



Timber Sale Appraisal  
Fall Ridge  
Sale 341-10-57

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: October 09, 2009

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$175,693.74	\$178,033.24	\$353,726.98
		<b>Project Work:</b>	\$(28,210.00)
		<b>Advertised Value:</b>	\$325,516.98



"STEWARDSHIP IN FORESTRY"

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District: Tillamook

Date: October 09, 2009

**timber description**

**Location:** Portions of Sections 15 and 22, T3N, R9W, W.M., Tillamook County, Oregon.

**Stand Stocking:** 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	17	0	95
Western Hemlock / Fir	18	0	95
Alder (Red)	16	0	90
Maple	14	0	90

Volume by Grade	(10" - 11"	(12"+) 2S	(8" - 9") 4	2S	3S	4S	6" - 7"	Total
Douglas - Fir	0	0	0	1,053	261	147	0	1,461
Western Hemlock / Fir	0	0	0	101	36	25	0	162
Alder (Red)	260	596	124	0	0	0	260	1,240
Maple	0	24	30	0	0	0	20	74
Total	260	620	154	1,154	297	172	280	2,937



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comments: Pond Values Used: 3rd Quarter Calendar Year 2009.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost  
 $\$500/\text{MBF} = \$740/\text{MBF} - \$240/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit & Risk to be added):

Brand and Paint:  $\$1/\text{MBF} \times 2,937 \text{ MBF} = \$ 2,937$

TOTAL Other Costs (with Profit and Risk to be added) = \$2,937

Other Costs (No Profit & Risk added):

Flagging on Foss Road:

1 month @ 168 hours/month x \$28/hour x 2 flaggers = \$ 9,408

TOTAL Other Costs (No Profit & Risk added) = \$9,408

ROAD MAINTENANCE

Interim Maintenance:  $\$250/\text{Mile} \times 4.5 \text{ miles} \times 1 \text{ grading}/2,937\text{MBF} =$   
 $\$0.38/\text{MBF}$

Maintenance Rock:  $(\$7.55/\text{cu. yd.} \times 4.5 \text{ miles} \times 25 \text{ cu.}$   
 $\text{yd./MMBF/mile} \times 2.937 \text{ MMBF})/2,937 \text{ MBF} = \$0.85/\text{MBF}$

Final Maintenance:

Grading -  $\$500/\text{Mile} \times 4.5 \text{ miles} \times 1 \text{ grading}/2,937 \text{ MBF} = \$ .77/\text{MBF}$

TOTAL Maintenance Cost = \$2.00/MBF



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Fall Ridge Sale 341-10-57

District: Tillamook

Date: October 09, 2009

## logging conditions

**combination#: 1**

Douglas - Fir	100.00%
Western Hemlock / Fir	35.00%

<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 Felling/Delimiting
<b>tree size:</b> Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
<b>loads / day:</b> 7.4	<b>bd. ft / load:</b> 4,000
<b>cost / mbf:</b> \$124.78	

**machines:** Log Loader (A)  
Tower Yarder (Large)

**combination#: 2**

Western Hemlock / Fir	10.00%
Alder (Red)	100.00%
Maple	80.00%

<b>yarding distance:</b> Medium (800 ft)	<b>downhill yarding:</b> No
<b>logging system:</b> Cable: Large Tower >=70	<b>Process:</b> Stroke Delimber
<b>tree size:</b> Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
<b>loads / day:</b> 5.0	<b>bd. ft / load:</b> 3,575
<b>cost / mbf:</b> \$214.08	

**machines:** Log Loader (A)  
Stroke Delimber (A)  
Tower Yarder (Large)

**combination#: 3**

Western Hemlock / Fir	55.00%
Maple	20.00%

<b>yarding distance:</b> Long (1,500 ft)	<b>downhill yarding:</b> No
<b>logging system:</b> Cable: Large Tower >=70	<b>Process:</b> Stroke Delimber
<b>tree size:</b> Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
<b>loads / day:</b> 9.5	<b>bd. ft / load:</b> 4,000
<b>cost / mbf:</b> \$100.81	

**machines:** Log Loader (A)  
Stroke Delimber (A)  
Tower Yarder (Large)



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**logging costs**

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$28,210.00	Other Costs (P/R):	\$2,937.00
Slash Disposal:	\$0.00	Other Costs:	\$9,408.00

**Miles of Road**

Road Maintenance: \$2.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

**Hauling Costs**

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	3.5
Western Hemlock / Fir	\$0.00	3.0	3.4
Alder (Red)	\$0.00	2.0	3.0
Maple	\$0.00	2.0	3.0

**Local Pond Values**

Date	Specie	Grade	Value
10/9/09	Maple	(12"+) 2S	\$495.26
10/9/09	Maple	(10" - 11") 3S	\$495.26
10/9/09	Maple	(8" - 9") 4S	\$495.26
10/9/09	Maple	6" - 7"	\$495.26



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District: Tillamook

Date: October 09, 2009

**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$124.78	\$2.10	\$2.99	\$60.87	\$1.00	\$28.76	\$0.00	\$5.00	\$3.20	\$228.70
<b>Western Hemlock / Fir</b>									
\$120.53	\$2.10	\$2.99	\$62.66	\$1.00	\$28.39	\$0.00	\$5.00	\$3.20	\$225.87
<b>Alder (Red)</b>									
\$214.08	\$2.20	\$2.99	\$111.60	\$1.00	\$49.78	\$0.00	\$5.00	\$3.20	\$389.85
<b>Maple</b>									
\$191.43	\$2.20	\$2.99	\$111.60	\$1.00	\$46.38	\$0.00	\$5.00	\$3.20	\$363.80

