

PART IV: OTHER INFORMATION

State Timber Sale Contract
No. 341-10-92
Waterhouse

NOTICE OF TRANSFER OF STATE TIMBER

Instructions

629:-Form-301-010

Complete Section 1. Mark the box which applies to you/your company in Section 2. Complete Section 3 and obtain signatures.

SECTION 1

On _____, state timber sale purchaser (Transferor)
_____, sold, exchanged or otherwise transferred to
_____, (Transferee) state timber originating from State
Timber Sale Contract No. _____.

Transferee hereby certifies that they:

- (a) Will not export the unprocessed state timber which is the subject of this transaction;
- (b) Will not sell, transfer, exchange or otherwise convey the unprocessed timber which is the subject of this transaction to any other person without first obtaining a like certification from that person.
- (c) Are not prohibited by OAR's 629-31-005 through 045 from purchasing state timber or logs directly from the State Forester, or this is a sale of Western Red Cedar for domestic processing.

SECTION 2

- Have not exported unprocessed timber originating from private lands in Oregon in the last 24 months.
- This is a sale of hardwood logs for domestic processing.
- This is a sale of Western Red Cedar for domestic processing.
- This is a sale of pulp logs or cull logs processed at domestic pulp mills, domestic chip plants or other domestic operations for the purpose of conversion of the logs into chips.

SECTION 3

The parties understand that falsely entering into this certification, or failure to comply with the terms of this certification is a violation of the Forest Conservation and Shortage Relief Act of 1990 and OAR Chapter 629, Division 31, and is subject to any and all penalties contained therein.

Transferor:

Transferee:

Signed _____

Signed _____

Title _____

Title _____

Dated _____

Dated _____

[Note: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-31-005]

Mail To: State Forester
2600 State Street
Salem, OR 97310



"STEWARDSHIP IN FORESTRY"

WRITTEN PLAN

- SALE NAME:** Waterhouse, 341-10-92
- PROTECTED WATERS:** Fall Creek, a large Type F Stream and Dubois Creek a small Type F tributary of it.
- DEFINITIONS:** Stream buffer: at least 100 feet horizontal distance from the high water mark on each side of the stream.
- LOCATION:** Portions of Sections 21 and 22, T3N, R9W, W.M., Tillamook County, Oregon.
- ACTIVITY:** Full suspension logging across Type F streams.
- PROTECTION MEASURES:**
- All trees in the RMA are reserved from cutting.
 - Cable yarding lines will be pulled out of the RMA prior to rigging the next yarding road.
 - If trees or logs fall or slide into a stream channel they will not be limbed, bucked, or removed without prior approval from ODF.
 - Cable lines will be an average of at least 100 feet apart where they extend over or through the Type F stream and buffer.
 - Stream Buffers are marked with "Buffer Zone" tags and blue flagging.

Date: 3/29/2010

Prepared by: David Luttrell



Timber Sale Appraisal
Waterhouse
Sale 341-10-92

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 12, 2010

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$230,033.91	\$196,967.40	\$427,001.31
		Project Work:	\$(41,360.00)
		Advertised Value:	\$385,641.31



Timber Sale Appraisal
Waterhouse
Sale 341-10-92

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 12, 2010

timber description

Location: Portions of Sections 21 and 22, T3N, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	27	0	95
Western Hemlock / Fir	22	0	95
Sitka Spruce	17	0	95
Alder (Red)	16	0	90

Volume by Grade	(10" - 11"	(12"+) 2S	(8" - 9") 4	2S	3S	4S	6" - 7"	Total
Douglas - Fir	0	0	0	805	299	46	0	1,150
Western Hemlock / Fir	0	0	0	110	169	28	0	307
Sitka Spruce	0	0	0	0	101	114	0	215
Alder (Red)	245	193	184	0	0	0	344	966
Total	245	193	184	915	569	188	344	2,638



