



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Cost Summary West Fork Headlands Sale 341-07-36

District: Coos

Date: 2/1/07

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$322,318.83	\$6,256.80	\$328,575.63
		<b>Project Work</b>	(\$40,336.00)
		<b>Advertised Value</b>	\$288,239.63



# Timber Sale Appraisal Timber Description West Fork Headlands Sale 341-07-36

"STEWARDSHIP IN FORESTRY"

**District:** Coos

**Location:** Portions of Section 13, T24S, R12W, W.M., Coos County, Oregon.

**Date:** 2/1/07

**Stand Stocking:** 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	22	0	90
Western Hemlock / Fir	13	0	90
Alder (Red)	12	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
3P and Btr	10	0	0	10
SM	30	0	0	30
2S	584	0	0	584
3S	267	3	0	270
3S 12"+	89	0	0	89
4S	10	0	0	10
8" - 9"	0	0	2	2
10" - 11"	0	0	3	3
12"+	0	0	3	3
6" - 7"	0	0	14	14
<b>Total</b>	<b>990</b>	<b>3</b>	<b>22</b>	<b>1,015</b>

**Comments:** Pond Values Used: 4th Quarter Calendar Year 2006.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost  
 $\$623.68/\text{MBF} = \$825/\text{MBF} - \$201.32/\text{MBF}$

#### HAULING

Hauling costs adjusted to make equivalent to \$700 daily truck cost.

$\$700 - \% \text{ Profit \& Risk } (\$700 / 1.15) = \$608 \text{ Daily Truck Cost.}$

Hauling Cost Calculation Douglas-fir:

$\$608 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 4.5 \text{ MBF per load}) = \$45.04/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Western Hemlock:

$\$608 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 4.5 \text{ MBF per load}) = \$45.04/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Red Alder:

$\$608 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 3.5 \text{ MBF per load}) = \$57.91/\text{MBF Hauling Cost.}$

Other Costs (Profit & Risk to be added):

See attached sheet.



# Timber Sale Appraisal Logging Conditions West Fork Headlands Sale 341-07-36

"STEWARDSHIP IN FORESTRY"

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<b>Combination#:</b> 1	Douglas - Fir	100.00%	
	Western Hemlock / Fir	100.00%	
	Alder (Red)	100.00%	
<b>Yarding Distance:</b>	Long (1,500 ft)		<b>Downhill Yarding:</b> No
<b>Logging System:</b>	Cable: Large Tower >=70		<b>Process:</b> Manual Delimiting
<b>Tree Size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
<b>Loads/Day:</b>	8		<b>Bd. Ft./Load:</b> 3,500
<b>Cost/MBF:</b>	\$126.79		
<b>Machines:</b>			
	Log Loader (A)		
	Tower Yarder (Large)		



# Timber Sale Appraisal Logging Costs West Fork Headlands Sale 341-07-36

"STEWARDSHIP IN FORESTRY"

Date: 2/1/07

Operating Seasons: 0.5

Profit & Risk: 15%

Project Costs: \$40,336

Other Costs (P/R): \$5,850

Slash Disposal: \$0

Other Costs: \$0

Road Maintenance: \$0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.3	2.5	0.0	0.0

### Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$45.04	3.0	4.5
Western Hemlock / Fir	\$45.04	3.0	4.5
Alder (Red)	\$57.91	3.0	3.5

### Local Pond Values

Date	Species	Grade	Value
2/1/07	Alder (Red)	8" - 9"	\$655.00
2/1/07	Alder (Red)	10" - 11"	\$685.00
2/1/07	Alder (Red)	12"+	\$750.00
2/1/07	Alder (Red)	6" - 7"	\$410.00



# Timber Sale Appraisal Logging Costs Breakdown West Fork Headlands Sale 341-07-36

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Westem Hemlock / Fir	Alder (Red)
<b>Logging</b>	126.79	126.79	126.79
<b>Road Maintenance</b>	1.54	1.54	1.54
<b>Fire Protection</b>	1.34	1.34	1.34
<b>Hauling</b>	50.04	50.04	64.34
<b>Other (P/R appl.)</b>	5.76	5.76	5.76
<b>Profit &amp; Risk</b>	27.82	27.82	29.97
<b>Slash Disposal</b>	0.00	0.00	0.00
<b>Scaling</b>	2.00	2.00	2.00
<b>Other</b>	0.00	0.00	0.00
<b>Total</b>	215.29	215.29	231.74

<b>Amortization</b>	0.00	0.00	0.00
<b>Pond Value</b>	540.32	395.00	516.14
<b>Stumpage</b>	325.03	179.71	284.40
<b>Amortized</b>	0.00	0.00	0.00