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$344.22	\$115.52	\$0.00
Western Hemlock / Fir	\$0.00	\$268.58	\$42.71	\$0.00
Alder (Red)	\$0.00	\$525.58	\$135.73	\$0.00
Maple	\$0.00	\$495.26	\$131.46	\$0.00



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summary

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00
Maple	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	1,461	\$115.52	\$168,774.72
Western Hemlock / Fir	162	\$42.71	\$6,919.02
Alder (Red)	1,240	\$135.73	\$168,305.20
Maple	74	\$131.46	\$9,728.04

**Gross Timber Sale Value**

Recovery: \$353,726.98

Prepared by: David Luttrell

Phone: 503-815-7025



## PROJECT SUMMARY SHEET

Sale: Fall Ridge

### CONSTRUCTION

Point	C to D	16+50	stations =	\$13,418.44
<b>SUBTOTAL CONSTRUCTION</b>				<b>\$13,418.44</b>

### IMPROVEMENT

Point	A to B	46+40	stations =	\$7,478.83
Point	C to D	3+20	stations =	\$3,853.70
<b>SUBTOTAL IMPROVEMENT</b>				<b>\$11,332.53</b>

**MOVE IN** **\$3,229.03**

**GRAND TOTAL** **\$27,980.00**



## Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Fall Ridge**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
50.0	Pavement	30
10.0	Main Lines	7
2.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Graders	\$672.86		\$3.65	0.00	0.00	0	\$0.00	\$672.86
1	Rollers (smooth/grid) & Compactors	\$584.58		\$5.00	0.00	0.00	0	\$0.00	\$584.58
1	Excavators (Large)	\$909.70	1	\$44.80	0.00	0.00	0	\$0.00	\$909.70
1	Tractors (D7)	\$820.88	2	\$11.30	0.00	0.00	0	\$0.00	\$820.88
1	Dump Truck (10 cy +)	\$241.01		\$2.85	0.00	0.00	0	\$0.00	\$241.01
<b>TOTAL MOVE-IN COSTS:</b>									<b>\$3,229.03</b>

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Stockpile:	SW 1/4 Section 10 T3N R9W W.M.
Sale:	<b>Fail Ridge</b>	Location:	Hansen Creek Road Stockpiles
		Stockpile:	1360 c.y.
		Total Truck Loads:	1360 c.y.

Load Rock From Stockpile: \$0.60 /cu.yd. x 1360 cu.yds. = \$816.00

Subtotal \$816.00

Move in Loader	1	@	\$661.41	=	\$661.41
Move in Trucks	4	@	\$192.71	=	\$770.84
Move in Water Truck	1	@	\$226.52	=	\$226.52

Subtotal \$1,658.77

Base Cost=	\$1.82	Per Cu.Yd.	TOTAL PRODUCTION COSTS	\$2,474.77
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Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Spot Rock (Crushed)	3.28	2.45	1.82	7.55	200	\$1,510.00
A to B Turnaround/Landing Rock (Crushed)	3.28	2.45	1.82	7.55	80	\$604.00
C to D 0 1970 (4'-0")	3.41	2.45	1.82	7.68	1080	\$8,294.40
				Total C.Y.	1360	Sub Total <span style="border-bottom: 1px solid black;">\$10,408.40</span>

TOTAL ROCKING COSTS	\$10,408.40
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## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	SW 1/4 Section 15 T3N R9W W.M.
Sale:	<b>Fall Ridge</b>	Road:	420 c.y.
Swell:	1.30	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	420 c.y.
Drill Pct.:	0%	In Place Total:	323 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$780.00

Rip Rock:	\$1.90	/cu.yd.	x	323	cu.yds.	=	\$613.70
Load Dump Truck:	\$0.70	/cu.yd.	x	420	cu.yds.	=	\$294.00

Subtotal \$1,687.70

Move in Excavator	1	@	\$130.00	=	\$130.00
				Subtotal	\$130.00

Base Cost=	\$4.33	Per Cu.Yd.		<b>TOTAL PRODUCTION COSTS</b>	<b>\$1,817.70</b>
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Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Landing Rock (Pit-Run)	1.20	1.40	4.33	6.93	80	\$554.40
A to B Landing Fill Rock (Pit-Run)	1.12	1.40	4.33	6.85	120	\$822.00
C to D Landing Rock (Pit-Run)	1.25	1.40	4.33	6.98	220	\$1,535.60
				Total C.Y.	420	Sub Total <span style="border-top: 1px solid black;">\$2,912.00</span>
						<b>TOTAL ROCKING COSTS</b>
						<b>\$2,912.00</b>

## SUMMARY OF CONSTRUCTION COST

Sale:	<b>Fall Ridge</b>			Road:	<b>A to B</b>			
Construction -	0+00 0.00	stations miles	Improvement -	46+40 0.88	stations miles	Reconstruction -	0+00 0.00	stations miles
<b>IMPROVEMENT: EXCAVATION -</b>								
Ditchline Cleanout				335	cy. @	\$1.40	per c.y.=	\$469.00
							<b>TOTAL EXCAVATION</b>	<b>\$469.00</b>
<b>IMPROVEMENT: ENDHAUL -</b>								
Ditchline Cleanout	0+00	to	46+40	335	cy. @	\$1.40	per c.y.=	\$469.00
Spread & compact				335	cy. @	\$0.25	per c.y.=	\$83.75
							<b>TOTAL ENDHAUL</b>	<b>\$552.75</b>
<b>ROCK</b>								
Spot Rock	Marked in Field		200	cy. of	Crushed	@	\$7.55 per c.y.=	\$1,510.00
Landing Rock	43+00		80	cy. of	Pit-Run	@	\$6.93 per c.y.=	\$554.40
Landing Fill Rock	46+40		120	cy. of	Pit-Run	@	\$6.85 per c.y.=	\$822.00
Turnaround/Landing Rock	46+40		80	cy. of	Crushed	@	\$7.55 per c.y.=	\$604.00
							<b>TOTAL ROCK</b>	<b>\$3,490.40</b>
<b>SPECIAL PROJECTS</b>								
Construct waste areas -			2.00	hours @	\$130.00	per hour	\$260.00	
Construct Landing & TA - 43+00 (Including Exc.&Endhaul)			1.00	lump sum @	\$870.00		\$870.00	
Construct Landing - 46+40			1.00	lump sum @	\$285.00		\$285.00	
Grade and shape road -			46.40	stations @	\$15.50	per station	\$719.20	
Roll subgrade w/ vibratory roller prior to rocking -			46.40	stations @	\$13.20	per station	\$612.48	
Grass seed and fertilize -			1.00	acres @	\$220.00	per acre	\$220.00	
							<b>TOTAL SPECIAL PROJECTS</b>	<b>\$2,966.68</b>
							<b>GRAND TOTAL</b>	<b>\$7,478.83</b>

