



"STEWARDSHIP IN FORESTRY"

# **Timber Sale Appraisal Cost Summary Wild Rice Sale 341-07-37**

**District: Forest Grove**

**Date: 10/9/06**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$896,910.92	\$13,463.28	\$910,374.20
	<b>Project Work</b>		(\$9,426.00)
	<b>Advertised Value</b>		\$900,948.20



# Timber Sale Appraisal

## Timber Description

### Wild Rice

### Sale 341-07-37

"STEWARDSHIP IN FORESTRY"

**District:** Forest Grove

**Location:** Portion of Section 33, T3N, R5W, W.M., Washington County, Oregon.

**Date:** 10/9/06

**Stand Stocking:** 40%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	15	0	98
Western Hemlock / Fir	14	0	98
Red Cedar	13	0	98
Alder (Red)	10	0	98

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)	Total
2S	1,062	83	0	0	1,145
3S	1,039	92	7	5	1,143
4S	320	31	0	49	400
Total	2,421	206	7	54	2,688

**Comments:** Pond Values Used: 3rd Quarter Calendar Year 2006.

Other Costs (with Profit & Risk to be added):  
Brand & Paint 2,688 MBF @ \$1/MBF = \$2,688.

Other Costs (no Profit & Risk added):  
8 hours of equipment time to waterbar and block dirt roads @\$110/hr. = \$880.

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

Hauling Cost Calculation Douglas-fir:  
\$700 - % Profit & Risk ( $\$700 / 1.15$ ) = \$608 Daily Truck Cost.  
\$608 Daily Truck Cost / (2 trips per day x 4.2 mbf per load) = \$72.38/MBF Hauling Cost.

Hauling Cost Calculation Western Hemlock:  
\$700 - % Profit & Risk ( $\$700 / 1.15$ ) = \$608 Daily Truck Cost.  
\$608 Daily Truck Cost / (2 trips per day x 3.8 mbf per load) = \$80.00/MBF Hauling Cost.

Hauling Cost Calculation Western Red Cedar:  
\$700 - % Profit & Risk ( $\$700 / 1.15$ ) = \$608 Daily Truck Cost.  
\$608 Daily Truck Cost / (2 trips per day x 3.5 mbf per load) = \$86.86/MBF Hauling Cost.

Hauling Cost Calculation Red Alder:  
\$700 - % Profit & Risk ( $\$700 / 1.15$ ) = \$608 Daily Truck Cost.  
\$608 Daily Truck Cost / (2 trips per day x 3.0 mbf per load) = \$101.33/MBF Hauling Cost.



# Timber Sale Appraisal

## Logging Conditions

### Wild Rice

### Sale 341-07-37

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<b>Combination#:</b> 1	Douglas - Fir	30.00%	
	Western Hemlock / Fir	30.00%	
	Red Cedar	30.00%	
	Alder (Red)	30.00%	
<b>Yarding Distance:</b>	Medium (800 ft)		<b>Downhill Yarding:</b> No
<b>Logging System:</b>	Cable: Medium Tower >40 - <70		<b>Process:</b> Manual Delimbing
<b>Tree Size:</b>	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
<b>Loads/Day:</b>	8		<b>Bd. Ft./Load:</b> 4,200
<b>Cost/MBF:</b>	\$98.71		
<b>Machines:</b>			
	Log Loader (A)		
	Tower Yarder (Medium)		
<b>Combination#:</b> 2	Douglas - Fir	40.00%	
	Western Hemlock / Fir	40.00%	
	Red Cedar	40.00%	
	Alder (Red)	40.00%	
<b>Yarding Distance:</b>	Short (400 ft)		<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Shovel		<b>Process:</b> Manual Delimbing
<b>Tree Size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
<b>Loads/Day:</b>	8		<b>Bd. Ft./Load:</b> 4,200
<b>Cost/MBF:</b>	\$70.08		
<b>Machines:</b>			
	Shovel Logger		
<b>Combination#:</b> 3	Douglas - Fir	30.00%	
	Western Hemlock / Fir	30.00%	
	Red Cedar	30.00%	
	Alder (Red)	30.00%	
<b>Yarding Distance:</b>	Medium (800 ft)		<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Wheel Skidder		<b>Process:</b> Feller Buncher
<b>Tree Size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
<b>Loads/Day:</b>	10		<b>Bd. Ft./Load:</b> 4,200
<b>Cost/MBF:</b>	\$79.86		
<b>Machines:</b>			
	Feller Buncher w/ Delimber		
	Log Loader (B)		
	Stroke Delimber (B)		
	Tire Skidder		



