



# Timber Sale Appraisal Cost Summary Osweg Combination Sale 341-04-36

"STEWARDSHIP IN FORESTRY"

District: Astoria

Date: 11/7/03

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$638,791.36	\$86,846.20	\$725,637.56
		<b>Project Work</b>	(\$112,869.00)
		<b>Advertised Value</b>	\$612,768.56



# Timber Sale Appraisal Timber Description Osweg Combination Sale 341-04-36

"STEWARDSHIP IN FORESTRY"

District: Astoria

Location: Portions of Sections 1, 2, 11, and 16, of T4N, R7W, W.M., Clatsop County, Oregon

Date: 11/7/03

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	18	0	97
Western Hemlock / Fir	14	0	97
White Fir	17	0	97
Sitka Spruce	14	0	97
Red Cedar	16	0	97
Alder (Red)	15	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	White Fir	Sitka Spruce	Red Cedar	Alder (Red)	Total
2S	1,305	77	17	0	0	0	1,399
3S	798	173	20	13	0	322	1,326
4S	111	64	4	13	1	18	211
<b>Total</b>	<b>2,214</b>	<b>314</b>	<b>41</b>	<b>26</b>	<b>1</b>	<b>340</b>	<b>2,936</b>

**Comments:** Pond Values Used: 3rd Quarter 2003

Log Markets: Mist, Clatskanie, Tillamook

Additional Costs with P&R:

100% branding and painting:  $\$1/\text{MBF} \times 2,936 \text{ MBF} = \$2,936$

Additional cutting costs for thinning (bucking tops, tipping/girdling tail lift trees, etc.):

$\$5/\text{MBF} \times 1,705 \text{ MBF} = \$8,525$

Additional costs for cable corridor layout:  $\$3/\text{MBF} \times 1,705 \text{ MBF} = \$5,115$

Total Cost w/ P&R =  $\$16,576$

Costs without P&R:

Slash piling at Area 2 cable landings:  $\$65/\text{hour} \times 2 \text{ hours/landing} \times 4 \text{ landings} = \$520$

Site prep slash piling in Area 2:  $40 \text{ hrs} \times \$95/\text{hr} + \$500 \text{ (one mobilization)} = \$4,300$

Vacating dirt spur 2A to 2B after slash piling:  $\$45/\text{sta} \times 17.8 \text{ sta} = \$801$

Privy (toilet) rental on Area 1 for 3 months @  $\$78/\text{mo.} = \$234$

Total Non-P&R Costs:  $\$5,855$



# Timber Sale Appraisal

## Logging Conditions

### Osweg Combination

### Sale 341-04-36

"STEWARDSHIP IN FORESTRY"

**Combination#: 1**

Douglas - Fir	43.33%	
Western Hemlock / Fir	57.13%	
White Fir	45.66%	
Sitka Spruce	72.00%	
Alder (Red)	45.42%	

**Yarding Distance:** Medium (800 ft)      **Downhill Yarding:** No

**Logging System:** Cable: Medium Tower >40 - <70      **Process:** Manual Delimiting

**Tree Size:** Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF

**Loads/Day:** 5      **Bd. Ft./Load:** 4,000

**Cost/MBF:** \$165.83

**Machines:**  
 Log Loader (A)  
 Tower Yarder (Medium)

**Combination#: 2**

Douglas - Fir	12.22%	
Western Hemlock / Fir	16.11%	
White Fir	12.88%	
Sitka Spruce	20.31%	
Alder (Red)	12.81%	

**Yarding Distance:** Short (400 ft)      **Downhill Yarding:** Yes

**Logging System:** Track Skidder      **Process:** Manual Falling/Delimiting

**Tree Size:** Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF

**Loads/Day:** 6      **Bd. Ft./Load:** 4,000

**Cost/MBF:** \$136.06

**Machines:**  
 Log Loader (B)  
 Track Skidder

**Combination#: 3**

Douglas - Fir	28.89%	
Western Hemlock / Fir	17.39%	
White Fir	26.95%	
Sitka Spruce	5.00%	
Red Cedar	65.00%	
Alder (Red)	27.15%	

**Yarding Distance:** Medium (800 ft)      **Downhill Yarding:** No

**Logging System:** Cable: Medium Tower >40 - <70      **Process:** Stroke Delimber

**Tree Size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**Loads/Day:** 8      **Bd. Ft./Load:** 4,000

**Cost/MBF:** \$102.58

**Machines:**

Log Loader (A)  
Stroke Delimber (A)  
Tower Yarder (Medium)

<b>Combination#:</b> 4	Douglas - Fir	15.56%
	Western Hemlock / Fir	9.36%
	White Fir	14.51%
	Sitka Spruce	2.69%
	Red Cedar	35.00%
	Alder (Red)	14.62%

<b>Yarding Distance:</b> Medium (800 ft)	<b>Downhill Yarding:</b> Yes
<b>Logging System:</b> Track Skidder	<b>Process:</b> Feller Buncher
<b>Tree Size:</b> Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
<b>Loads/Day:</b> 8	<b>Bd. Ft./Load:</b> 4,000
<b>Cost/MBF:</b> \$109.96	

**Machines:**

Feller Buncher w/ Delimber  
Log Loader (B)  
Stroke Delimber (B)  
Track Skidder



# Timber Sale Appraisal Logging Costs Osweg Combination Sale 341-04-36

"STEWARDSHIP IN FORESTRY"

Date: 11/7/03

Operating Seasons: 2.0

Profit & Risk: 13%

Project Costs: \$112,869

Other Costs (P/R): \$16,576

Slash Disposal: \$0

Other Costs: \$5,855

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

Road Maintenance: \$4.58

### Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	4.0
White Fir	\$0.00	3.0	4.0
Sitka Spruce	\$0.00	3.0	4.0
Red Cedar	\$0.00	3.0	4.0
Alder (Red)	\$0.00	1.0	3.5



# Timber Sale Appraisal Logging Costs Breakdown Osweg Combination Sale 341-04-36

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	White Fir	Sitka Spruce	Red Cedar	Alder (Red)
<b>Logging</b>	135.23	144.80	136.84	155.12	105.16	136.68
<b>Road Maintenance</b>	4.72	4.72	4.72	4.72	4.72	4.82
<b>Fire Protection</b>	2.09	2.09	2.09	2.09	2.09	0.00
<b>Hauling</b>	39.54	39.54	39.54	39.54	39.54	138.37
<b>Other (P/R appl.)</b>	6.39	6.39	6.39	6.39	6.39	0.00
<b>Profit &amp; Risk</b>	24.44	25.68	24.65	27.02	20.53	36.38
<b>Slash Disposal</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Scaling</b>	2.00	2.00	2.00	2.00	2.00	2.00
<b>Other</b>	2.26	2.26	2.26	2.26	2.26	0.00
<b>Total</b>	216.67	227.48	218.49	239.14	182.69	318.25

<b>Amortization</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Pond Value</b>	487.86	307.56	475.00	315.00	925.00	573.68
<b>Stumpage</b>	271.19	80.08	256.51	75.86	742.31	255.43
<b>Amortized</b>	0.00	0.00	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Summary Osweg Combination Sale 341-04-36

**Amortized**

	Douglas - Fir	Western Hemlock / Fir	White Fir	Sitka Spruce	Red Cedar	Alder (Red)
<b>MBF</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Value</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00

**Unamortized**

	Douglas - Fir	Western Hemlock / Fir	White Fir	Sitka Spruce	Red Cedar	Alder (Red)
<b>MBF</b>	2,214.00	314.00	41.00	26.00	1.00	340.00
<b>Value</b>	271.19	80.08	256.51	75.86	742.31	255.43
<b>Total</b>	600,414.66	25,145.12	10,516.91	1,972.36	742.31	86,846.20

