Length: n/a Type: n/a

Excavation

Excavator	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Cat time	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Laborer	<u>5</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$150.00</u>

Total Excavation \$1,350.00

Total Project 2C: \$1,350.00

Project 2D: Road Construction - Area II

Points: K to L Length: 515' Type: 14' subgrade no ditch

Clearing and Grubbing (includes Cat and Excavator removing overburden and stumps)

3 hrs at \$240.00 per hour \$720.00

Total clearing and grubbing: \$720.00

Excavation

Excavator	<u>50</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$6,000.00</u>
Cat time for excavation	<u>30</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$3,600.00</u>
Drill and shoot	<u>1180</u>	yds at	<u>\$3.25</u>	per yd	<u>\$3,835.00</u>
Dump Truck to haul material to Pt M	<u>50</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$3,750.00</u>
Laborer	<u>50</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$1,500.00</u>

Total Excavation \$18,685.00

Grader

Grader to shape road 2 hrs at \$75.00 per hour \$150.00

Total Grader \$150.00

Total Project 2D: \$19,555.00

**SUMMARY OF CONSTRUCTION COST
Cougar Divided**

Project 2E: Landing Construction - Area II

Points: M Length: n/a Type: n/a

Excavation

Cat time for excavation and to shape fill material 10 hrs at \$120.00 per hour \$1,200.00

Total Excavation \$1,200.00

Total Project 2E: \$1,200.00

Project 2F: Road and Landing Construction

Points: Q to R Length: 200' Type: 14' subgrade no ditch

Clearing and Grubbing (includes Cat and Excavator removing overburden and stumps)

1 hrs at \$240.00 per hour \$240.00

Total clearing and grubbing: \$240.00

Excavation

Excavator	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Cat time to construct road and shape fill	<u>10</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$1,200.00</u>
Laborer	<u>10</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$300.00</u>

Total Excavation \$2,100.00

Total Project 2F: \$2,340.00

Project 2 Total \$36,903.00

Project 3: Road Surfacing

Points: 7000 Road below Pt C
Length: 150'
Rock Type: 1 1/2"-0" Hard Crushed Quarry
Depth: n/a

1 1/2"-0" Rock (3.0 hr RT) 72 yds at \$19.58 per yd \$1,409.76
To be put down after logging is complete

Project 3 Total \$1,410.00

Total Project Costs \$63,484.00

TIMBER SALE SUMMARY

Cougar Divided

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.
4. **Sale Acreage:** The total sale area is 74 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	3 Saw Large Diameter	4 Saw/Camp
Douglas-fir	6 %	7 %	64 %	10 %	9 %	4 %
Red Alder	-----	-----	-----	46 %	-----	54 %
Western Red Cedar	-----	-----	-----	-----	-----	-----
Western Hemlock	-----	-----	45%	12 %	20 %	23%
Sitka Spruce	-----	-----	-----	-----	-----	-----

7. **Cruise:** The unit was variable plot cruised using the Big BAF cruise design, which consisted of 74 nested plots. Each plot consists of both a full 40 BAF count plot and a full 360 BAF measure plot. The 40 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 40 BAF plot was then used to select hardwoods and minor species to cruise and the 360 BAF plot to select Douglas-fir to cruise. Selected trees were cruised for diameter at breast height, height, grade and defect. 71 Douglas-fir 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	53.6	7.23

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft ² /ac)	BF per acre
Douglas-fir	22	91	240	50,200
Red Alder	13	5	5	400
Western Cedar	---	---	---	---
Sitka Spruce	---	---	---	---
Western Hemlock	15	20	27	2,800

C. Green Tree Retention Summary: Most green trees were posted outside of the timber sale, except some scattered and grouped 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 95 to 136 year-old Douglas-fir with a minor component of red alder and scattered understory hemlock trees, and approximately 4 acres of 25 to 39 year-old Douglas-fir. Conifers range from 70 to 215 feet tall while hardwoods are about 20 to 60 feet.
9. **Topography:** The units range from 15 percent to over 70 percent 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 north on highway 101 to Reedsport, proceed east for approximately 13 miles on Highway 38. Turn right onto Loon Lake Road and proceed for about 5 miles to forest road 7700. Once here it is another 2.5 miles to forest road number 7000. Area 1 is approximately 1/2 mile to the north on the left hand side of the 7000 road, and areas 2 and 3 can be accessed from the 7720 and 7730 just south of the junction of the 7700 and the 7000.

12. **Projects:**

Project No. 1: Road and Landing Improvement

Project No. 2: Road and Landing Construction

Project No. 3: Road Rocking

NET VOLUMES AND ACREAGE

Cougar Divided

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							
			By County and Fund						Total Vols.	Vol. per Acre
Areas	Spec	Coos			Douglas					
		CSL	BOF	Total	CSL	BOF	Total			
1-2-3	D-fir	3120		3120	594		594	3714	50.2	
	Hem	172		172	33		33	205	2.8	
	Hdwd	24		24	5		5	29	0.4	
TOTALS				3316	0	3316	632	0	632	3948

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 3714 MBF
 Hemlock 205 MBF
 Hdwd 29 MBF

Report by: N. Morris

Date: 02/22/2006

Unit For. Strom 2/27/06
 Date

Asst. Dist. For. W. Winters 2.27.2006
 Date

NO INGROWTH INCLUDED.