## SUMMARY OF CONSTRUCTION COST

Sale:

**Fall Ridge**

Road:

**C to D**

Construction -	16+50	stations	Improvement -	3+20	stations	Reconstruction -	0+00	stations
	0.31	miles		0.06	miles		0.00	miles

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=			
3+20		16+50	30%		Outsloped	\$191	=	\$2,540.30		
									<b>TOTAL</b>	<b>\$2,540.30</b>

**IMPROVEMENT:** CLEARING AND GRUBBING -  
Scattering

1.500	acres @	\$980.00	per acre =	\$1,470.00		
					<b>TOTAL CLEARING AND GRUBBING</b>	<b>\$1,470.00</b>

**IMPROVEMENT:** EXCAVATION -  
Road Earthwork

3.20	sta. @	\$50.00	per sta. =	\$160.00		
					<b>TOTAL EXCAVATION</b>	<b>\$160.00</b>

**IMPROVEMENT:** ENDHAUL -

Ditchline	0+00	to	3+20	40	cy. @	\$2.60	per c.y. =	\$104.00
Spread & compact				40	cy. @	\$0.25	per c.y. =	\$10.00

**ROCK**

0+00	to	19+70	1,080	cy. of	4"-0"	@	\$7.68	per c.y. =	\$8,294.40	
Landing Rock		19+70	220	cy. of	Pit-Run	@	\$6.98	per c.y. =	\$1,535.60	
									<b>TOTAL ROCK</b>	<b>\$9,830.00</b>

**SPECIAL PROJECTS**

Grade and shape road -	19.70	stations @	\$20.00	per station	\$394.00					
Roll subgrade w/ vibratory roller prior to rocking -	19.70	stations @	\$13.20	per station	\$260.04					
Remove large stumps -	1.00	lump sum @	\$300.00		\$300.00					
Construct Landing & TA	1.00	@	\$400.00	total	\$400.00					
Grass seed and fertilize -	2.00	acres @	\$220.00	per acre	\$440.00					
									<b>TOTAL SPECIAL PROJECTS</b>	<b>\$3,157.84</b>

**GRAND TOTAL** **\$17,272.14**

Log Stock Table - MBF

T03N R09W S22 Ty0200 15.00  
 T03N R09W S22 Ty0100 116.00

Project: FALLRDG  
 Acres 131.00

Page 1  
 Date 9/30/2009  
 Time 6:41:04AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spe	Net Volume by Scaling Diameter in Inches													
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
RA		8	R	16	19	4.0	18	1.3						5			13					
RA		8	R	18	4		4	.3				4										
RA		8	R	19	4		4	.3				4										
RA		8	R	20	7		7	.5				7										
RA		8	R	21	6		6	.4				6										
RA		8	R	22	3		3	.2				3										
RA		8	R	24	24		24	1.7								24						
RA		8	R	28	25		25	1.8						25								
RA		8	R	30	212	4.6	202	14.3				29	27	50	39	30	27					
RA		8	R	31	7		7	.5				7										
RA		8	R	32	281	5.1	267	18.9				12	16	79	74	61	25					
RA		8	R	34	9		9	.6				9										
RA		8	R	36	306	6.5	286	20.3				50		66	63	107						
RA		8	R	40	389	2.6	379	26.8				126	80	30	103	40						
RA		9	UT	12	23		23	1.6				1		7	16							
RA		9	UT	14	19		19	1.3											19			
RA		9	UT	15	14		14	1.0				14										
RA		9	UT	16	5		5	.4				5										
RA		9	UT	17	3		3	.2				3										
RA		9	UT	19	3		3	.2				3										
RA		9	UT	22	4		4	.2				4										
RA		9	UT	24	43		43	3.1				12	32									
RA		9	UT	25	7		7	.5				7										
RA		9	UT	27	3		3	.2				3										
RA		9	UT	32	48		48	3.4				5		25	19							
RA		Totals			1,478	4.5	1,411	40.7				310	155	286	314	263	64	19				
RA		Totals			18	100.0																
DF		8	2	20	24	8.3	22	1.4							22							
DF		8	2	32	81		81	5.4							16	23	42					
DF		8	2	36	501	1.1	495	33.1							125	94	140	136				
DF		8	2	40	472	3.5	455	30.5							138	39	156	123				
DF		8	3	29	4		4	.3				4										
DF		8	3	31	8		8	.5				8										
DF		8	3	32	52	7.1	48	3.2							48							
DF		8	3	36	95	3.0	92	6.2				4	48	40								