**Gross Timber Sale Value**

**Recovery \$725,637.56**

Prepared by: Diana Ison

Date: 11/7/03

District: Astoria

Phone: (503) 325-5451



### Road Maintenance Cost Summary

**Sale:** Osweg Combination  
**Date:** 29-Aug-03  
**By:** D. Ison

**MBF:** 2,936  
**\$/MBF:** \$4.58

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Progressive Operations Entries (1)	Grader 14G	\$540	1	16	\$80	\$1,820
	Dump Truck 12CY x 2	\$114	2	16	\$57	\$1,140
	FE Loader C966	\$540	1	8	\$75	\$1,140
Final Haul Road Maintenance Haul Route	Grader 14G	\$540	1	30	\$80	\$2,940
	Dump Truck 12CY x 3	\$114	2	20	\$57	\$1,368
	FE Loader C966	\$540	1	10	\$75	\$1,290
	Vibratory Roller	\$540	1	20	\$75	\$2,040
	Water Truck 2,500 gallon	\$132	1	20	\$67	\$1,472
	Labor			10	\$25	\$250
<b>Total</b>						<b>\$13,460</b>

Production Rates  
 Grader  
 Vibratory Roller\*

Miles/day	Distance(miles)	Days
1.5	2.5	1.7
1.5	2.5	1.7

\*Final Road Maintenance Only

**SUMMARY OF ALL PROJECT COSTS**

**SALE NAME:** Osweg Combination

**NEW CONSTRUCTION:**

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1	1A-1B, 1C-1D	62.8	\$64,938
	2A-2B, 3A-3B		
	<b>TOTALS</b>	62.80	<b>\$64,938</b>

**ROAD IMPROVEMENT:**

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1	I1-I2	136.00	\$5,923
	<b>TOTALS</b>	136.0	<b>\$5,923</b>

**SPECIAL PROJECTS:**

	<u>Description</u>	<u>Cost</u>
Project No. 2	Fishhawk Creek Bridge Vacating/Enhancement	\$6,631
Project No. 3	Roadside Brushing	\$19,821
	Road Maintenance (project work)	\$7,330
	<b>TOTALS</b>	<b>\$33,782</b>

**MOVE IN:**

	<u>Equipment</u>	<u>Cost</u>
	Dozer (D8 x 2)	\$1,960
	Dump Trucks (10 cy x 4)	\$456
	Dump Trucks (20 cy x 4)	\$536
	Dump Truck (25cy Off-Road)	\$540
	F E Loader (C966)	\$540
	Grader (14G)	\$540
	Vibratory Roller	\$540
	Log Truck (Project No. 2 - Stream Enhancement)	\$57
	Water Truck (2,500 gallon)	\$132
	Excavator (C325 x 3)	\$2,700
	Road Brusher	\$225
	<b>TOTAL</b>	<b>\$8,226</b>

**GRAND TOTAL** **\$112,869**

Compiled By: Ty Williams

Date: 10/22/2003

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SURFACING		Stations/ amount	x	Rate/ sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	45.00	x	\$15.20	\$684.00
	Subgrade Compaction	45.00	x	\$12.50	\$562.50
2A-2B (dirt)	Grade and Shape 14' outslope	17.80	x	\$11.20	\$199.36
			x		

ROAD SEGMENT 1A to 1B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1A to 1B Volume (CY) per	0+00 to 23+40 Number of			
Base Rock	6"-0" Pit-run		10	station 63	stations 23.40	1,474	\$10.25	\$15,111
Traction Rock	3/4"-0" Crushed	0+00-2+50	3	station 19	stations 2.50	48	\$6.08	\$289
Traction Rock	3/4"-0" Crushed	16+00-20+20	3	station 19	stations 4.20	80	\$6.08	\$485
Turn Outs	6"-0" Pit-run		10	turnout 28	turnouts 2	56	\$10.25	\$574
Junctions	6"-0" Pit-run		10	junction 30	junctions 1	30	\$10.25	\$308
Junctions	3/4"-0" Crushed		3	junction 24	junctions 1	24	\$6.08	\$146
Turn-Arounds	6"-0" Pit-run		10	TA 30	TAs 1	30	\$10.25	\$308
Curve Widening	6"-0" Pit-run		10	N/A	N/A	64	\$10.25	\$656
Curve Widening	3/4"-0" Crushed		3	N/A	N/A	30	\$6.08	\$182
Landings	6"-0" Pit-run		N/A	Landing 80	Landings 1	80	\$10.25	\$820
Total Rock for Road Segment		1A to 1B				1,916		\$18,878

ROAD SEGMENT 1C to 1D		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1C to 1D Volume (CY) per	0+00 to 13+40 Number of			
Base Rock	6"-0" Pit-run		10	station 63	stations 13.40	844	\$10.25	\$8,653
Turn Outs	6"-0" Pit-run		10	turnout 28	turnouts 1	28	\$10.25	\$287
Junctions	6"-0" Pit-run		10	junction 30	junctions 1	30	\$10.25	\$308
Turn-Arounds	6"-0" Pit-run		10	TA 30	TAs 1	30	\$10.25	\$308
Landings	6"-0" Pit-run		N/A	Landing 80	Landings 2	160	\$10.25	\$1,640
Total Rock for Road Segment		1C to 1D				1,092		\$11,195

ROAD SEGMENT 3A to 3B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	3A to 3B Volume (CY) per	0+00 to 8+20 Number of			
Base Rock	6"-0" Pit-run		10	station 63	stations 8.20	517	\$10.25	\$5,295
Turn Outs	6"-0" Pit-run		10	turnout 28	turnouts 2	56	\$10.25	\$574
Junctions	6"-0" Pit-run		10	junction 30	junctions 1	30	\$10.25	\$308
Turn-Arounds	6"-0" Pit-run		10	TA 30	TAs 1	30	\$10.25	\$308
Landings	6"-0" Pit-run		N/A	Landing 80	Landings 1	80	\$10.25	\$820
Total Rock for Road Segment		3A to 3B				713		\$7,304

Processing:		Description	No. sta	Rate/sta	Cost
		Water, Process & Compact Pit-run Rock (10" roads in 2 lifts)	90.00	\$37.00	\$3,330
		Water, Process & Compact Crushed Rock (3/4"-0" rock)	6.70	\$37.00	\$248
SUB TOTAL FOR SURFACING					\$42,153

SPECIAL PROJECTS		Description	Cost
SUB TOTAL FOR SPECIAL PROJECTS			\$0

<b>GRAND TOTAL</b>	Cost per Mile	\$54,598	<b>\$64,938</b>
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Compiled By: Ty Williams Date: 8/13/2003



SURFACING		Stations/ amount	x	Rate/ sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	136.00	x	\$15.20	\$2,067.20
	Subgrade Compaction	136.00	x	\$12.50	\$1,700.00

ROAD SEGMENT		I1 to I2		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I2	0+00 to 136+00	Volume (CY) per	Number of			
Subgrade Leveling	3/4"-0" Crushed		N/A					150	\$6.08	\$912
Subgrade Leveling	1 1/2"-0" Crushed		N/A					200	\$6.08	\$1,216
Total Rock for Road Segment:				I1 to I2				350		\$2,128

Processing:		Description	No. sta	Rate/sta	Cost
<b>SUB TOTAL FOR SURFACING</b>					<b>\$5,896</b>

SPECIAL PROJECTS		Description	Cost
<b>SUB TOTAL FOR SPECIAL PROJECTS</b>			<b>\$0</b>