Timber Sale Appraisal
Waterhouse
Sale 341-10-92

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 12, 2010

comments: Pond Values Used: 1st Quarter Calendar Year 2010.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
\$570/MBF = \$820/MBF - \$250/MBF

Pulp (Conifer & Hardwood) Price = \$55.00/MBF
(See attached Pulp Appraisal sheet)

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: \$2/MBF x 2,638 MBF = \$5,276
Snag Creation: \$10/snag x 204 snags = \$2,040
TOTAL Other Costs (with Profit and Risk to be added) = \$7,316

Other Costs (No Profit & Risk added):
Longview Timber Road Use Fee: \$522.50
TOTAL Other Costs (No Profit & Risk added) = \$522.50

ROAD MAINTENANCE
Interim Maintenance: \$250/Mile x 3.7 miles x 1 grading/2,638MBF =
\$0.35/MBF

Maintenance Rock: (\$7.80/cu. yd. x 3.7 miles x 25 cu.
yd./MMBF/mile x 2.638 MMBF)/2,638 MBF = \$.72/MBF

Final Maintenance:
Grading - \$500/Mile x 3.7 miles x 1 grading/2,638 MBF = \$.70/MBF

TOTAL Maintenance Cost = \$1.77/MBF



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Waterhouse Sale 341-10-92

District: Tillamook

Date: May 12, 2010

logging conditions

combination#: 1

Douglas - Fir	35.00%
Western Hemlock / Fir	70.00%
Sitka Spruce	30.00%
Alder (Red)	100.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Large Tower >=70 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 5.0 **bd. ft / load:** 3,500
cost / mbf: \$218.67

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

combination#: 2

Douglas - Fir	25.00%
Sitka Spruce	50.00%

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: 6.0 **bd. ft / load:** 3,500
cost / mbf: \$159.24

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

combination#: 3

Douglas - Fir	40.00%
Western Hemlock / Fir	30.00%
Sitka Spruce	20.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 8.0 **bd. ft / load:** 3,300
cost / mbf: \$107.36

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Waterhouse
Sale 341-10-92

District: Tillamook

Date: May 12, 2010

logging costs

Operating Seasons:	1.00	Profit Risk:	10.00%
Project Costs:	\$41,360.00	Other Costs (P/R):	\$7,316.00
Slash Disposal:	\$0.00	Other Costs:	\$522.50

Miles of Road

Road Maintenance: \$1.77

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	2.0	3.7
Western Hemlock / Fir	\$0.00	3.0	3.7
Sitka Spruce	\$0.00	3.0	3.5
Alder (Red)	\$0.00	2.0	3.5



Timber Sale Appraisal
Waterhouse
Sale 341-10-92

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 12, 2010

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$159.29	\$1.86	\$1.66	\$90.29	\$2.77	\$25.59	\$0.00	\$5.00	\$0.20	\$286.66
Western Hemlock / Fir									
\$185.28	\$1.86	\$1.66	\$60.20	\$2.77	\$25.18	\$0.00	\$5.00	\$0.20	\$282.15
Sitka Spruce									
\$166.69	\$1.86	\$1.66	\$63.64	\$2.77	\$23.66	\$0.00	\$5.00	\$0.20	\$265.48
Alder (Red)									
\$218.67	\$1.95	\$1.66	\$100.00	\$2.77	\$32.50	\$0.00	\$5.00	\$0.20	\$362.75

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$450.30	\$163.64	\$0.00
Western Hemlock / Fir	\$0.00	\$368.13	\$85.98	\$0.00
Sitka Spruce	\$0.00	\$337.35	\$71.87	\$0.00
Alder (Red)	\$0.00	\$566.65	\$203.90	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Waterhouse
Sale 341-10-92

District: Tillamook

Date: May 12, 2010

summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,150	\$163.64	\$188,186.00
Western Hemlock / Fir	307	\$85.98	\$26,395.86
Sitka Spruce	215	\$71.87	\$15,452.05
Alder (Red)	966	\$203.90	\$196,967.40