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal

## Logging Costs

### Wild Rice

### Sale 341-07-37

Date: 10/9/06

Operating Seasons: 2.0

Profit & Risk: 15%

Project Costs: \$9,426

Other Costs (P/R): \$2,688

Slash Disposal: \$0

Other Costs: \$880

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.6	0.0	1.0	0.0

Road Maintenance: \$0.00

#### Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$72.38	2.0	4.2
Western Hemlock / Fir	\$80.00	2.0	3.8
Red Cedar	\$86.86	2.0	3.5
Alder (Red)	\$101.33	2.0	3.0

**Local Pond Values**

Date	Species	Grade	Value
10/9/06	Douglas - Fir	2S	\$580.00
10/9/06	Douglas - Fir	3S	\$515.00
10/9/06	Douglas - Fir	4S	\$475.00
10/9/06	Western Hemlock / Fir	2S	\$385.00
10/9/06	Western Hemlock / Fir	3S	\$370.00
10/9/06	Western Hemlock / Fir	4S	\$350.00
10/9/06	Red Cedar	3S	\$1,000.00
10/9/06	Alder (Red)	3S	\$580.00
10/9/06	Alder (Red)	4S	\$455.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal

## Logging Costs Breakdown

### Wild Rice

### Sale 341-07-37

Costs	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
<b>Logging</b>	81.60	81.60	81.60	81.60
<b>Road Maintenance</b>	0.61	0.61	0.61	0.61
<b>Fire Protection</b>	2.02	2.02	2.02	2.02
<b>Hauling</b>	73.86	81.63	88.63	103.40
<b>Other (P/R appl.)</b>	1.00	1.00	1.00	1.00
<b>Profit &amp; Risk</b>	23.86	25.03	26.08	28.29
<b>Slash Disposal</b>	0.00	0.00	0.00	0.00
<b>Scaling</b>	2.00	2.00	2.00	0.00
<b>Other</b>	0.33	0.33	0.33	0.33
<b>Total</b>	185.28	194.22	202.27	217.25

<b>Amortization</b>	0.00	0.00	0.00	0.00
<b>Pond Value</b>	538.23	373.03	1,000.00	466.57
<b>Stumpage</b>	352.95	178.81	797.73	249.32
<b>Amortized</b>	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Summary Wild Rice Sale 341-07-37

## Amortized

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

## Unamortized

	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
MBF	2,421.00	206.00	7.00	54.00
Value	352.95	178.81	797.73	249.32
Total	854,491.95	36,834.86	5,584.11	13,463.28

## Gross Timber Sale Value

**Recovery \$910,374.20**

Prepared by: Karen Tilley

Date: 10/9/06

District: Forest Grove

Phone: (503) 359-7434



# PROJECT COST SUMMARY SHEET

Timber Sale: Wild Rice

## CONSTRUCTION

### Project No. 1

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
B to C	14 + 95	\$3,503.20
B to D	14 + 52	\$3,417.90
29 + 47 stations		
0.56 miles		

**SUBTOTAL CONSTRUCTION** **\$6,921.10**

## IMPROVEMENTS

### Project No. 1

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	4 + 30	\$661.30
4 + 30 stations		
0.08 miles		