**GRAND TOTAL** Cost per Mile \$4,980 **\$5,923**

Compiled By: Ty Williams

Date: 8/13/2003



PIT RUN ROCK COST

SALE NAME: Osweg Combination  
 PROJECT: No. 1  
 QUARRY: Spruce Run

ROCK TYPE: pit-run

DATE: 7/31/2003  
 BY: Ty Williams

Segment	Stations	Cubic Yards							Total
		Base	Landing	Turnout	Turnaround	Junction	Widening	Ditch line	
1A-1B	23.20	1,474	80	56	30	30	20	1,690	
1C-1D	13.40	844	160	28	30	30		1,092	
3A-3B	8.20	517	80	56	30	30		713	
Grand Total	44.80	2,835	320	140	90	90	20	3,495	

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
1A-1B	23.20	1,690	4.50		6.40		1.20		0.40	12.50
1C-1D	13.40	1,092	4.50		6.40		1.20		0.90	13.00
3A-3B	8.20	713	4.50		6.40		2.10		0.50	13.50
TOTAL	44.80	3,495								
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL			4.50		6.40		1.38		0.58	AVERAGE HAUL 12.86

Average Round Trip Distance (miles) 25.72

ROCK HAUL:

Truck type: D20 No. trucks: 4  
 Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: \_\_\_\_\_  
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: 4  
 Delay min.: 5 Efficiency: 85%

Ave haul: \$5.86 /cy  
 Load: \$0.60 /cy  
 Spread: \$0.50 /cy  
 Develop: \$3.29

Production: cy/day = 676

PIT RUN ROCK HAUL COSTS 3,495 cy @ \$10.25 /cy



**PROJECT NO. 2  
FISHHAWK CREEK BRIDGE REMOVAL  
AND STREAM ENHANCEMENT**

7/9/2003

Sale: Osweg Combination  
By: d.mellison

WORK DESCRIPTION	Hourly Rates	Unit	\$/unit	Equipment/Labor					Total
				Cat 325 Exc	Cat 325 L. Lder	Log Truck	Labor/ Operator	Dump Truck	
				\$115	\$115	\$57	\$25	\$57	
<b>Bridge Removal</b>									
Open road to bridge (both sides)				2					
Exc/expose strngs (both sides)				1					
Travel from Vespr Rd to far side				1					
Purchase Shrimp netting (ln.ft.)		150	\$2.75						\$413
Rent Containment booms (days)		3	\$50						\$150
Place netting under bridge							2		
Place netting down stream							2		
Cut bridge cables							2		
Remove rub rails				0.5				0.5	
Remove decking				2			4	2	
Remove Cross Ties				4			8	4	
Remove/load stringers/sill logs					4	1			
Block roads both sides				3					
Take down netting/retrieve debris							4		
Sub Total Hours				13.5	4	1	22	6.5	
Seeding & Mulching		0.2	\$1,195						\$239
Sub Total Hourly dollars				\$1,553	\$460	\$57	\$550	\$371	\$2,990
<b>Total Bridge Removal</b>									<b>\$3,792</b>
<b>Stream Enhancement</b>									
Truck bridge stringers to sites						1			
Build trail to site #1, #2, and #3				2					
Unload stringers/sills at each site					2	2			
Remove/place Alders				2			2		
Skid/place stringers/sills				10					
Water bar trails/clean up				3			3		
Sub Total Hours				17	2	3	5		
Sub Total Hourly dollars				\$1,955	\$230	\$171	\$125		
Seeding & Mulching		0.3	\$1,195						\$359
<b>Total Stream Enhancement</b>									<b>\$2,840</b>

**Total Project Cost \$6,631**

## Project No. 3 Roadside Brushing

Segment	Length (Miles)	Brush Type	Cost/Mile	Cost
B1 - B2	0.70	L	\$980	\$686.00
B1 - B2	0.57	M	\$1,100	\$627.00
B3 - B4	1.98	L	\$980	\$1,940.40
B3 - B4	1.70	M	\$1,100	\$1,870.00
B3 - B4	0.29	H	\$1,300	\$377.00
B5 - B6	0.88	L	\$980	\$862.40
B5 - B7	0.16	L	\$980	\$156.80
B8 - B9	0.17	L	\$980	\$166.60
B10 - B11	0.22	L	\$980	\$215.60
B12 - B13	0.31	L	\$980	\$303.80
B14 - B15	0.01	H	\$1,300	\$13.00
B16 - B17	5.40	L	\$980	\$5,292.00
B17 - B18	1.40	L	\$980	\$1,372.00
B17 - B18	0.60	M	\$1,100	\$660.00
B17 - B18	0.75	H	\$1,300	\$975.00
B19 - B20	0.03	H	\$1,300	\$39.00
B21 - B22	1.52	H	\$1,300	\$1,976.00
B23 - B24	0.51	H	\$1,300	\$663.00
B25 - B26	0.16	H	\$1,300	\$208.00
B27 - B28	0.74	H	\$1,300	\$962.00
B29 - B30	0.17	H	\$1,300	\$221.00
B31 - B32	0.03	H	\$1,300	\$39.00
B33 - B34	0.15	H	\$1,300	\$195.00
<b>Total Miles</b>	<b>18.45</b>		<b>Total Project Cost</b>	<b>\$19,821</b>

L = Light Brush \$980

M = Medium Brush \$1,100

H = Heavy Brush \$1,300

**Road Maintenance after completion of Projects**

**Sale:** Osweg Combination  
**Date:** 13-Jul-03  
**By:** Ty Williams

Spruce Run Quarry to Highway 26 (6.2 miles), Flat Iron Stockpile to Quartz Creek Jct. (.71 miles)  
 Total Miles =6.93

Type	Equipment/Rationale			Hours	Rate	Cost
Final Haul Road Maintenance Haul Route	Grader 14G			50	\$80	\$4,000
	Dump Truck 12CY x 5			50	\$57	\$2,850
	FE Loader C966			10	\$48	\$480
<b>Total</b>						<b>\$7,330</b>

Production Rates  
 Grader  
 Vibratory Roller

Miles/day	Distance(miles)	Days
1.5	6.9	4.6
1.5	6.9	4.6

**TIMBER CRUISE REPORT**  
**Osweg Combination**  
**FY 2004**

1. **Sale Area Location:** Areas 1, 2, and 3 are located in portions of Sections 1, 2, 11, and 16, of T4N, R7W, W.M., Clatsop County, Oregon.
2. **Fund Distribution:** BOF 100%  
Tax Code = 8-01 - 190 acres (100%)
3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	New R/W	Stream Buffer	Non-Thinnable	Net Acres	Survey Method
1	SDI 35 Thinning	119	2.9	2.8	3.8	5.5	104.0	GIS
2	Clearcut	43.8	0	1.9	1.9	0	40.0	GIS
3	SDI 35 Thinning	44	0	0.8	3.2	0	40.0	GIS
4 R/W	Sale Access	6					6.0	L X W
<b>TOTALS</b>		<b>207</b>	<b>2.9</b>		<b>8.9</b>	<b>5.5</b>	<b>190.0</b>	

4. **Cruisers and Cruise Dates:** Areas 1 – 3 were cruised by Lanny Freeman, Diana Ison, Jenny Laughman, Jon Long, and Ty Williams in July and August, 2003.

5. **Cruise Method and Computation:** AREAS 1 and 3 are "auto-mark" thinning units (SDI 35) and were variable plot cruised using a 20 BAF. These plots are located on a 5 chain by 5 chain grid. A total of 58 plots were sampled, with 24 plots measured and graded, 24 count plots, and 10 blank plots. All "take" and "leave" trees were measured and graded with the "biggest and best" left to meet a target residual basal area of 140 ft.<sup>2</sup>/ acre.