Gross Timber Sale Value

Recovery: \$427,001.31

Prepared by: David Luttrell

Phone: 503-815-7025

Pulp Appraisal

Sale Name	Waterhouse
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Species	Douglas-fir	Hemlock	Alder	Spruce
Stems Per/ac.	25	7	93	17
Acres	102	102	102	102
Total Stems	2550	714	9486	1734
BF/Stem, Conversion	10	10	10	10
Total MBF Per/Species	26	7	95	17
Pond Value Per/MBF	\$260	\$300	\$340	\$300
*Logging + Hauling Costs	\$249.58	\$249.58	\$249.58	\$249.58
Stumpage	\$10.42	\$50.42	\$90.42	\$50.42
Tons Per/MBF, Conversion	10	10	10	10
Price Per/Ton	\$1.04	\$5.04	\$9.04	\$5.04
Total Tons Per/Species	255	71	949	173
Total Value	\$265.71	\$360.00	\$8,577.24	\$874.28
Less P/R 20%	\$212.57	\$288.00	\$6,861.79	\$699.43

	Total Price	Price/Ton	Price/MBF
Total Price	\$10,077.23	\$6.96	\$69.57
Total Less P/R 20%	\$8,061.79	\$5.57	\$55.66

Contract Price	\$55.00
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Required Changes

*Conifer and alder logging & hauling cost based on the Douglas-fir price.

** Pulp price rounded down to nearest whole dollar



PROJECT SUMMARY SHEET

Sale: Waterhouse

CONSTRUCTION

Point	A to B	8+00	stations =	\$7,467.20
Point	C to D	23+50	stations =	\$24,478.65
SUBTOTAL CONSTRUCTION				\$31,945.85

IMPROVEMENT

Point	E to F	14+00	stations =	\$2,168.80
Point	G to H	159+00	stations =	\$4,024.50
SUBTOTAL IMPROVEMENT				\$6,193.30

MOVE IN **\$3,220.85**

GRAND TOTAL **\$41,360.00**

SUMMARY OF CONSTRUCTION COST

Sale:

Waterhouse

Road:

A to B

Construction -	8+00	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.15	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope	To W.A. (mi.)	Outslope/Ditch	Cost per Station	=	\$1,112.00	
			20%	Avg. Dist.	Outslope	\$139		TOTAL	\$1,112.00
0+00		8+00							

ROCK

0+00 to	8+00	450 cy. of	Crushed	@	\$10.12 per c.y.=	\$4,554.00	
Landing Rock	6+00	100 cy. of	Crushed	@	\$10.12 per c.y.=	\$1,012.00	
						TOTAL ROCK	\$5,566.00

SPECIAL PROJECTS

Construct Landing	2.00	hours @	\$130.00	per hour	\$260.00		
Grade and shape road -	8.00	stations @	\$15.50	per station	\$124.00		
Roll subgrade w/ vibratory roller prior to rocking -	8.00	stations @	\$13.20	per station	\$105.60		
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00		
Grass seed and fertilize -	0.18	acres @	\$220.00	per acre	\$39.60		
						TOTAL SPECIAL PROJECTS	\$789.20

GRAND TOTAL **\$7,467.20**

SUMMARY OF CONSTRUCTION COST

Sale:

Waterhouse

Road:

C to D

Construction -	23+50	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.45	miles		0.00	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 Outsloped	Cost per Station	=		
0+00		23+50	30%			\$191		\$4,488.50	
								TOTAL	\$4,488.50

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	30	LF of 18"	\$525.00	40	LF of 24"	\$1,080.00		
<u>Culvert Stakes & Markers</u>		2 markers	\$16.00					
			<u>\$16.00</u>					
							TOTAL CULVERTS	\$1,621.00