**SUBTOTAL IMPROVEMENTS** **\$661.30**

## SPECIAL PROJECTS

**Project No. 2** Grass seed and fertilize  
areas of disturbed soil. \$295.20

**SUBTOTAL SPECIAL PROJECTS** **\$295.20**

## MOVE IN

**\$1,548.00**

**TOTAL ALL PROJECTS** **\$9,425.60**

**TOTAL CREDITS** **\$9,426.00**

## SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Wild Rice</u>	Road:	<u>A to B</u>
Construction -	<u>0+00</u> stations	Improvement -	<u>4+30</u> stations
	<u>0.00</u> miles		<u>0.08</u> miles

### CLEARING AND GRUBBING -

Scattering	0.40 acres @ \$760.00 per acre =	<u>\$304.00</u>
	<b>TOTAL CLEARING AND GRUBBING</b>	<b>\$304.00</b>

EXCAVATION -

Road	4.30	sta @	\$67.00	per sta =	\$288.10	
Grade and roll	0.08	mi @	\$865.00	per mi =	<u>\$69.20</u>	
				TOTAL EXCAVATION		<b>\$357.30</b>

## SPECIAL PROJECTS

Grass seed and fertilize areas of disturbed soil.	0.20 acres x \$180 / acre	\$36.00
		\$0.00
		\$0.00
		\$0.00
TOTAL SPECIAL PROJECTS		\$36.00

**TOTAL COST = \$697.30**

## SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Wild Rice</u>	Road:	<u>B to C</u>
Construction -	<u>14+95</u> stations	Improvement -	<u>0+00</u> stations
	<u>0.28</u> miles		<u>0.00</u> miles
<u>CLEARING AND GRUBBING -</u>			
Scattering	1.47 acres @	\$950.00 per acre =	<u>\$1,396.50</u>
	TOTAL CLEARING AND GRUBBING		<b>\$1,396.50</b>
<u>EXCAVATION -</u>			
Road	14.95 sta @	\$110.00 per sta =	\$1,644.50
Landing	2.00 sta @	\$110.00 per sta =	\$220.00
Grade and roll	0.28 mi @	\$865.00 per mi =	<u>\$242.20</u>
	TOTAL EXCAVATION		<b>\$2,106.70</b>
<u>SPECIAL PROJECTS</u>			
Grass seed and fertilize areas of disturbed soil.	0.73 acres x \$180 / acre		\$131.40
			<u>\$0.00</u>
			<u>\$0.00</u>
			<u>\$0.00</u>
	TOTAL SPECIAL PROJECTS		<b>\$131.40</b>
	TOTAL COST =		<b><u>\$3,634.60</u></b>

## SUMMARY OF CONSTRUCTION COST

Timber Sale: Wild Rice Road: B to D

Construction - 14+52 stations  
0.28 miles

Improvement - 0+00 stations  
0.00 miles

### CLEARING AND GRUBBING -

Scattering 1.43 acres @ \$950.00 per acre = \$1,358.50  
TOTAL CLEARING AND GRUBBING **\$1,358.50**

### EXCAVATION -

Road 14.52 sta @ \$110.00 per sta = \$1,597.20  
Landing 2.00 sta @ \$110.00 per sta = \$220.00  
Grade and roll 0.28 mi @ \$865.00 per mi = \$242.20  
TOTAL EXCAVATION **\$2,059.40**

### SPECIAL PROJECTS

Grass seed and fertilize areas of disturbed soil. 0.71 acres x \$180 / acre \$127.80  
\$0.00  
\$0.00  
\$0.00  
TOTAL SPECIAL PROJECTS **\$127.80**

**TOTAL COST = \$3,545.70**

## TIMBER SALE SUMMARY

Wild Rice

341-07-37

1. **Type of Sale:** clearcut, recovery, sealed bid auction
2. **Revenue Distribution:** 100% BOF, Washington County
3. **Sale Acreage:** Area 1 is 93 acres determined by traverse using a Garmin GPS unit.
4. **Volume:**