AREA 2 is a clearcut unit and was variable plot cruised using a 40 BAF. These plots are located on a 3 chain by 3 chain grid. Every other plot was measured and graded. A total of 53 plots were sampled, with 27 measured and graded plots, and 26 count plots.

AREA 4 R/W, Sale Access volume was calculated by multiplying R/W acreage and the total volume per acre from the plots in Areas 1 – 3. Area 4 also includes approximately 0.5 acres of R/W at the Spruce Run Quarry needed for quarry access.

All cruises used Corvallis MicroTechnology (CMT) data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

<u>AREA</u>	<u>CRUISE</u>	<u>CRUISE TYPE</u>
1 & 3	SDI 30-35 Auto-mark Thinning	04N07WSEC02TYPE:PCTK
2	Clearcut	04N07WSEC01TYPE:A2
4 R/W	Sale Access	04N07WSEC02TYPE:PC R/W and TYPE:CC R/W

6. **Timber Description:** Areas 1 and 3 are "auto-mark" thinning units, ranging between 40 to 56 years old, consisting primarily of Douglas-fir dominated mixed conifer stands with small isolated clumps of hardwoods. These stands will be harvested to an SDI of 35, removing approximately 72 trees per acre and 11.8 MBF/acre. The average "take" tree size is 15.5" DBH and 60 feet to a merchantable top (6" d.i.b.).

Area 2 is a clearcut unit primarily 40 to 56 year old Douglas-fir with a small patch (3 acres) of 33 year old conifer. The Douglas-fir averages 20.5" DBH, with an average height of 68 feet to a merchantable top (6" d.i.b.). The average alder tree size is 14" DBH and 34 feet to a merchantable top (8" d.i.b.).

The average volume per acre to be harvested (net) is 26.1 MBF.

Area 4 (R/W) was determined by combining all trees in Areas 1-3. This is a Douglas-fir dominated mixed stand which contains a small amount of hemlock, cedar, true fir, and hardwoods. This stand averages 17.9 inches in DBH, with an average merchantable height of 65 feet to a merchantable top. The average volume (net) is 32.8 MBF/acre. Area 4 also includes approximately 0.5 acres of R/W at the Spruce Run Quarry needed for quarry access.

**7. Statistical Summary:** (See "Statistics" - Type Reports, attached)

Statistics for Stand B.F. Volumes

Area	Target CV	Target SE%	Actual CV	Actual SE%
1 and 3	60%	8%	34.1%	4.5%
2	55%	8%	61.3%	8.4%

**8. Volumes by Species and Log Grade:** (See "Species, Sort, Grade, Length%" - Type and Project Reports, attached, of individual sale areas and combined areas and three cruise types)

Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	D & B	% Sale
Douglas-fir	18"	2,214	1,305	798	111	12	76
Hemlock	14"	314	77	173	64	0	10
Alder	15"	340	---	322	18	0	12
Spruce	14"	26	---	13	13	0	<1
Silver fir	17"	40	16	20	4	0	1
Noble fir	17"	1	1	---	---	0	<1
Cedar	16"	1	---	---	1	0	--
<b>TOTALS</b>		<b>2,936</b>	<b>1,400</b>	<b>1,326</b>	<b>210</b>	<b>12</b>	

**9. Approvals:**

Prepared by: Diana Ison

Date: August 13, 2003

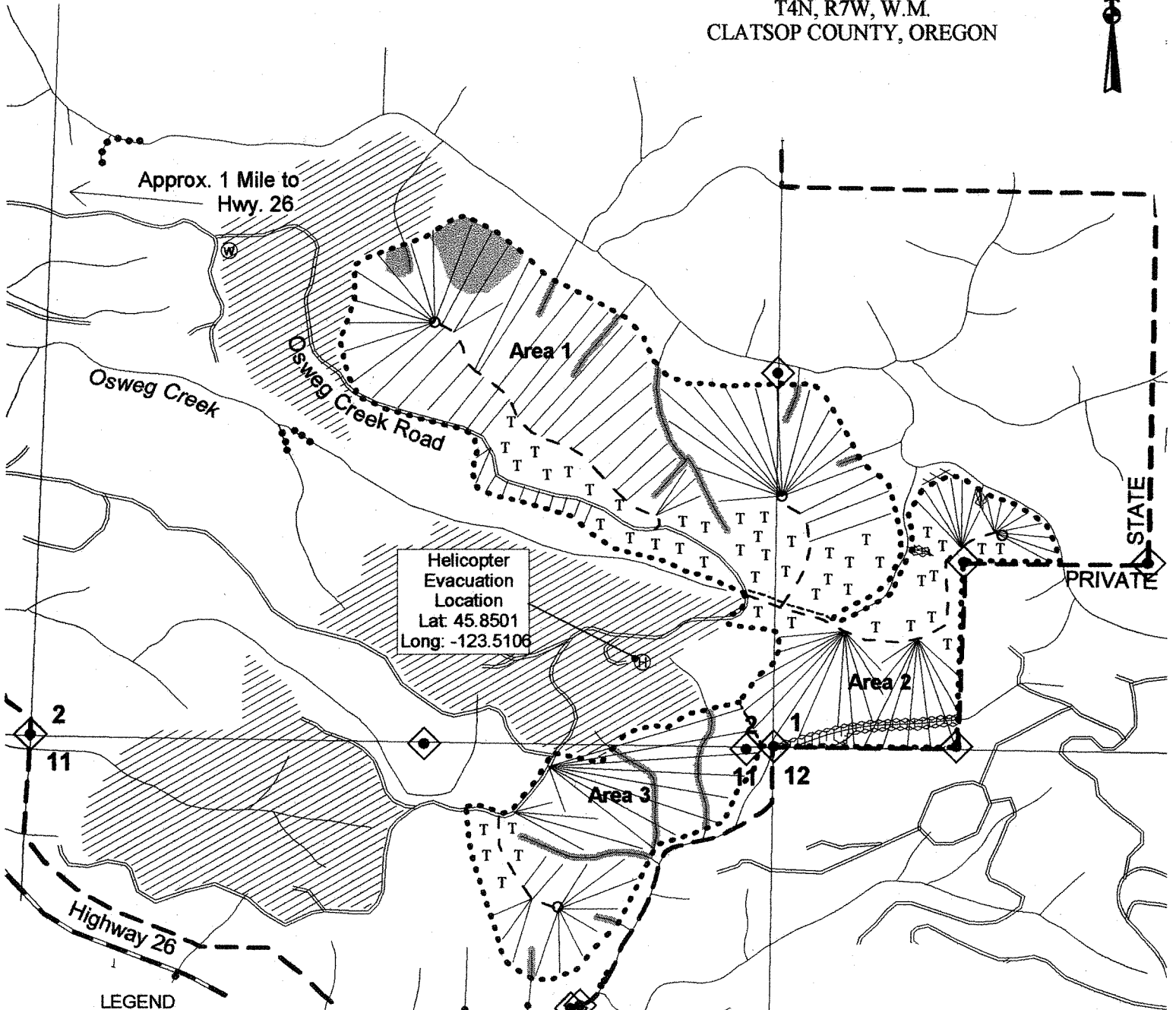
Reviewed by: *Dan Goody*

Date: 9/17/03

**10. Attachments:**

- Cruise Designs (2)
- Cruise Maps (2)
- Volume Reports - 6 pages
- Statistics Reports - 10 pages
- Stand Tables - 4 pages
- Log Stock Tables - 5 pages

**LOGGING PLAN MAP**  
 OF TIMBER SALE CONTRACT NO. 341-04-36  
 OSWEG COMBINATION  
 PORTIONS OF SECTIONS 1, 2, 11, AND 16,  
 T4N, R7W, W.M.  
 CLATSOP COUNTY, OREGON