ROCK

0+00 to	23+50	1,290	cy. of	Crushed	@	\$10.37 per c.y.=	\$13,377.30	
Landing Rock	23+50	100	cy. of	Crushed	@	\$10.37 per c.y.=	\$1,037.00	
							TOTAL ROCK	\$14,414.30

SPECIAL PROJECTS

Drill and Shoot							\$1,300.00	
Construct Landing -	2.00	hours @		\$130.00		per hour	\$260.00	
Blowdown Removal From R/W	4.00	hours @		\$145.00		per hour	\$580.00	
Fabric	140	Sq.Ft.		\$1.50		per sq. ft.	\$210.00	
Grade and shape road -	23.50	stations @		\$15.50		per station	\$364.25	
Roll subgrade w/ vibratory roller prior to rocking -	23.50	stations @		\$13.20		per station	\$310.20	
Remove large stumps -	1.00	lump sum @		\$780.00			\$780.00	
Grass seed and fertilize -	0.52	acres @		\$220.00		per acre	\$114.40	
Mulching -	0.060	acres @		\$600.00		per acre	\$36.00	
							TOTAL SPECIAL PROJECTS	\$3,954.85

GRAND TOTAL **\$24,478.65**

SUMMARY OF CONSTRUCTION COST

Sale:

Waterhouse

Road:

E to F

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>14+00</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.00	miles		0.27	miles		0.00	miles

IMPROVEMENT: EXCAVATION -

Drainage Improvements & Ditchouts

14.00 sta. @ \$10.00 per sta. = \$140.00

ROCK

0+00 to 14+00

220 cy. of Crushed

@ \$7.59 per c.y. = \$1,669.80

TOTAL ROCK \$1,669.80

SPECIAL PROJECTS

Grade and shape road -

14.00 stations @ \$15.50 per station = \$217.00

Grass seed and fertilize -

0.10 acres @ \$220.00 per acre = \$22.00

Mulching -

0.200 acres @ \$600.00 per acre = \$120.00

TOTAL SPECIAL PROJECTS **\$359.00**

GRAND TOTAL \$2,168.80

SUMMARY OF CONSTRUCTION COST

Sale:

Waterhouse

Road:

G to H

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>159+00</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.00	miles		3.01	miles		0.00	miles

ROCK

Spot Rock	*	200	cy. of	Crushed	@	\$7.80 per c.y.=	\$1,560.00		
								TOTAL ROCK	\$1,560.00

SPECIAL PROJECTS

Grade and shape road -		159.00	stations @		@	\$15.50 per station	\$2,464.50		
								TOTAL SPECIAL PROJECTS	\$2,464.50

GRAND TOTAL

\$4,024.50

ROCKING COST SUMMARY

Stockpile:	Crushed	Location:	Hansen Road as shown on Exhibit A
Sale:	Waterhouse	Road:	2360 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	2360 c.y.

Load Dump Truck: \$0.70 /cu.yd. x 2360 cu.yds. = \$1,652.00
Subtotal \$1,652.00

Move in Roller and Compactor	1	@	\$586.12	=	\$586.12
Move in Grader	1	@	\$223.62	=	\$223.62
Move in Loader	1	@	\$762.89	=	\$762.89
Move in Water Truck	1	@	\$227.16	=	\$227.16
				Subtotal	<u>\$1,799.79</u>

Base Cost= \$1.46 Per Cu.Yd.

TOTAL PRODUCTION COSTS	\$3,451.79
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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 0 800 (Crushed)	6.21	2.45	1.46	10.12	450	\$4,554.00
A to B Landing Rock (Crushed)	6.21	2.45	1.46	10.12	100	\$1,012.00
C to D 0 2350 (Crushed)	6.46	2.45	1.46	10.37	1290	\$13,377.30
C to D Landing Rock (Crushed)	6.46	2.45	1.46	10.37	100	\$1,037.00
E to F 0 1400 (Crushed)	3.68	2.45	1.46	7.59	220	\$1,669.80
G to H Spot Rock (Crushed)	4.99	1.35	1.46	7.80	200	\$1,560.00
				Total C.Y.	2360	Sub Total
						<u>\$23,210.10</u>

