



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Lower Beaver Sale 341-02-64

District: Coos

Date: 12/31/01

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,662,201.46	\$9,670.85	\$1,671,872.31
		Project Work	(\$56,202.00)
		Advertised Value	\$1,615,670.31



Timber Sale Appraisal Timber Description Lower Beaver Sale 341-02-64

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: 2300 Road
10 miles up the 1000 Rd.
Por. Sec. 1 and 2, T24S R11W, WM

Date: 12/31/01

Stand Stocking: 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	25	0	95
Western Hemlock / Fir	16	0	90
Alder (Red)	16	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
3P	39	0	0	39
SM	235	0	0	235
2S	2,853	0	0	2,853
3S	782	0	0	782
Camprun	0	26	35	61
Total	3,909	26	35	3,970

Comments: Pond Values Used: 4th Quarter 2001

Regeneration Harvest of 56 Acres
Wildlife emphasis on Green Tree Retention
Sold on a recovery basis



Timber Sale Appraisal Logging Conditions Lower Beaver Sale 341-02-64

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 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)

Combination#: 2 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 Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
Loads/Day: 11 **Bd. Ft./Load:** 3,500
Cost/MBF: \$92.21
Machines:
Log Loader (A)
Tower Yarder (Large)



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs

Lower Beaver

Sale 341-02-64

Date: 12/31/01

Operating Seasons: 1.2

Profit & Risk: 13%

Project Costs: \$56,202

Other Costs (P/R): \$12,760

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
1.2	0.5	0.0	0.0

Road Maintenance: \$0.00

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	4.8
Western Hemlock / Fir	\$0.00	2.0	3.5
Alder (Red)	\$0.00	3.0	3.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Lower Beaver Sale 341-02-64

Costs	Douglas - Fir	Western Hem lock / Fir	Alder (Red)
Logging	61.63	92.21	92.21
Road Maintenance	0.65	0.69	0.69
Fire Protection	0.82	0.82	0.82
Hauling	48.42	73.00	56.78
Other (P/R appl.)	3.21	3.21	3.21
Profit & Risk	14.91	22.09	19.98
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	0.00
Other	0.00	0.00	0.00
Total	131.64	194.02	173.69

Amortization	0.00	0.00	0.00
Pond Value	555.86	345.00	450.00
Stumpage	424.22	150.98	276.31
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Lower Beaver Sale 341-02-64

Amortized

	Douglas - Fir	Western Hem lock / 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 Hem lock / Fir	Alder (Red)
MBF	3,909.00	26.00	35.00
Value	424.22	150.98	276.31
Total	1,658,275.98	3,925.48	9,670.85

Gross Timber Sale Value

Recovery \$1,671,872.31

Prepared by: Chris Rudd

Date: 12/31/01

District: Coos

Phone: (541) 267-1757

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Lower Beaver

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				
Directional Felling	MBF	1000	\$ 2.00	\$ 2,000.00
Yarding and Loading				
Brand and paint logs	MBF	3970	\$ 1.00	\$ 3,970.00
Loader time for firewood stacking	Hours	6	\$ 75.00	\$ 450.00
Miscellaneous Costs				
Safety Flagging and/or signing	per day	10	\$ 150.00	\$ 1,500.00
Tree Topping	per tree	28	\$ 100.00	\$ 2,800.00
Total additional "Other Cost" with additional profit and risk to be added				\$ 10,720.00



SUMMARY OF CONSTRUCTION COST

Lower Beaver

Project No. 1: Road Construction

Points: B to C
 Length: 1375'
 Type: 14', no ditch

Clearing and Grubbing

1.1 acres at \$790.00 \$ per acre = \$869.00

Total clearing and grubbing \$869.00

Excavation

Drill and Shoot	<u>3400</u>	cubic yds at	<u>\$3.00</u>	per cu yd	<u>\$10,200.00</u>
Laborer	<u>40</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$1,200.00</u>
Cat time to prep and shape road fill (sta 0+00 to 3+00)	<u>10</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$1,250.00</u>
Cat time to prep and shape waste areas	<u>25</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$3,125.00</u>
Excavation	<u>8673</u>	cubic yds at	<u>\$1.23</u>	per cu yd	<u>\$10,667.79</u>