**LEGEND**

- ..... Timber Sale Boundary
- Area Boundary
- State Forest Property Line
- New Construction Roads
- ⊙ New Construction Landings
- Existing Surfaced Roads
- Non-thinnable Type
- Green Tree Retention Area
- Unposted Stream Buffer
- Posted Stream Buffer
- Buffer Zone Boundary
- Reforestation Area
- Pt. "AA"
- Known Land Survey Corner
- Type F Stream
- Type N Stream
- Cable Logging Area
- Tractor Logging Area

LOGGING BREAKDOWN		
AREA	TRACTOR	CABLE
1	26%	74%
2	35%	65%
3	10%	90%
4(R/W)	100%	0%

**APPROXIMATE NET ACREAGE:**

- Area 1 (PC) - 104 Acres
- Area 2 (CC) - 40 Acres
- Area 3 (PC) - 40 Acres
- Area 4 (R/W) - 6 Acres
- Total = 190 Acres

Revised August, 2002

**CRUISE DESIGN  
ASTORIA DISTRICT**

Sale Name: OSWEG COMBINATION Area(s) 1 & 3

Harvest Type: PC

Approx. Cruise Acres: 178 Estimated CV% 60 Net BF SE% Objective 8 Net BF 12.3 MBF

Planned Sale Volume: 2.2 MMBF Estimated Sale Area Value/Acre: \$3,816

**A. Cruise Goals:** (a) Grade minimum 150 take trees:

Sample 36 grade plots, 34 count plots. Grade plots are circled on the map. The leave tree basal area target for Areas 1 and 3 is 140 sq. ft. Leave 7 trees per plot. Mark all leave trees with a "L" on all grade plots. Record hardwoods and cedar as leave trees. Hardwoods shall be cruised and graded, but do not count towards the prescribed basal area. Do not take plots in large hardwood types over ½ acre, or within 25 feet of live streams. Map alder types along cruise line so that non thinnable acres can be subtracted from the cruise. Hardwoods shall be cruised and graded. Grade all hardwoods as 3 saw. Determine **snag** and **leave tree** species and sizes; X.

**B. Cruise Design:**

1. **Plot Cruises:** BAF 20 (Full point; Half point) 20 BAF = B1

Cruise Line Direction(s) Areas 1 & 3 East and West, 90'

Cruise Line Spacing Areas 1 & 3 = 5 (chains)

Cruise Plot Spacing Areas 1 & 3 = 5 (chains)

Grade/Count Ratio All Areas 1:2

**C. Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.

Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

2. **Bole Length:** Record bole length to nearest foot at TCD.

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" or 40% of dob at 16' form point for conifers. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh. Minimum top outside bark is 9" for hardwoods. Allow for mossy TCD on hardwoods.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to

maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)  
B. Sort: Use code "1" (Domestic).  
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull

**7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.  
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.

**9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape, Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Machete, and Gloves.

- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale).  
B. Data Recorder Instructions  
C. Other

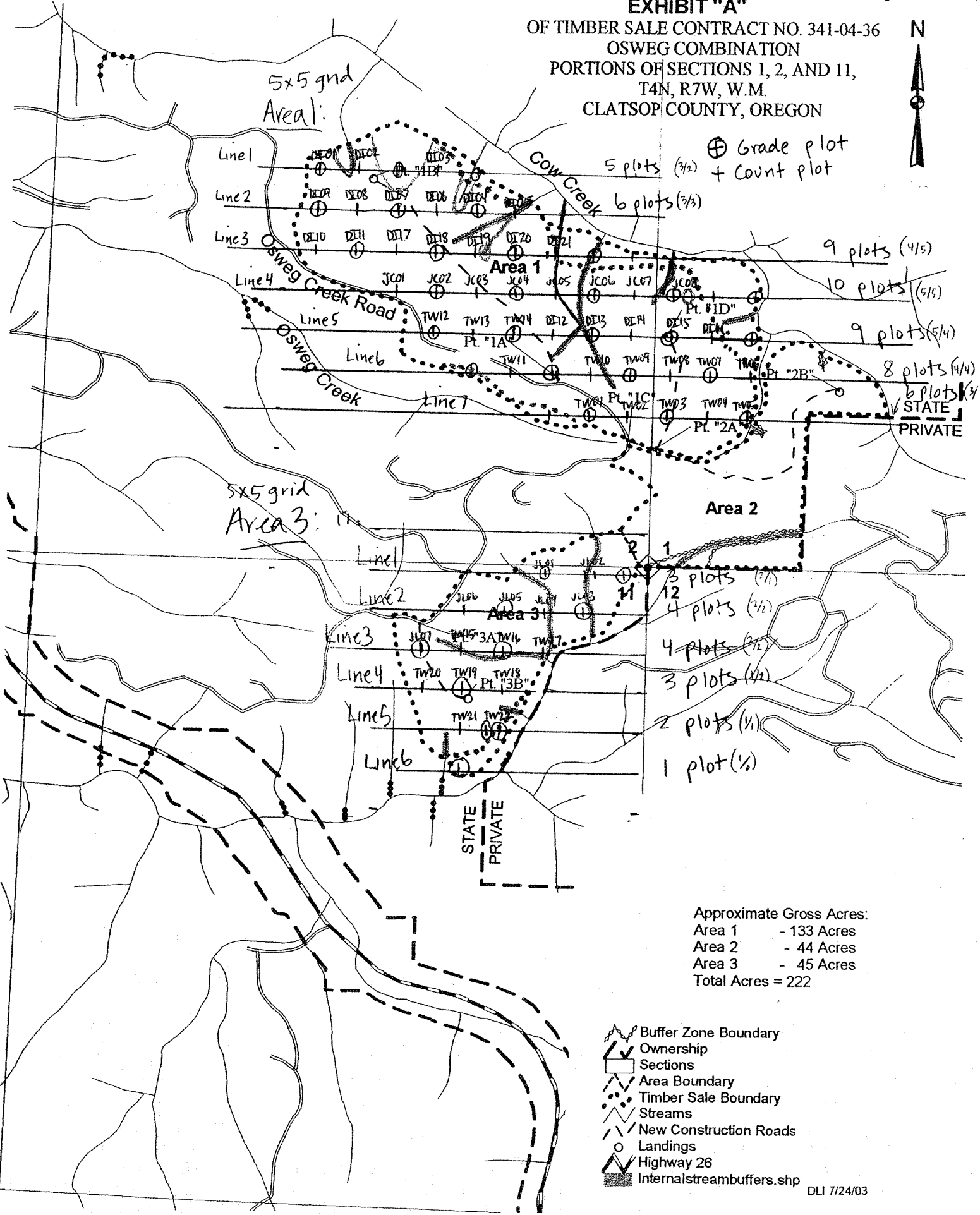
Cruise Design by: D. Ison

Approved by: Dan Coody

Date: 7-24-03



**EXHIBIT "A"**  
 OF TIMBER SALE CONTRACT NO. 341-04-36  
 OSWEG COMBINATION  
 PORTIONS OF SECTIONS 1, 2, AND 11,  
 T4N, R7W, W.M.  
 CLATSOP COUNTY, OREGON



⊕ Grade plot  
 + Count plot

- 5 plots (3/2)
- 6 plots (3/3)
- 9 plots (4/5)
- 10 plots (5/5)
- 9 plots (5/4)
- 8 plots (4/4)
- 6 plots (3/3)
- 5 plots (2/1)
- 12 plots (3/2)
- 4 plots (2/2)
- 4 plots (2/2)
- 3 plots (3/2)
- 2 plots (1/2)
- 1 plot (1/2)