Log Stock Table - MBF

T03N R09W S22 Ty0200 15.00  
 T03N R09W S22 Ty0100 116.00

Project: FALLRDG  
 Acres 131.00

Page 2  
 Date 9/30/2009  
 Time 6:41:04AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spe	Net Volume by Sealing Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DF		8	3	40	109		108	7.2			38	21	39	11							
DF		8	4	14	2		2	.1		2											
DF		8	4	16	2		2	.1			2										
DF		8	4	17	6		6	.4		5	1										
DF		8	4	19	2		2	.1			2										
DF		8	4	20	2		2	.1			2										
DF		8	4	21	3		3	.2			3										
DF		8	4	22	3		3	.2			3										
DF		8	4	23	21		21	1.4		18	3										
DF		8	4	24	6		6	.4		6											
DF		8	4	25	3		3	.2			3										
DF		8	4	26	20		20	1.3		17	3										
DF		8	4	28	5		5	.4		5											
DF		8	4	33	8		8	.5		8											
DF		8	4	34	13		13	.9		13											
DF		8	4	36	41		41	2.8		41											
DF		8	4	38	4		4	.2		4											
DF		8	4	41	8		8	.5		8											
DF		9	UT	16	32		32	2.2					12		21						
DF		9	UT	18	2		2	.2		2											
DF		Totals			1,532	2.4	1,495	43.1		128	74	69	140	310	156	359	259				
DF		Totals			42	100.0															
DF		Totals			9	100.0															
DF		Totals			4	100.0															
WL		8	2	40	22	8.3	20	63.5					20								
WL		8	4	21	2		2	5.8		2											
WL		9	UT	39	10		10	30.8		10											
WL		Totals			34	5.5	32	.9		2	10		20								
WL		Totals			8	100.0															
DL		8	2	36	51	3.0	50	62.1						23					26		
DL		8	3	36	3		3	4.0					3								
DL		8	3	40	26		26	32.1			9								17		

Log Stock Table - MBF

T03N R09W S22 Ty0200 15.00  
 T03N R09W S22 Ty0100 116.00

Project: FALLRDG  
 Acres 131.00

Page 3  
 Date 9/30/2009  
 Time 6:41:04AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spe	Net Volume by Scaling Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DL		8	4	17		2		2	1.9		2										
DL		Totals				82	1.9	80	2.3		2		9	3		23		17	26		
DL		Totals				5	100.0														
SS		8	3	34		18		18	45.2							18					
SS		8	4	23		2		2	5.3		2										
SS		8	4	32		8		8	18.5		8										
SS		9	UT	14		13		13	30.9				13								
SS		Totals				41		41	1.2		8		2	13		18					
OC		Totals				491	100.0														
BM		8	R	24		13		13	14.2				13								
BM		8	R	28		17		17	18.0				17								
BM		8	R	30		20		20	21.1		20										
BM		8	R	32		24		24	26.2					24							
BM		9	UT	12		5		5	5.5				5								
BM		9	UT	15		14		14	15.1				14								
BM		Totals				93		93	2.7		20	44		5	24						
RC		8	3	16		2	12.5	2	1.8						2						
RC		8	3	32		56	13.8	48	48.6								16			33	
RC		8	3	40		37	13.5	32	32.4				5						27		
RC		8	4	24		17		17	17.1		17										
RC		Totals				112	11.6	99	2.9		17			5	2			16	27		33
WH		8	2	32		23	19.6	19	8.6									19			
WH		8	2	36		46	10.7	41	19.2										41		
WH		8	2	40		42	2.2	41	18.9							41					
WH		8	3	32		11	28.6	8	3.6				8								
WH		8	3	36		14	15.4	12	5.6					12							
WH		8	3	40		16		16	7.6				16								
WH		8	4	18		2		2	.8		2										
WH		8	4	19		2		2	.8		2										
WH		8	4	40		22		22	10.1		10	12									
WH		9	UT	16		22	25.0	16	7.6									16			



Log Stock Table - MBF

T03N R09W S22 Ty0200	15.00
T03N R09W S22 Ty0100	116.00

Project: FALLRDG  
 Acres 131.00

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 Date 9/30/2009  
 Time 6:41:04AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spe	Net Volume by Scaling Diameter in Inches													
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
WH		9	UT	25	2		2	1.2				2										
WH		9	UT	40	46	25.0	35	16.1										35				
WH		Totals			267	19.0	216	6.2		10	15	2	24	12	41	70	41					
Total		All Species			4,214	17.7	3,468	100.0		166	432	280	475	670	454	482	380	95			33	

<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">T03N R09W S22 Ty0200</td> <td style="width:30%; text-align: right;">15.00</td> </tr> <tr> <td>T03N R09W S22 Ty0100</td> <td style="text-align: right;">116.00</td> </tr> </table>	T03N R09W S22 Ty0200	15.00	T03N R09W S22 Ty0100	116.00	Project <b>FALLRDG</b>	Time:	6:42:55AM
T03N R09W S22 Ty0200	15.00						
T03N R09W S22 Ty0100	116.00						
Acres		131.00	Grown Year:				