Species	2 Saw %	3 Saw %	4 Saw %	Volume
Douglas-fir	44	43	13	2,421 MBF
western redcedar		100		7 MBF
other conifers	40	45	15	206 MBF
hardwoods		9	91	54 MBF
Total				2,688 MBF

5. **Cruise Data:** The area was variable plot cruised for the land exchange by Atterbury cruisers. A BAF of 40 was used with 43 plots installed. Data from plots within the sale boundary was combined using the Superace 98 program. The sale was cruised in July 2001. Ten percent ingrowth was added to the volumes. Conifer and hardwood merchantable tops were measured to maximize the value of the sort and grade. Cruise statistics for Douglas-fir: CV 65.6%, SE10%.

6. **Timber Description:** 56 year old Douglas-fir. The average Douglas-fir is 15 inches DBH and 24 MBF per acre.

7. **Topography and Logging Method:** 30% cable logging and 70% ground logging. The slopes range up to 65%.

8. **Access:** Access is from the Timber road to the Cochran road to the Rice road. There is a new multi-landowner locked gate at the beginning of the Rice road.

9. **Projects:**

Project No. 1 consists of constructing and improving 0.64 miles of road costing \$7,582.40 for sale access.

Project No. 2 consists of grass seeding and fertilizing at a cost of \$295.20.

Move in cost is \$1,548.00.

Total credit for all projects is \$9,426.00.

## Wild Rice CRUISE REPORT

1. **Acreage Calculation:** The total net acres available for harvest in Area I are 93. The acreage was determined by a GPS traverse and Geographic Information System.

2. **Cruise Method:** The sale area was variable plot cruised for the land exchange by Atterbury Consultants, Inc. The data from plots within the sale boundary were combined using the SuperACE 98 cruising program. The log grades were assigned based on log scale diameters listed in the Species-Sort-Grade SuperACE report.

3. **Sampling Intensity:**

	Doug fir
CV	65.6
SE	10
No. of plots	43

4. **Form Factors:** Form factors were measured or estimated at 16 feet.

5. **Height Standards:** The merchantable heights of conifers and hardwoods measured or estimated to the nearest foot.

6. **Diameter Standards:** Diameters were measured outside bark to the nearest inch.

7. **Grading System:** All trees were graded favoring 40-foot segments.

8. **Merchantable Top:** Conifer and hardwood merchantable tops were measured to a Top Diameter Factor of .4. \*