Approximate Gross Acres:  
 Area 1 - 133 Acres  
 Area 2 - 44 Acres  
 Area 3 - 45 Acres  
 Total Acres = 222

- Buffer Zone Boundary
- Ownership
- Sections
- Area Boundary
- Timber Sale Boundary
- Streams
- New Construction Roads
- Landings
- Highway 26
- Internalstreambuffers.shp

**CRUISE DESIGN  
ASTORIA DISTRICT**

Sale Name: OSWEG COMBINATION Area(s) 2

Harvest Type: CC

Approx. Cruise Acres: 44 Estimated CV% 55 Net BF SE% Objective 8 Net BF 25 MBF

Planned Sale Volume: 1.1 MMBF Estimated Sale Area Value/Acre: \$8,500

**A. Cruise Goals:** (a) Grade minimum 120 trees:

Sample 27 grade plots, 24 count plots. Grade all hardwoods as 3 saw. Determine **snag** and **leave tree** species and sizes; X

**B. Cruise Design:**

1. **Plot Cruises:** BAF 40 (Full point; Half point) 40 BAF = 82  
Cruise Line Direction(s) Area 2 East and West Az. 90'  
Cruise Line Spacing Area 2 = 3 (chains)  
Cruise Plot Spacing Area 2 = 3 (chains)  
Grade/Count Ratio All Areas 1:2

**C. Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods. Record dbh to nearest  $\frac{1}{2}$ " for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
2. **Bole Length:** Record bole length to nearest foot at TCD.
3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" or 40% of dob at 16' form point for conifers. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh. Minimum top outside bark is 9" for hardwoods. Allow for mossy TCD on hardwoods.
4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)  
B. Sort: Use code "1" (Domestic).  
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull

**7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

**8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.  
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.

**9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape, Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Machete, and Gloves.

**10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

B. Data Recorder Instructions

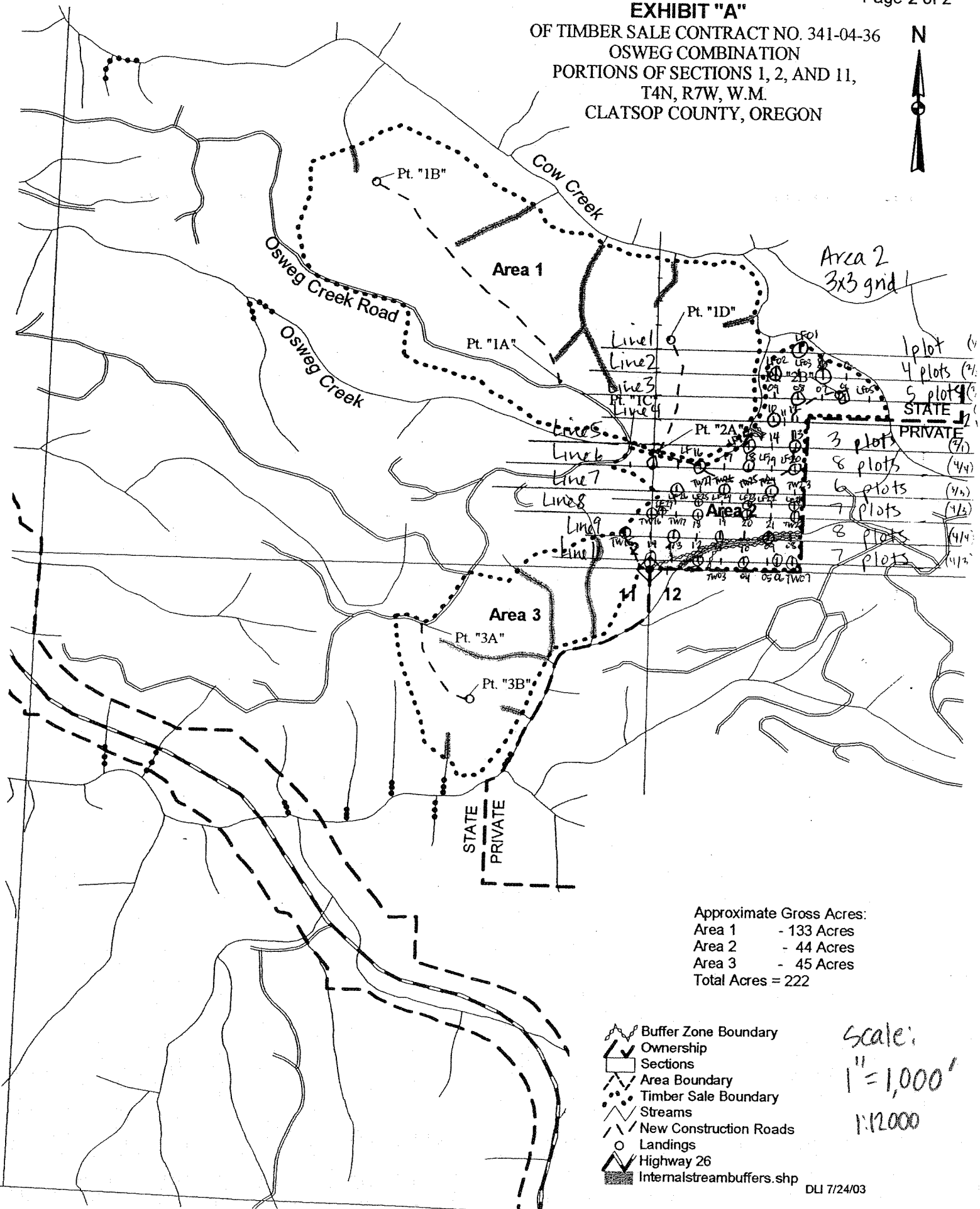
C. Other

Cruise Design by: D. Ison

Approved by: Dan Grody

Date: 7-24-03

**EXHIBIT "A"**  
 OF TIMBER SALE CONTRACT NO. 341-04-36  
 OSWEG COMBINATION  
 PORTIONS OF SECTIONS 1, 2, AND 11,  
 T4N, R7W, W.M.  
 CLATSOP COUNTY, OREGON



Area 2  
3x3 grid

1 plot	(1/4)
4 plots	(2/4)
5 plots	(3/4)
STATE	(1/4)
PRIVATE	(7/4)
3 plots	(3/4)
8 plots	(4/4)
6 plots	(6/4)
7 plots	(7/4)
8 plots	(4/4)
7 plots	(1/4)

Approximate Gross Acres:  
 Area 1 - 133 Acres  
 Area 2 - 44 Acres  
 Area 3 - 45 Acres  
 Total Acres = 222

- Buffer Zone Boundary
- Ownership
- Sections
- Area Boundary
- Timber Sale Boundary
- Streams
- New Construction Roads
- Landings
- Highway 26
- Internal stream buffers.shp

Scale:  
 1" = 1,000'  
 1:12000

**FOREST PRACTICES ACT "WRITTEN PLAN"**  
**For Harvesting within 100 feet of a Type D Stream**  
**Osweg Combination**

**Landowner:** Oregon Department of Forestry  
92219 Hwy 202  
Astoria, OR 97103  
(503) 325-5451

**Protected Resources:**

Osweg Creek is a small Type N and D Stream located in Section 11, T4N, R7W, W.M. The boundary of Area 1 parallels this stream for approximately 1,600 feet. This stream feeds the Elderberry Community Watershed.

**Specific Site Characteristics:**

Osweg Creek: The streambed is approximately 1 foot wide, with moderate streambank slopes. Streamside vegetation is dominated by mature alder and conifer trees.