S Spc	T	Sample			Tot			Average Log		Net			Totals			
		DBH	Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Cunits	MBF
DF		8	1	79	42	6.765	2.36	6.76	5.6	20.0	1.08	38	135	141	49	18
DF		10	1	85	50	4.329	2.36	4.33	7.5	30.0	.93	33	130	121	43	17
DF		12	1	86	51	3.007	2.36	3.01	14.3	40.0	1.23	43	120	161	56	16
DF		14	2	84	86	4.418	4.72	6.63	19.1	63.3	3.61	127	420	473	166	55
DF		17	5	84	89	6.961	10.97	13.92	23.0	85.6	9.12	320	1,191	1,195	419	156
DF		18	4	87	99	4.873	8.61	10.61	26.7	101.6	8.06	283	1,078	1,056	371	141
DF		19	1	91	121	1.199	2.36	3.60	27.6	120.0	2.83	99	432	371	130	57
DF		20	1	89	112	.700	1.53	1.40	39.0	140.0	1.55	55	196	204	71	26
DF		21	2	87	109	1.927	4.72	4.84	34.9	131.9	4.81	169	638	630	221	84
DF		22	2	90	111	1.789	4.72	4.47	39.5	170.0	5.03	177	760	660	231	100
DF		23	1	88	112	.818	2.36	1.64	52.9	210.0	2.47	87	344	323	113	45
DF		24	3	86	114	1.989	6.25	5.97	38.2	184.5	6.74	228	1,101	883	299	144
DF		25	2	87	136	1.385	4.72	4.16	52.6	238.3	6.23	218	991	816	286	130
DF		26	1	88	78	.640	2.36	.64	96.1	370.0	1.75	62	237	230	81	31
DF		27	3	87	128	1.782	7.08	4.75	62.1	272.5	8.42	295	1,295	1,102	387	170
DF		29	1	91	140	.515	2.36	1.54	72.9	366.7	3.21	113	566	420	147	74
DF		30	3	85	134	1.440	7.08	4.32	71.2	314.5	8.76	307	1,358	1,148	403	178
DF		32	1	86	126	.423	2.36	1.27	76.6	330.0	2.77	97	419	363	127	55
DF		Totals	35	85	86	44.960	79.31	83.85	32.8	136.1	78.60	2,750	11,411	10,297	3,602	1,495
RA		9	1	87	17	5.345	2.36	5.34	4.6	20.0	.68	25	107	89	32	14
RA		11	1	81	72	3.578	2.36	3.58	15.4	50.0	1.52	55	179	199	72	23
RA		12	3	80	76	9.020	7.08	12.03	13.8	42.5	4.87	165	511	638	217	67
RA		14	3	84	76	6.627	7.08	8.84	21.7	67.5	5.27	192	596	690	251	78
RA		15	5	83	69	8.941	10.97	12.79	22.1	67.0	7.78	283	857	1,019	370	112
RA		16	4	82	80	6.765	9.45	11.84	23.0	77.1	7.47	272	913	979	356	120
RA		17	3	85	72	3.965	6.25	7.93	22.9	82.4	4.98	181	654	653	237	86
RA		18	7	83	86	9.431	16.53	18.86	28.4	98.4	14.73	536	1,856	1,930	702	243
RA		19	4	84	80	4.797	9.45	8.39	36.2	120.0	8.36	304	1,007	1,095	398	132
RA		20	4	84	74	3.947	8.61	5.73	40.9	146.6	6.78	234	840	888	307	110
RA		21	3	85	94	2.945	7.08	6.87	37.8	145.7	7.15	260	1,001	936	340	131
RA		22	6	83	85	5.051	13.33	10.68	40.5	151.7	11.89	432	1,621	1,557	566	212
RA		25	1	83	78	.693	2.36	1.39	54.0	165.0	2.06	75	229	269	98	30
RA		26	1	82	75	.640	2.36	1.28	52.4	175.0	1.85	67	224	242	88	29
RA		27	1	78	66	.594	2.36	1.19	40.0	150.0	1.31	47	178	171	62	23
RA		Totals	47	83	74	72.338	107.64	116.73	26.8	92.3	86.68	3,128	10,773	11,355	4,098	1,411
WH		15	1	78	72	1.924	2.36	1.92	27.3	40.0	1.68	52	77	220	69	10
WH		17	1	84	66	1.498	2.36	1.50	35.5	60.0	1.70	53	90	223	70	12
WH		25	1	84	136	.693	2.36	2.08	52.6	216.7	3.50	109	450	458	143	59
WH		27	1	81	96	.594	2.36	1.19	33.0	155.0	2.43	39	184	319	51	24
WH		32	1	89	134	.420	2.36	1.26	61.2	293.3	2.93	77	370	384	101	48
WH		37	1	84	145	.316	2.36	.95	99.7	503.3	3.03	95	478	396	124	63
WH		Totals	6	82	90	5.445	14.17	8.90	47.8	185.3	15.26	426	1,648	1,999	558	216
RC		10	1	80	54	4.329	2.36	4.33	8.2	30.0	.83	35	130	109	46	17
RC		45	1	73	139	.214	2.36	.43	211.1	575.0	2.12	90	246	278	118	32
RC		47	1	84	126	.196	2.36	.59	151.7	650.0	2.10	89	382	275	117	50
RC		Totals	3	80	61	4.739	7.08	5.34	40.2	141.8	5.05	215	758	662	282	99
BM		11	1	85	17	3.578	2.36	3.58	7.4	30.0	.70	26	107	92	35	14
BM		12	1	81	58	3.007	2.36	3.01	15.8	50.0	1.26	47	150	165	62	20
BM		13	1	80	61	2.562	2.36	2.56	17.8	50.0	1.21	46	128	158	60	17
BM		16	1	90	57	1.691	2.36	1.69	18.1	60.0	.81	31	101	106	40	13