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# Timber Sale Appraisal Summary West Fork Headlands Sale 341-07-36

**Amortized**

	Douglas - Fir	Westem Hemlock / Fir	Alder (Red)
<b>MBF</b>	0.00	0.00	0.00
<b>Value</b>	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00

**Unamortized**

	Douglas - Fir	Westem Hemlock / Fir	Alder (Red)
<b>MBF</b>	990.00	3.00	22.00
<b>Value</b>	325.03	179.71	284.40
<b>Total</b>	321,779.70	539.13	6,256.80

**Gross Timber Sale Value**

**Recovery \$328,575.63**

Prepared by: Gloria Clary

Date: 2/1/07

District: Coos

Phone: (541) 267-1757

## Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: West Fork Headlands

### 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>
<b>Felling</b>				
Felling of unmerch material	MBF	0	\$ 1.00	\$ -
Directional Felling	MBF	575	\$ 2.00	\$ 1,150.00
<b>Yarding and Loading</b>				
Locate Corridors and Skid Roads	MBF	17	\$ 5.00	\$ 85.00
Artificial guyline support	anchor	2	\$ 500.00	\$ 1,000.00
Brand and paint logs	MBF	1015	\$ 1.00	\$ 1,015.00
Loader time for firewood stacking	Hours	8	\$ 75.00	\$ 600.00
<b>Snag Creation</b>				
Tree Topping	Trees	15	\$ 100.00	\$ 1,500.00
Tree Girdling	Trees	0	\$ 20.00	\$ -
<b>Miscellaneous Costs</b>				
Log Placement in Stream	Crossings	0	\$ -	\$ -
Additional Fire Equipment	Seasons	0.5	\$ 1,000.00	\$ 500.00
Maintenance rock per section 5	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	0	\$ 110.00	\$ -
<b>Total additional "Other Cost" with additional profit and risk to be added</b>				<b>\$ 5,850.00</b>



**SUMMARY OF CONSTRUCTION COST  
West Fork Headlands**

**Project 1A: Road and Landing Construction**

Points: B to C      Length: 1770'      Type: 14' subgrade no ditch  
(includes landing at Point D)

**Clearing and Grubbing**

Clear and Grub	<u>1.5</u>	acres at	<u>\$1,060.00</u>	per acre	<u>\$1,590.00</u>
<b>Total Clear and Grub</b>					<b>\$1,590.00</b>

**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>
<b>Total Excavation</b>					<b>\$8,100.00</b>

**Grade and shape road surface**

Grader time	<u>4</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$300.00</u>
<b>Total Grader</b>					<b>\$300.00</b>
<b>Total Project 1A:</b>					<b>\$9,990.00</b>

**Project 1B: Landing Construction**

Points: E      Length: n/a      Type: n/a

Excavator load material at landing	<u>10</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$1,200.00</u>
Drill & Shoot	<u>120</u>	yds at	<u>\$3.50</u>	per yd	<u>\$420.00</u>
Cat time to shape landing & waste area	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Dump Truck - haul to Pt B (approx. 500 yds)	<u>10</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$750.00</u>
Laborer	<u>10</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$300.00</u>
<b>Total Excavation</b>					<b>\$3,270.00</b>
<b>Total Project 1B:</b>					<b>\$3,270.00</b>

**Move-In**

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	25	2	\$95.00	\$190.00
Cat	25	2	\$95.00	\$190.00
Grader	25	1.5	\$95.00	\$142.50
Dump Truck	25	1.5	\$95.00	\$142.50
Drill & Comp	25	1.5	\$95.00	\$142.50
<b>Total Move-In:</b>				<b>\$807.50</b>
<b>Project 1 Total</b>				<b>\$14,068.00</b>

**SUMMARY OF CONSTRUCTION COST  
West Fork Headlands**

**Project 2: Road Improvement**

Points: A to B      Length: 1285'      Type: 14' subgrade w/ditch

Sawtime to brush road (2 person crew)	10	hrs at	<u>\$73.50</u>	per hour	<u>\$735.00</u>
Excavator to remove small trees/brush	2	hrs at	<u>\$120.00</u>	per hour	<u>\$240.00</u>
Laborer	2	hrs at	<u>\$30.00</u>	per hour	<u>\$60.00</u>
Grader to smooth road surface & re-establish ditchline	3	hrs at	<u>\$75.00</u>	per hour	<u>\$225.00</u>

**Project 2 Total      \$1,260.00**

**Project 3: Trail Butte Rock Stockpile**

Location: 3 mi on 2000 Rd  
Measured amount: 1200 cu yds  
Size: 1 1/2" - 0"