**Tree and Vegetation Retention:**

The FPA defines the RMA width of a small, Type D stream at 20 feet. In all of the specified harvest areas, all trees and shrubs within the posted buffers will be retained and left undamaged. In Area 1 (partial cut), the timber sale boundary is posted between 25 feet to well over 100 feet from the Type D stream. This posted boundary exceed the FPA requirements.

Additionally, within the partial cut units, a target of 140 square feet of basal area retention of the largest trees will provide sufficient shade and large down wood potential.

**Practices:**

Along all of the above mentioned streams, as well as any live streams, the following practices are required, under the timber sale contract, to protect the streams and streamside areas:

- No trees will be felled within posted stream buffers (RMA's).
- Trees adjacent to the posted stream buffers (RMA's) will be felled away from or parallel to the streams to prevent trees from entering the aquatic areas.
- No ground based logging equipment will be permitted within the posted RMA's nor within 50 feet of any live stream.
- When cable logging is conducted nearby the RMA's, logging lines may cross, but will not be lowered into the RMA's during yarding, except during rigging. During rigging the lines must be pulled out of the RMA's when changing corridors.
- PURCHASER is required to provide a privy and require all operators to use this privy while working in the watershed area. Requirements are detailed in Exhibit "L" of the timber sale contract.

**Attachments:** Logging Plan Map

Submitted: \_\_\_\_\_  
Purchaser/Operator Contract Representative

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
State Lands Forester

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
Forest Practices Forester

Date: \_\_\_\_\_

**FOREST PRACTICES ACT "WRITTEN PLAN"**  
**For Hanging over a Type F Stream**  
**Osweg Combination**

**Landowner:** Oregon Department of Forestry  
92219 Hwy 202  
Astoria, OR 97103  
(503) 325-5451

**Protected Resources:**

Quartz Creek is a medium Type F Stream located along the southwest boundary of Area 3 (partial cut), in Section 11, T4N, R7W, W.M. Area 3 parallels the stream for approximately 600 feet before the stream becomes a Type N.

**Specific Site Characteristics:**

Quartz Creek: The streambed is approximately 3 feet wide, with moderate to steep streambank slopes. Streamside vegetation is dominated by mature alder and brush, with a significant component of conifer trees, which are mostly located above the flood plain.

**Tree and Vegetation Retention:**

The FPA defines the RMA width of a medium, Type F stream at 70 feet. In all of the specified harvest areas, all trees and shrubs within the posted buffers will be retained and left undamaged. The timber sale boundary for Area 3 (partial cut) is posted at least 100 feet from the Type F stream. This posted boundary well exceeds the FPA requirements. Additionally, within the partial cut units, a target of 140 square feet of basal area retention of the largest trees will provide sufficient shade and large down wood potential.

**Practices:**

Along all of the above mentioned streams, as well as any live streams, the following practices are required, under the timber sale contract, to protect the streams and streamside areas:

- No trees will be felled within posted stream buffers (RMA's).
- Trees adjacent to the posted stream buffers (RMA's) will be felled away from or parallel to the streams to prevent trees from entering the aquatic areas.
- No ground based logging equipment will be permitted within the posted RMA's nor within 50 feet of any live stream.
- When cable logging is conducted nearby the RMA's, logging lines may cross, but will not be lowered into the RMA's during yarding, except during rigging. During rigging the lines must be pulled out of the RMA's when changing corridors.

**Attachments:** Logging Plan Map

Submitted: \_\_\_\_\_  
Purchaser/Operator Contract Representative

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
State Lands Forester

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
Forest Practices Forester

Date: \_\_\_\_\_

**“Written Plan” for Stream Enhancement**  
**Osweg Combination Timber Sale**

**Landowner:** Oregon Department of Forestry  
92219 Hwy 202  
Astoria, OR 97103  
(503) 325-5451

**Planned Operation:**

Stream enhancement project recommended by ODFW fisheries biologist to be performed in conjunction with adjacent bridge removal. Three structures will be created for stream enhancement. Each structure will be created by placing 2-3 bridge stringers or sill logs in Warner Creek from the vacated Fishhawk Bridge. This work will be accomplished using a 1½ cubic yard, track mounted excavator to place logs into Warner Creek as part of the Osweg Timber Sale. Locations have been selected by Dave Plawman, ODFW fisheries biologist, and are as indicated on the attached Exhibit A.

**Protected Resources:**

Warner Creek, which is designated as a medium Type F stream at locations SE1, SE2, and SE3. (approximately 1,000 feet of stream).

**Description of Area:**

- Operation is located in the Coast Range Geographic Region
- Upland vegetation: Mixed Douglas Fir, and Western Hemlock 56-66 years old.
- RMA vegetation: Red Alder similar age, Salmonberry, with scattered conifer clumps.
- Streamside slopes range from 0% to 10% and the streambed ranges from 20 to 25 feet wide.

**Planned Resource Protection Measures:**

- 1) Work shall be conducted only during periods of low water flows and between July 1 and August 31 annually.
- 2) There is no machine in stream activity planned.
- 3) A minimum 1½ cubic yard track mounted excavator shall be used for the removal of stringers and sills.
- 4) Erosion control measures shall be applied to all bare or disturbed soils.

**Attachments:** Exhibit A

Submitted: \_\_\_\_\_  
Purchaser/Operator Contract Representative

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
State Lands Forester

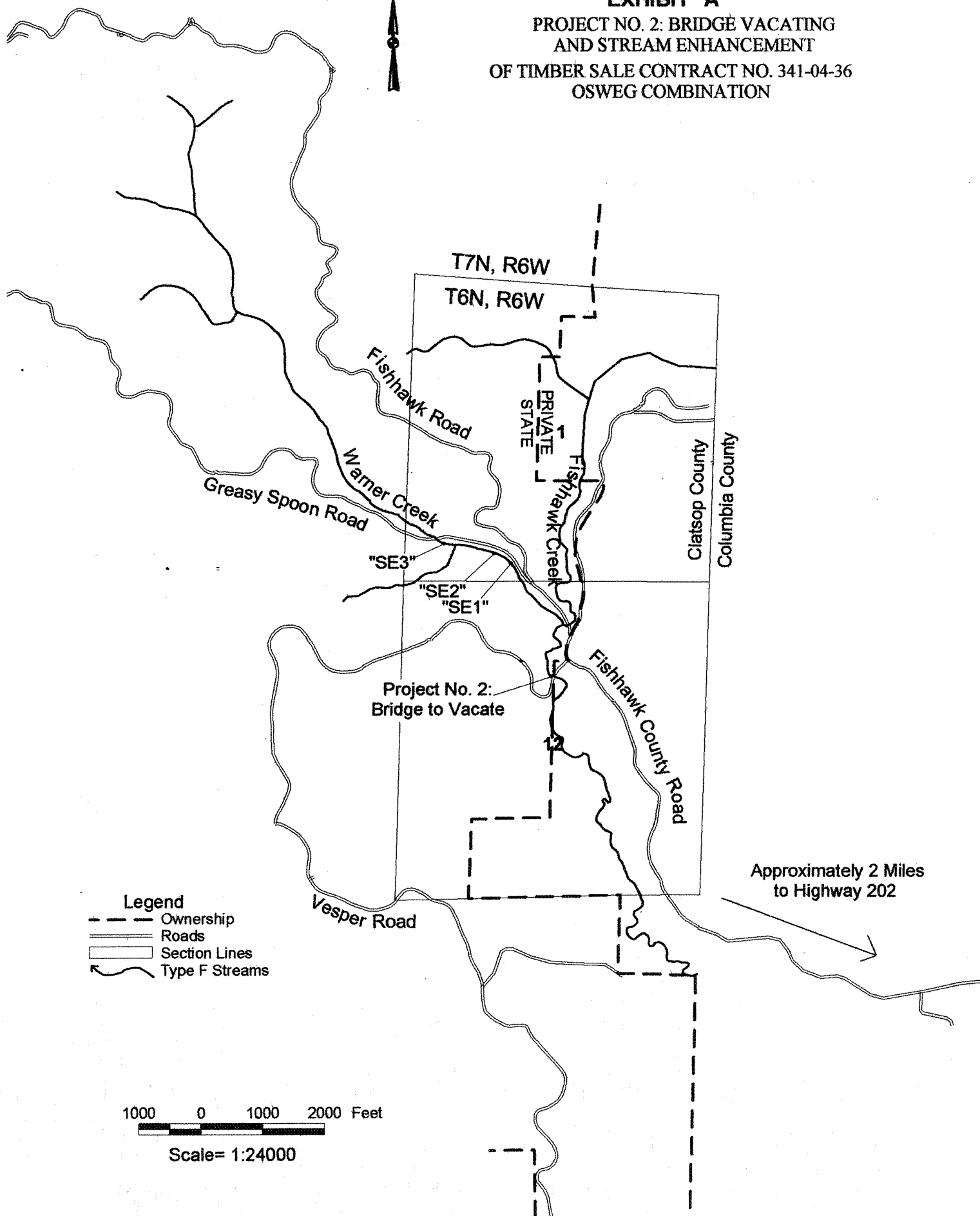
Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_  
Forest Practice Forester