TC		PSTNDSUM		Stand Table Summary										Page 2	
				Project FALLRDG										Date: 9/30/2009	
		T03N R09W S22 Ty0200 15.00		Acres 131.00										Time: 6:42:55AM	
		T03N R09W S22 Ty0100 116.00												Grown Year:	
S Spc T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
								Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
BM	21	1	82	73	.982	2.36	1.96	31.0	115.0	1.61	61	226	211	80	30
BM	Totals	5	83	47	11.819	11.81	12.80	16.5	55.7	5.59	211	713	733	277	93
DL	22	1	87	124	.578	1.53	1.74	34.6	150.0	1.65	60	260	216	79	34
DL	43	1	83	157	.151	1.53	.45	158.9	776.7	1.98	72	353	260	95	46
DL	Totals	2	86	131	.730	3.05	2.19	60.3	280.0	3.63	132	613	476	173	80
SS	15	1	80	64	1.924	2.36	3.85	13.6	40.0	1.36	52	154	178	68	20
SS	26	1	81	71	.414	1.53	.83	55.2	190.0	1.19	46	157	156	60	21
SS	Totals	2	80	65	2.338	3.89	4.68	20.9	66.6	2.55	98	311	334	128	41
WL	15	1	90	51	1.244	1.53	1.24	24.7	60.0	.98	31	75	129	40	10
WL	20	1	91	83	.700	1.53	1.40	33.1	120.0	1.48	46	168	194	61	22
WL	Totals	2	90	63	1.944	3.05	2.64	29.1	91.8	2.46	77	243	323	101	32
DF 1	9	1	81	80	5.345	2.36				1.90			248		
DF 1	Totals	1	81	80	5.345	2.36				1.90			248		
DF 3	20	1	89	40	1.082	2.36				1.17			154		
DF 3	Totals	1	89	40	1.082	2.36				1.17			154		
DF 4	32	1	90	29	.423	2.36				.87			114		
DF 4	Totals	1	90	29	.423	2.36				.87			114		
DL 3	20	1	89	21	.700	1.53				.44			58		
DL 3	Totals	1	89	21	.700	1.53				.44			58		
OC 5	25	1	99	17	.693	2.36				.75			98		
OC 5	30	3	99	17	1.443	7.08				2.31			303		
OC 5	32	1	99	17	.423	2.36				.75			99		
OC 5	35	3	79	33	1.060	7.08				3.02			396		
OC 5	36	1	98	17	.334	2.36				.77			100		
OC 5	40	3	91	49	.716	6.25				3.59			471		
OC 5	50	3	75	51	.520	7.08				4.08			535		
OC 5	55	1	54	20	.143	2.36				.68			89		
OC 5	65	2	66	25	.205	4.72				1.60			210		
OC 5	75	2	81	49	.154	4.72				2.66			349		
OC 5	Totals	20	89	28	5.691	46.39				20.23			2,650		
RA 3	15	1	91	51	1.924	2.36				1.38			181		
RA 3	Totals	1	91	51	1.924	2.36				1.38			181		
WL 2	12	1	82	29	1.944	1.53				.70			92		
WL 2	Totals	1	82	29	1.944	1.53				.70			92		
Totals		128	84	73	161.421	288.90	237.14	29.7	111.6	226.52	7,037	26,470	29,674	9,218	3,468

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																
T03N R09W S22 Ty0200 15.00 T03N R09W S22 Ty0100 116.00				<b>Project: FALLRDG</b> <b>Acres 131.00</b>				<b>Page 1</b> <b>Date 9/29/2009</b> <b>Time 1:39:17PM</b>												
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									6-7	8-9	10-11	12+	12-20	21-30	31-35	36-99				
RA	D	D			100.0	93										8		0.00	17.4	
RA	8	R		87	4.2	9,885	9,468	1,240	21	10	21	49	3	21	23	54	33	107	0.93	88.4
RA	9	UT		13		1,305	1,305	171	32	18	18	31	39	33	28		20	46	0.68	28.4
<b>RA Totals</b>				<b>41</b>	<b>4.5</b>	<b>11,283</b>	<b>10,773</b>	<b>1,411</b>	<b>22</b>	<b>11</b>	<b>20</b>	<b>47</b>	<b>7</b>	<b>22</b>	<b>23</b>	<b>47</b>	<b>27</b>	<b>80</b>	<b>0.85</b>	<b>134.1</b>
RA	3	D	D		100.0	135											39		0.00	1.9
<b>RA Totals</b>					100.0	135											39		0.00	1.9
DF	D	D			100.0	45											8		0.00	1.8
DF	8	2		70	2.2	8,219	8,035	1,053				100	2		8	90	36	320	1.90	25.1
DF	8	3		17	2.7	2,045	1,990	261	20	27	49	4		1	22	77	37	101	0.84	19.8
DF	8	4		10		1,120	1,120	147	100				9	41	14	36	28	31	0.37	35.8
DF	9	UT		3		266	266	35	7		34	59	100				17	84	1.05	3.1
<b>DF Totals</b>				<b>43</b>	<b>2.4</b>	<b>11,694</b>	<b>11,411</b>	<b>1,495</b>	<b>14</b>	<b>5</b>	<b>9</b>	<b>73</b>	<b>5</b>	<b>4</b>	<b>11</b>	<b>81</b>	<b>31</b>	<b>133</b>	<b>1.02</b>	<b>85.6</b>
DF	1	D	D		100.0	321											39		0.00	5.3
<b>DF Totals</b>					100.0	321											39		0.00	5.3
DF	3	D	D		100.0	65											34		0.00	1.1
<b>DF Totals</b>					100.0	65											34		0.00	1.1
DF	4	D	D		100.0	30											27		0.00	.4
<b>DF Totals</b>					100.0	30											27		0.00	.4
WL	D	D															8		0.00	.7
WL	8	2		63	8.3	168	154	20				100				100	40	220	1.45	.7
WL	8	4		6		14	14	2	100				100				21	20	0.40	.7
WL	9	UT		31		75	75	10	100							100	39	60	0.63	1.2
<b>WL Totals</b>				<b>1</b>	<b>5.5</b>	<b>257</b>	<b>243</b>	<b>32</b>	<b>37</b>		<b>63</b>		<b>6</b>		<b>94</b>	<b>29</b>	<b>73</b>	<b>0.80</b>	<b>3.3</b>	
WL	2	D	D		100.0	58											23		0.00	1.9
<b>WL Totals</b>					100.0	58											23		0.00	1.9
DL	8	2		62	3.0	392	381	50				100				100	36	522	3.01	.7
DL	8	3		36		221	221	29		31	11	58				100	39	251	1.45	.9
DL	8	4		2		12	12	2	100				100				17	20	0.29	.6
<b>DL Totals</b>				<b>2</b>	<b>1.9</b>	<b>625</b>	<b>613</b>	<b>80</b>	<b>2</b>	<b>11</b>	<b>4</b>	<b>83</b>	<b>2</b>		<b>98</b>	<b>32</b>	<b>280</b>	<b>1.87</b>	<b>2.2</b>	
DL	3	D	D		100.0	35											19		0.00	.7
<b>DL Totals</b>					100.0	35											19		0.00	.7
SS	8	3		45		141	141	18				100				100	34	340	2.69	.4
SS	8	4		24		74	74	10	100					22	78		30	32	0.46	2.3
SS	9	UT		31		96	96	13			100		100				14	50	1.03	1.9
<b>SS Totals</b>				<b>1</b>		<b>311</b>	<b>311</b>	<b>41</b>	<b>24</b>		<b>31</b>	<b>45</b>	<b>31</b>	<b>5</b>	<b>64</b>	<b>24</b>	<b>67</b>	<b>0.87</b>	<b>4.7</b>	
OC	5	D	D		100.0	3,749											21		0.00	6.9
<b>OC Totals</b>					100.0	3,749											21		0.00	6.9