NET HARVEST ACREAGE BY COUNTY (to nearest acre)

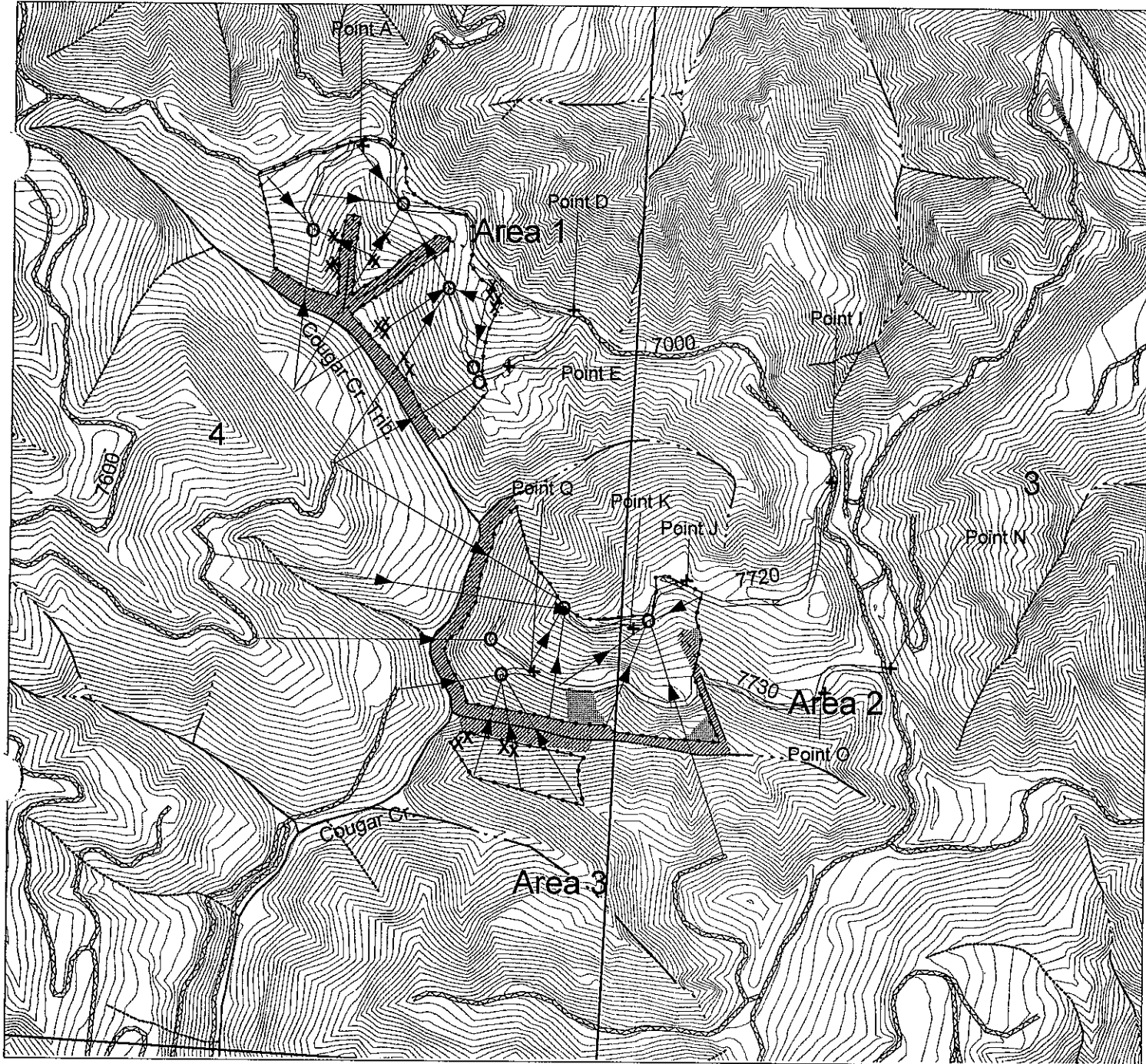
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
I	35												35
II	21						12						33
III	6												6
SUM	62	0	0	0	0	0	12	0	0	0	0	0	74

cc- clearcut















pc- partial cut

FDF- Forest Development Fund

FRA- Forest Revenue Account

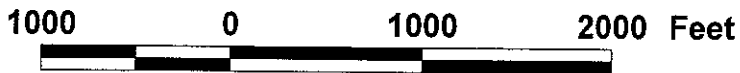


Logging Plan

-  Purchaser maintained Roads
-  State Maintained Roads
-  Harvest Boundary
-  Section Lines
-  Stream Buffers
-  GTR Pods
- Streams**
-  Type N Perennial
-  Type F Perennial
-  Type N Seasonal
-  20 foot contours
-  Landings
-  Project Points
-  Cable Corridors
-  GTR Singles



Cougar Divided
 341-06-64
 Portions of Sections 3 & 4
 T23S, R10W, W.M.
 Coos & Douglas Counties, OR
 Approximately 74 Net Harvest Acres



The information shown on this map depicts approximate locations. Exact locations of Features represented by map symbols shall be determined on site and shall depend upon the conditions that exist on site. Activities will be conducted based upon features determined on site rather than features shown on this map.