Total Excavation \$26,442.79

Hauling

Endhaul (0+00 to 3+00)	<u>939</u>	cubic yds at	<u>\$0.89</u>	per cu yd	<u>\$835.71</u>
Endhaul to waste area Pt. E (0.56 mi RT)	<u>4100</u>	cubic yds at	<u>\$1.34</u>	per cu yd	<u>\$5,494.00</u>
Endhaul to waste area Pt. D (0.52 mi RT)	<u>3634</u>	cubic yds at	<u>\$1.17</u>	per cu yd	<u>\$4,251.78</u>

Total Hauling \$10,581.49

Move-in

Equipment	Miles	Mileage Factor	Equipment Allowance	Total
Excavator	30	0.66	\$533.00	\$351.78
D8 Cat	30	0.66	\$533.00	\$351.78
Grader	30	0.66	\$241.00	\$159.06
Drill & Comp	30	0.66	\$241.00	\$159.06
Dump Truck	30	0.66	\$144.00	\$95.04
Dump Truck	30	0.66	\$144.00	\$95.04

Total Move-in \$1,211.76

Grade Road Surface

1 hrs Grade @ \$75.00 per hour \$75.00

Total Grading \$75.00

Project 1 Cost \$39,180.04

SUMMARY OF CONSTRUCTION COST

Project 2a: Road and Landing Improvement

Points: A to B
 Length: 3425'
 Type: 14', with ditch

Grade Road Surface

	1	hrs Grade @	\$75.00	per hour	\$75.00	
						Total Grading
						\$75.00
						Project 2a Cost
						\$75.00

Project 2b: Road and Landing Improvement

Points: F to G
 Length: 1185'
 Type: 14', with ditch

Clearing and Grubbing

Saw time to brush road	3	hrs at	\$30.00	per hr	\$90.00	
						Total clearing and grubbing
						\$90.00

Excavation

Drill and Shoot boulders in slide area	2	hrs at	\$150.00	per hr	\$300.00	
Excavation - remove slough from cutbank, clean out large slide in road	330	cubic yds at	\$2.00	per cu yd	\$660.00	
Laborer	2	hrs at	\$30.00	per hr	\$60.00	
						Total Excavation
						\$1,020.00

Hauling

Endhaul to Pt. H	330	cubic yds at	\$1.00	per cu yd	\$330.00	
						Total Hauling
						\$330.00

Grade Road Surface

	1	hrs Grade @	\$75.00	per hour	\$75.00	
						Total Grading
						\$75.00
						Project 2b Cost
						\$1,515.00
						Project 2 Cost
						\$1,590.00

SUMMARY OF CONSTRUCTION COST

Project No. 3: Y Creek Stockpile

Location: 3 mile marker on 1000 Road
Measured amount: 1000 cubic yards
Delivered amount: 1200 cubic yards (20% expansion)
Size: 1 1/2" - 0"

Cost per cubic yard at crusher:	\$7.00	per cu yd
Haul cost per cubic yard (1.6 hr. RT):	\$5.33	per cu yd
Piling and shaping cost per cubic yard:	\$0.53	per cu yd

Total cost per cubic yard:	\$12.86	per cu yd
Total cubic yards:	1200	cubic yards

Total Cost for Stockpile rock: \$15,432.00

Project 3 cost \$15,432.00

Total Project Costs \$56,202.04

TIMBER SALE SUMMARY

Lower Beaver

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 56 acres. The acreage was determined by ArcView software, a geographic information system.
5. **Volume by Species, Fund, and County:** See table on following page.
6. **Grade by Percent:**

Species	3 Peeler	Special Mill	2 Saw	3 Saw	4 Saw/Camp
Douglas-fir	1	6	73	20	0
Hemlock	-----	-----	-----	-----	100
Hardwood	-----	-----	-----	-----	100

7. **Cruise:** The unit was variable plot cruised using the big basal area factor method. A 360 BAF wedge factor was used for measure trees and a 40 BAF was used for count trees. Heights, diameter, form factor, grade and defect were taken on measure plots. Lower Beaver was cruised by ODF Foresters and compiled using Superace, in November 2001.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE %
D4H	Total Height	Conifer: 16' Hardwood: 16'	Recorded on all trees	30	7

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft ² /ac)	BF per acre
Douglas-fir	25	78	274	69,804
Hemlock	16	1	2	407
Hardwood	16	7	7	634

- C. **Green Tree Retention Summary:** The following tree counts and tree volumes were marked for retention within the cruised portion of the sale area. The tree volumes were deducted from the cruise results.