TC PSPCSTGR **Species, Sort Grade - Board Foot Volumes (Project)**

T03N R09W S22 Ty0200	15.00	<b>Project:</b> FALLRDG	<b>Page</b> 2
T03N R09W S22 Ty0100	116.00		
		<b>Acres</b> 131.00	<b>Date</b> 9/29/2009
			<b>Time</b> 1:39:17PM

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre		
				Def%	Gross	Net		Log Scale Dia				Log Length				Ln Ft	Bd Ft	CF/ Lf			
								6-7	8-9	10-11	12+	12-20	21-30	31-35	36-99						
BM	D	D																			
BM	8	R	79		566	566	74	27	41						67	33		10		0.00	7.9
BM	9	UT	21		147	147	19		73	27							100	28	69	0.75	8.2
<b>BM Totals</b>			<b>3</b>		<b>713</b>	<b>713</b>	<b>93</b>	<b>21</b>	<b>47</b>	<b>6</b>	<b>26</b>			<b>21</b>	<b>53</b>	<b>26</b>		<b>18</b>	<b>34</b>	<b>0.56</b>	<b>20.7</b>
RC	8	3	82	13.6	727	628	82											32	618	5.47	1.0
RC	8	4	18		130	130	17	100										24	30	0.34	4.3
<b>RC Totals</b>			<b>3</b>	<b>11.6</b>	<b>857</b>	<b>758</b>	<b>99</b>	<b>17</b>		<b>5</b>	<b>78</b>			<b>2</b>	<b>17</b>	<b>49</b>	<b>32</b>	<b>26</b>	<b>142</b>	<b>1.57</b>	<b>5.3</b>
WH	D	D		100.0	137													11		0.00	2.2
WH	8	2	46	9.4	850	770	101											37	581	3.24	1.3
WH	8	3	17	12.8	317	277	36				67	33						36	162	1.21	1.7
WH	8	4	12		193	193	25	100										35	43	0.74	4.5
WH	9	UT	25	24.1	538	408	53		5		95			31	5			26	307	2.19	1.3
<b>WH Totals</b>			<b>6</b>	<b>19.0</b>	<b>2,035</b>	<b>1,648</b>	<b>216</b>	<b>12</b>	<b>1</b>	<b>11</b>	<b>76</b>			<b>9</b>	<b>1</b>	<b>12</b>	<b>77</b>	<b>29</b>	<b>148</b>	<b>1.30</b>	<b>11.1</b>
<b>Totals</b>				<b>17.7</b>	<b>32,167</b>	<b>26,470</b>	<b>3,468</b>	<b>17</b>	<b>8</b>	<b>14</b>	<b>61</b>			<b>6</b>	<b>13</b>	<b>18</b>	<b>63</b>	<b>28</b>	<b>93</b>	<b>0.88</b>	<b>285.5</b>



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Fall Ridge*

1. **Type of Sale**  
Thinning/Regeneration harvest, Recovery
2. **Legal Description**  
Sections 15 and 22, T 3 N, R 9 W, W.M. Tillamook County, Oregon
3. **Sale Acreage**  
The sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	<u>Gross</u>	<u>Net</u>
<b>Area 1 (Clearcut)</b>	129	116
<b>Area 2 (Partial Cut)</b>	38	15

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

*Used for calculating the advertised volume.*

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. **Cruising Procedures**

**A. Cruise Method**

A total of 18 variable radius plots were taken on the sale area, spaced on a rectangular grid of 350' x 700'. All plots were full cruise plots. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 10 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were graded and measured for merchantable height, diameter, and form factor.

**B. Plot size**

A basal area factor of 40 was used for the sale area. The point of observation is 4.5 feet.

**C. Grading System**

All trees were graded according to Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 6 inch top outside bark for all conifers and 7 inches top outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet for all species. Height and diameter measurement standards were to the nearest foot or inch respectively.

**5. Computation Procedure**

Plot data was entered into SuperAce for computation of basal area, stand tables, and volume for each species and type. This data was then entered into the Volume Summary table to compute sale volumes. The standard error for the cruise was 9.1% and the coefficient of variation was 37.6 % based on 26 MBF per acre.

**6. Hidden Defect and Breakage**

5% hidden defect and breakage was taken on conifers and 10% hidden defect and breakage was taken on hardwoods.

**7. Timber Description**

Portions of the sale area burned in the 1933 Tillamook burn. Some legacy trees were left as the burn was hotter in some areas than others. The stand naturally regenerated with predominantly red alder and Douglas-fir with some maple and hemlock. The scattered legacy conifers may have significant defect. The red alder is mostly straight and does not appear to have been sprayed.