Date: \_\_\_\_\_

Original: Salem  
CC: Purchaser, Operator, District, Jewell Unit

**EXHIBIT "A"**  
**PROJECT NO. 2: BRIDGE VACATING**  
**AND STREAM ENHANCEMENT**  
**OF TIMBER SALE CONTRACT NO. 341-04-36**  
**OSWEG COMBINATION**



- Legend**
- Ownership
  - == Roads
  - ▭ Section Lines
  - ~ Type F Streams

1000 0 1000 2000 Feet



Scale= 1:24000



**FOREST PRACTICES ACT "Written Plan" for Bridge Removal**  
**Osweg Combination Timber Sale**

**Landowner:** Oregon Department of Forestry  
92219 Hwy 202  
Astoria, OR 97103  
(503) 325-5451

**Protected Resources:**

Fishhawk Creek is a large Type F stream, located in the N½, Section 12, T6N, R6W, W.M., Clatsop County, Oregon and indicated on Exhibit "A" as "Bridge to Vacate". A "written plan" is required for any activities within 100 feet of any Type F stream.

**Situation:**

An existing log stringer bridge located on a portion of road that is presently blocked to vehicular traffic represents a potential public hazard, is no longer useable for vehicular traffic and needs to be removed. The bridge cross ties are treated material, and in time the bridge if left in place may collapse with treated woody material entering Fishhawk Creek.

**Planned Resource Protection Measures:**

- 1) Work shall be conducted only during periods of low water flows and between July 1 and August 31 annually.
- 2) There is no machine in stream activity planned.
- 3) A minimum 1½ cubic yard, track mounted excavator shall be used for the removal of stringers and sills.
- 4) Erosion control measures shall be applied to all bare or disturbed soils.
- 5) Treated bridge materials are to be kept from entering Fishhawk Creek during the bridge removal process.

**Attachments:** Exhibit A

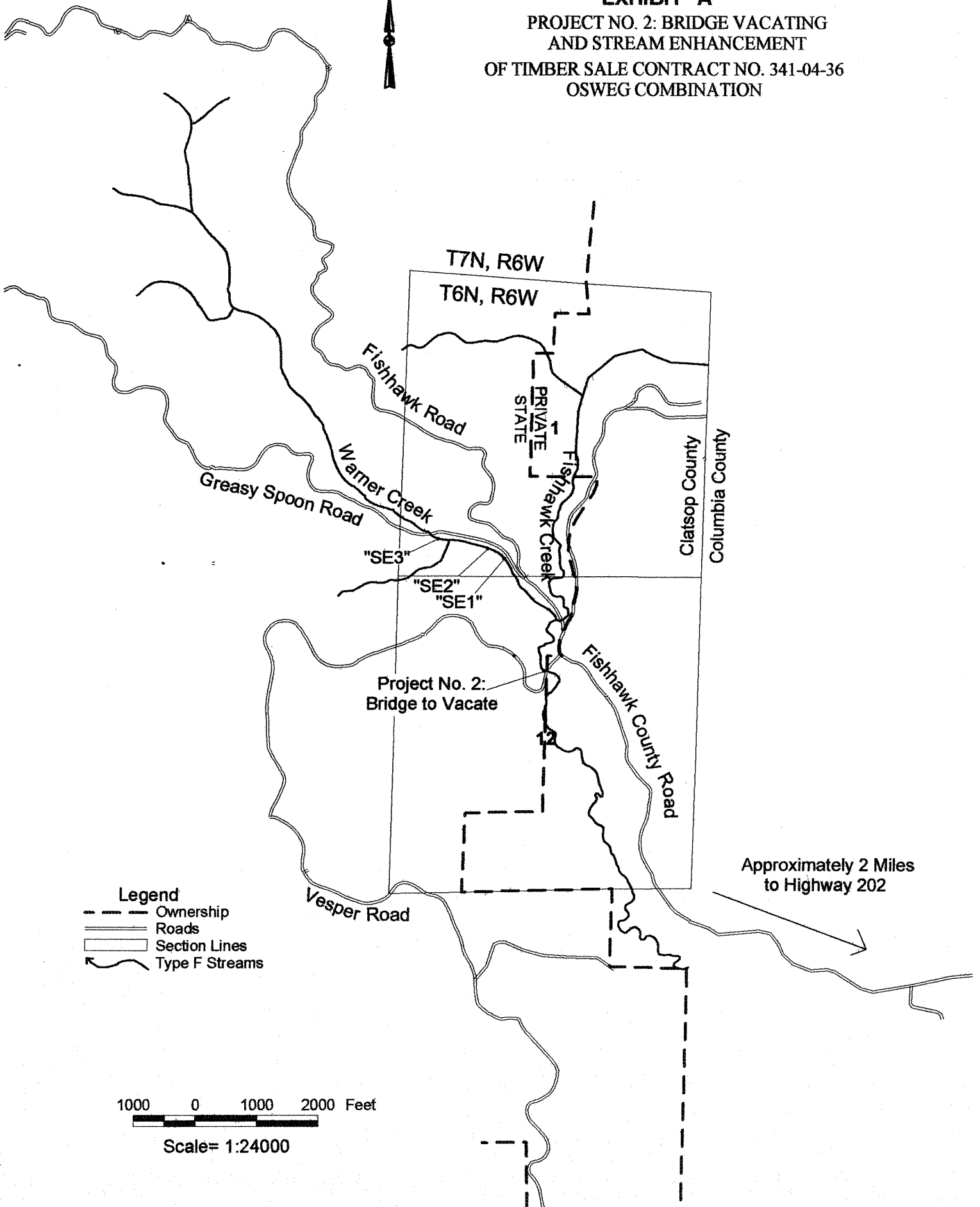
Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
Purchaser/Operator Contract Representative

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_  
State Lands Forester

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_  
Forest Practice Forester

Original: Salem  
CC: Purchaser, Operator, District, Jewell Unit

**EXHIBIT "A"**  
**PROJECT NO. 2: BRIDGE VACATING**  
**AND STREAM ENHANCEMENT**  
**OF TIMBER SALE CONTRACT NO. 341-04-36**  
**OSWEG COMBINATION**



- Legend**
- Ownership
  - Roads
  - Section Lines
  - Type F Streams

1000 0 1000 2000 Feet  
Scale= 1:24000