Cost per cu yd at crusher:	\$13.97	per yd
Haul cost per cu yd (1.4 hr. RT):	\$6.22	per yd
Piling and shaping cost per cu yd:	<u>\$0.65</u>	per yd
 Total cost per cu yd:	 \$20.84	 per yd
Total cu yds:	1200	yards

**Total Cost for Stockpile rock:      \$25,008.00**

**Project 3 Total      \$25,008.00**

**Total Project Costs      \$40,336.00**

## TIMBER SALE SUMMARY

### West Fork Headlands

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 29 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	S M	2 Saw (12"+)	Big 3 Saw	3 Saw (10-11")	4 Saw (8-9")	(6-7")
Douglas-fir	1 %	3 %	59 %	9 %	27 %	1 %	-----
Red Alder	-----	-----	13 %	-----	14 %	11 %	62 %
Western Red Cedar	-----	-----	-----	-----	-----	-----	-----
Western Hemlock	-----	-----	-----	-----	100 %	-----	-----
Sitka Spruce	-----	-----	-----	-----	-----	-----	-----

7. **Cruise:** The unit was variable plot cruised using the Big BAF cruise design with two strata (a mature and young stand), which consisted of 78 nested plots. For the mature stand each plot consists of both a full 40 BAF count plot and a full 360 BAF measure plot, and the young stand 20 BAF and 90 BAF. The 20/40 BAF plot was used to tally the number of trees by species to determine the stand basal area. The 20/40 BAF plot was then used to select hardwoods and minor species to cruise and the 90/360 BAF plot to select Douglas-fir trees to cruise. Selected trees were cruised for diameter at breast height, height, grade and defect. Sixty-two 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	53.7	7.08

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft <sup>2</sup> /ac)	BF per acre
Douglas-fir	22	67	206	34,137
Red Alder	12	27	21	758
Western Hemlock	13	1	2	103

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 has two stands that are moderately stocked of approximately 112 year old second growth and 60 year old third growth Douglas-fir, of good to average quality, with red alder, and western hemlock in the understory. Conifers range from 60 to 185 feet tall while hardwoods are about 33 to 77 feet.

**9. Topography:** The unit ranges from 15% to 90% slope. There are a few benches as well as steep drainages in Area 2. There is a large bench on Area 1.

**10. Logging Method:** The sale will be mostly cable logged 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. Benchy topography on Area 1 may allow for ground operations. Tail trees 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 North Bay Road, proceed for 2 miles and then enter the forest from the west on Larson Way, take the 3000 Rd. for approximately 5 miles to the timber sale area.

**12. Projects:**

Project No. 1: Road and Landing Construction

Project No. 2: Road Improvement

Project No. 3: Rock Stockpile

## 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&II	D-fir		990		990			0	990	34.14
	Hdwd		22		22			0	22	0.76
	Cedar		0		0			0	0	0.00
	Spruce		0		0			0	0	0.00
	Hemlock		3		3			0	3	0.10
<b>TOTALS</b>			1015	0	1015	0	0	0	1015	

**TOTAL SALE VOLUME BY SPECIES**

Douglas-fir	990	MBF
Hemlock	3	MBF
Cedar	0	MBF
Spruce	0	
Hardwoods	22	MBF
Total	1015	MBF

Report by: West Fork Headlands

Date: 01/26/2007

Unit For. Norm Klie 1/29/07  
Date

Asst. Dist. For. Greg Kreininger 1.29.2007  
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			
	cc	pc	Hard wood	cc	pc	Hard woods	cc	pc	Hard woods	cc	pc	Hard woods	
I	9		1										10
II	19												19
													0
													0
<b>SUM</b>	28	0	1	0	0	0	0	0	0	0	0	0	29

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land



**LEGEND**

- Landing
- + Project Point
- - - Posted Sale Boundary
- Roads**
- State Maintained Road
- - - Purchaser Maintained Road
- - - / New Road Construction
- - - / Right of Way Boundary
- / Yarding Corridor
- Streams**
- Type F
- - - Type N Perennial
- - - Type N Seasonal
- ▨ Stream Buffer
- Green Tree Retention Group
- × Green Tree Retention Single
- △ Contours: 20 Foot

**APPROXIMATE ACREAGE**

AREA I	10
AREA II	19
<b>TOTAL</b>	<b>29</b>

**LOGGING PLAN**

**WEST FORK HEADLANDS**  
 341-07-36  
 PORTIONS OF SECTION 13  
 T24S, R12W  
 COOS COUNTY, OREGON  
 APPROXIMATELY 29 NET HARVEST ACRES

APPROX. SCALE: 1" = 1000'