**8. Cruiser Names/Dates**

Cruise Contract 2007

**9. Revenue Distribution**

FDF 100%

Tax Code: 56-1

Deed Numbers: 35, 70

**10. Attachments**

Stand Table

Volume Summary

Log Stock Table

Logging Plan Map

**11. Stand and Log Stock Tables Species Key**

DL – Douglas-fir leave

DF – Douglas-fir take

RL – Red alder leave

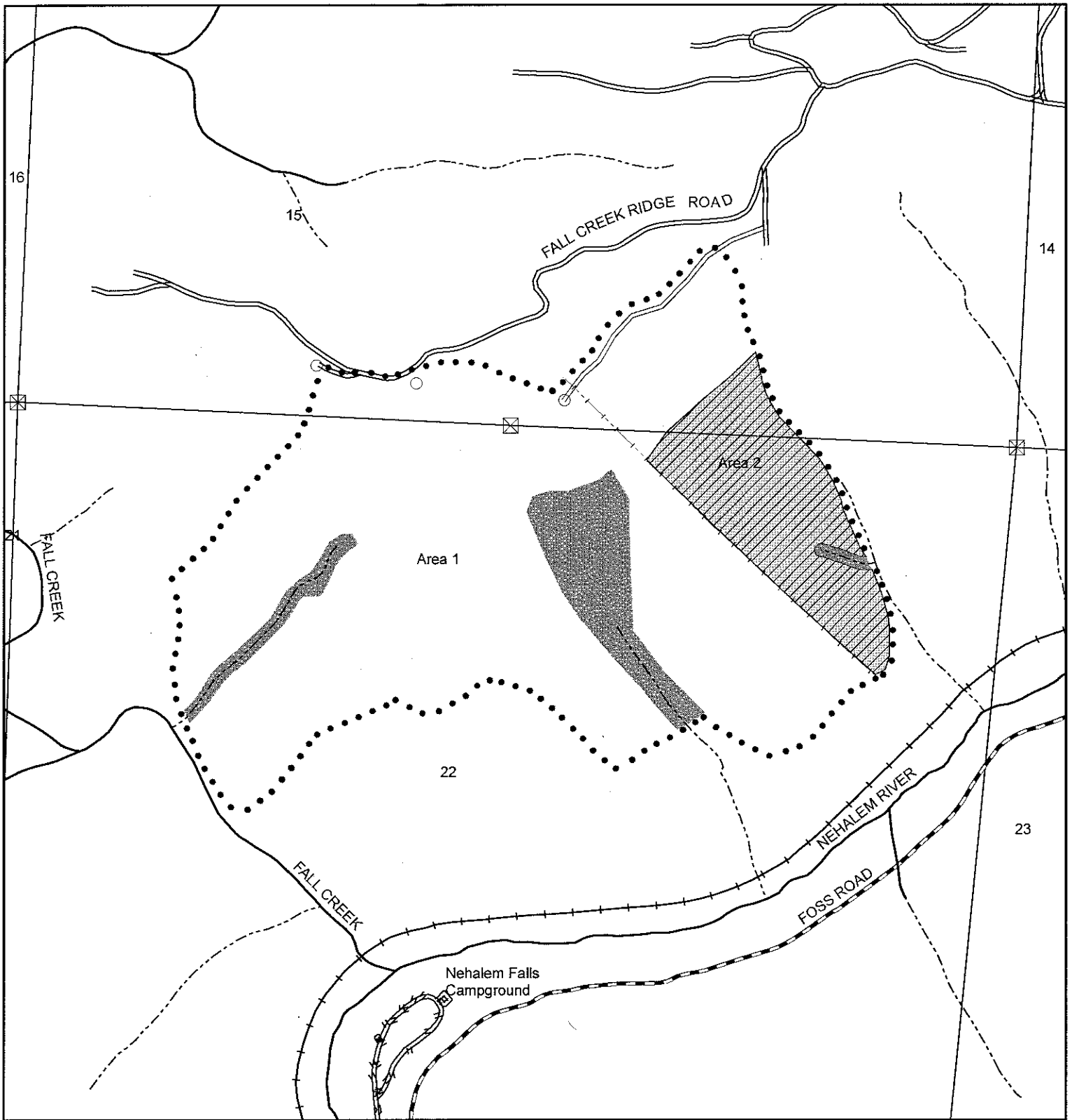
RA – Red alder take

RC – Western red cedar reserved

SS – Sitka spruce take

WL – Western hemlock leave

WH – Western hemlock take



- Landing
- ⊙ Domestic water supply intake
- ⊕ Helicopter landing zone
- ⊕ Truck turn-around
- ⊗ Survey corner
- ▭ Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Downhill yarding
- ▦ Buffer
- ▤ Non-required thinning

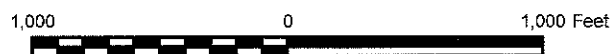
- - - Area boundary
- • • Sale boundary
- - - Ownership boundary
- Perennial Type-F stream
- - - Perennial Type-N stream
- ≡≡≡ Unsurfaced road
- ≡≡≡ Surfaced road
- State/Federal highway
- County road
- ⊙ Non-project road
- A - Swing road
- ⋯ Legacy road
- × × × Blocked road
- ⋯ OHV trail
- ⋯ Non-motorized trail
- T T Transmission line

**LOGGING PLAN**

Timber Sale Contract No. 341-10-57  
Fall Ridge

Portions of Sections 15 and 22  
T3N, R9 W, W.M.,  
Tillamook County, Oregon

Area	Type of Operation	Acres	
		Gross	Net
1	Clearcut	129	116
2	Partial Cut	38	15



Tillamook District GIS  
09/30/2009

This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