Unit II	Douglas-fir	Hemlock	Hardwood
Tree Count	72	14	9
Volume (MBF)	69.9	4	2

- 8. Timber Description:** Lower Beaver is approximately 110 year old second growth Douglas-fir, of good to average quality, with a small amount of alder understory. This stand of timber is uniform (CV 30%) and high density. The average diameter is about 25 inches with smaller diameter high density timber in the west of the unit and larger diameter (30-60") timber on the benchy east side of the unit.
- 9. Topography:** Compared to other harvest units in the Elliott, topography is moderate with slopes ranging from 20% on the benches to 60% in the east of the unit. The unit is not as dissected as the average Elliott timber sale. Green trees are left in patches and in single trees on benchy areas of the unit.
- 10. Logging Method:** The sale will be cable logged uphill with single-end suspension over the unit. Full suspension will be required over designated streams and RMA's. A motorized carriage may be required to obtain the necessary suspension. The sale has several options for landings. Area II of the sale is restricted from cutting until February 2004 in order to comply with the acreage restrictions of the Forest Practices Act. This sale must be cut prior to October 1, 2004. Purchaser has the option of rocking the spur roads to the specifications of the State, and at Purchasers expense, to facilitate winter logging.
- 11. Access:** Take the Coos River Highway to ½ mile past Allegany. Turn left along Marlow Creek and follow the 1000 Road to the 10 mile marker. Turn left on the 2300 Road and follow it to the 2300. (See Exhibit A).
- 12. Projects:**
- Project No. 1: Road Construction of a spur road off the 2308 out to a landing.
- Project No. 2: Road and landing improvement along the spurs to the sale.
- Project No. 3: Rock stockpile.
- Project No. 4: Top twenty eight trees.

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		
I	D-fir		3421		3421			0	3421	70
	Hem		26		26			0	26	0.5
	Hdwd		35		35			0	35	0.6
II	D-fir		488		488			0	488	70
TOTALS			3970	0	3970	0	0	0	3970	

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 3909 MBF
Hemlock 26 MBF
Red Cedar 0 MBF
Hardwoods 35 MBF

Report by: Lower Beaver

Date: 12/27/01

Unit For. _____
Date _____

Asst. Dist. For. _____
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	49												49
II	7												7
SUM	56	0	0	0	0	0	0	0	0	0	0	0	56

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land

WRITTEN PLAN

File: I:\Misc. Admin (old sl6 backup)\FPAPLANS\Lower Beaver.doc

SALE NAME: Lower Beaver

LOCATION: Portions of Sections. 1 and 2, T24S R11, Coos County, Or.

LANDOWNER: Oregon Department of Forestry; 63612 5th Rd. Coos Bay, Or.

CONTRACT PURCHASER: _____

NOTIFICATION NO: _____

This written plan is prepared to comply with the requirements for a written plan as provided for by the Forest Practices Act (OAR) 629-635-130 (1a). This plan outlines the measures to be taken to comply with the Forest Practices Act green-up requirements and Type F stream protection requirements. The affected stream is Beaver Creek, a Type F stream, located adjacent to sale areas I.

SITUATION

Area I of the Lower Beaver timber sale is located adjacent to Beaver Creek. Sale boundaries have been posted at least 100 feet from Beaver Creek to meet all FPA requirements. Protection measures required by the Forest Practices Act for the RMA are provided for in the sale contract. Area II is within 300 feet of recent harvest areas that would be enlarged beyond the FPA minimum of 120 acres if cut. Protective measures are as follows:

FELLING AND BUCKING

1. No trees or snags within the posted RMA boundaries will be felled.
2. Trees will be felled parallel to or away from the RMA so as to minimize their potential of entering the RMA or damaging RMA vegetation.
3. Felling of trees within Area II may not be started until February 1, 2004

YARDING

1. Operator will use a machine capable of fully suspending logs.
2. When cables pass through or over the buffer strip shown on the contract Exhibit "A", trees will be protected as follows:
 - a. Cables will be pulled out of the residual timber prior to rigging the next yarding road.
 - b. The skyline will not be lowered into the buffer during the yarding cycle.
 - c. Yarding roads will be spaced a minimum of 100 feet apart where they extend over or through the RMA.

O.D.F. REPRESENTATIVE Date

PURCHASER REPRESENTATIVE Date

OPERATOR REPRESENTATIVE Date

APPROVED BY: _____ DATE: _____

TITLE