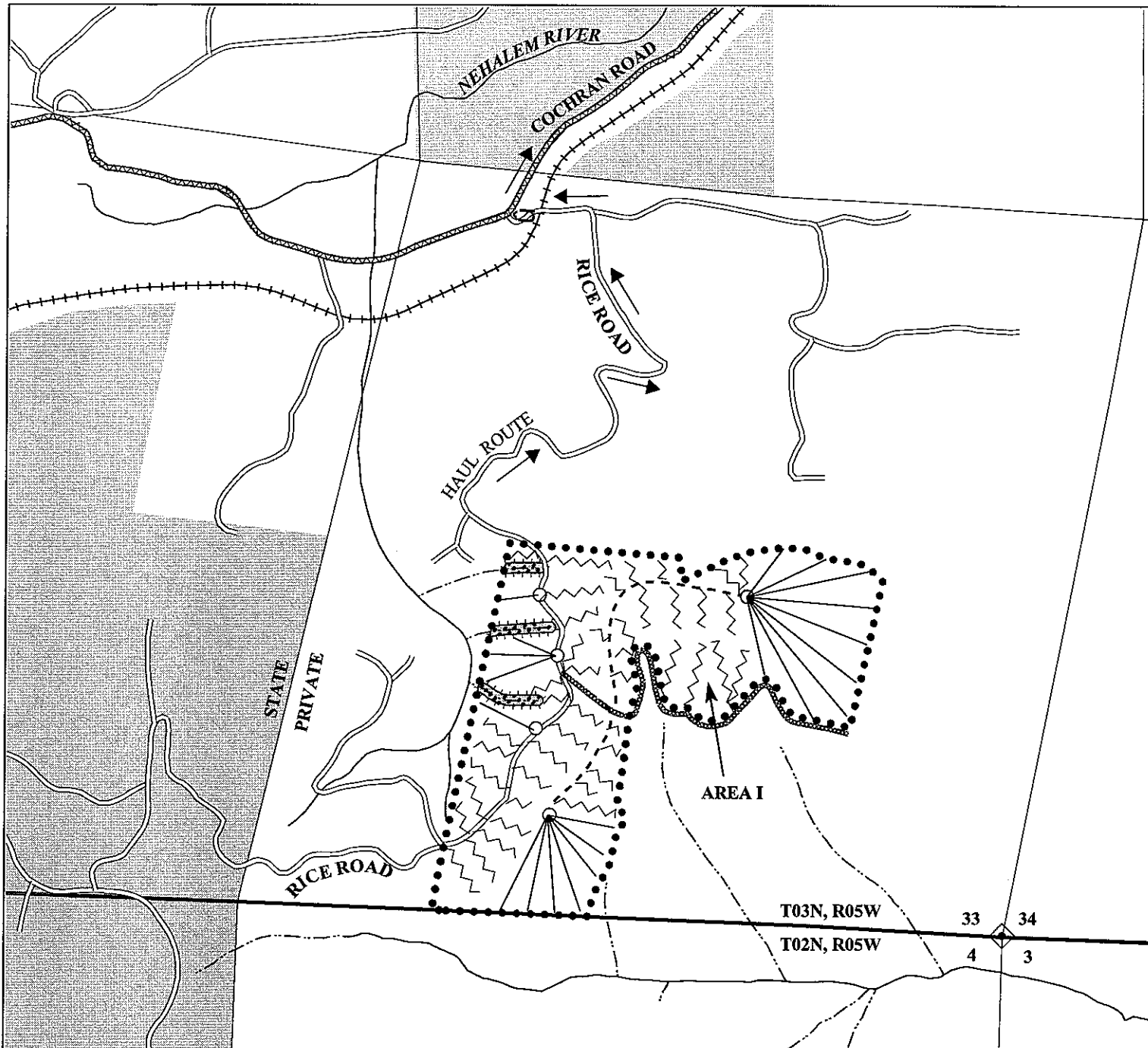
9. **Computation Procedures:** Volumes were computed using the SuperACE 98 program. Ten percent ingrowth was added to account for changes to the timber during the five years between the cruise and the auction.

10. **Cruisers:** The sale area was cruised by Atterbury Consultants, Inc. in July 2001.

Preparer: Karen Tilley 8/4/06  
Mike Haasken and Karen Tilley Date

Unit Forester: Erik Marcy 8/4/06  
Erik Marcy Date

\* "Top Diameter Factor ... is the ratio of diameter outside the bark at some point on the upper bole to the diameter outside the bark at form point. The ratio is expressed as a single digit decimal fraction... A "TD" of .4 is normally used in second growth." from SUPER Accurate Cruise Extension, Version 6.0 by Atterbury Consultants, Inc.



### LEGEND

- Timber Sale Boundary
- ⊙ Estimated Landing Locations
- △ Proposed Cable Yarding
- ⋈ Proposed Tractor Yarding
- ══ Surfed Existing Road
- ══ County Road
- ══ Abandoned Road
- - - - Unsurfaced Road Construction
- ++++ Railroad
- Type F Stream
- - - - Type N Stream
- ▨ Posted Stream Buffer
- ▨ ODF Ownership

### Logging Plan

OF TIMBER SALE CONTRACT NO. 341-07-37  
WILD RICE  
PORTION OF SECTION 33, T03N, R05W, W.M.,  
WASHINGTON COUNTY, OREGON

#### APPROXIMATE NET ACREAGE

AREA I	93 ACRES
TOTAL	93 ACRES



Scale  
1:12000

1 Inch = 1000 Feet