TOTAL ROCKING COSTS	\$23,210.10
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Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Waterhouse**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
52.0	Pavement	30
6.6	Main Lines	7
5.0	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	Drill & Compressor	\$709.32		\$46.00	0.00	0.00	0	\$0.00	\$709.32
1	Excavators (Large)	\$1,046.28	1	\$44.80	0.00	0.00	0	\$0.00	\$1,046.28
1	Tractor (D8)	\$990.91	2	\$15.10	0.00	0.00	0	\$0.00	\$990.91
1	Dump Truck (10 cy +)	\$247.18		\$2.85	0.00	0.00	0	\$0.00	\$247.18
1	Water Truck (2500 Gal)	\$227.16		\$2.85	0.00	0.00	0	\$0.00	\$227.16
TOTAL MOVE-IN COSTS:									\$3,220.85

Stand Table Summary																
TC TSTNDSUM																
Project WATRHSE																
T03N R09W S21 T0100										T03N R09W S21 T0100						
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page: 2				
03N	09W	21	1	0100			102.00	11	81			Date: 04/01/2010				
											Time: 2:20:59PM					
Spc	S T	Sample			Trees/			Average Log		Net			Totals			
		DBH	Trees	FF 16'	Ht Tot	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Cunits	MBF	
RC		Totals	6	72	70	11.279	21.82	12.70	36.6	81.6	10.94	465	1,037	1,115	475	106
DL		40	1	85	53	.417	3.64									
DL		45	1	73	31	.329	3.64									
DL		55	1	85	58	.220	3.64									
DL		Totals	3	81	47	.966	10.91									
Totals			81	80	78	154.419	294.55	248.01	31.7	115.7	219.69	7871	28,688	22,409	8,028	2,926

T03N R09W S21 T0100
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt T03N R09W S21 T0100
 03N 09W 21 1 0100 102.00 11 81 S BdFt
 W

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
RA		8	2	2		302	302	31	100				100				40	240	2.03	1.3	
RA		8	R	98		10,216	10,216	1,042	82	18		5	11	37	46	30	70	0.73	145.3		
RA	Totals			37		10,518	10,518	1,073	80	20		5	11	36	48	30	72	0.74	146.6		
DF		8	2	70	.6	8,270	8,222	839		17	83		7	61	32	34	481	2.79	17.1		
DF		8	3	26	6.6	3,151	2,944	300	32	58	10		15	50	35	33	178	1.32	16.5		
DF		8	4	4	2.2	450	440	45	43	57			13	30	57	35	45	0.52	9.8		
DF	Totals			40	2.2	11,871	11,605	1,184	2	10	27	61		9	57	34	34	267	1.71	43.4	
SS		8	3	37	8.4	982	900	92		51	49			51	49	34	133	1.24	6.8		
SS		8	4	43	17.4	1,232	1,017	104	26	44	13	17	6	23	71	32	55	0.74	18.6		
SS		8	UT	20	2.5	463	451	46		100				100		40	390	2.34	1.2		
SS	Totals			8	11.5	2,677	2,368	242	11	38	43	8	3	10	19	68	33	89	0.96	26.5	
RC		8	3	62		649	649	66		48	52			100		40	223	1.94	2.9		
RC		8	4	38		388	388	40	87	13				16	84	36	40	0.68	9.8		
RC	Totals			4		1,037	1,037	106	33	35	33			6	94	37	82	0.99	12.7		
WH		8	2	36	1.1	1,172	1,159	118		63	37			58	42	35	315	1.89	3.7		
WH		8	3	55		1,719	1,719	175		19	81			13	87	39	187	1.22	9.2		
WH		8	4	9		280	280	29	39	61				22	17	61	34	48	0.52	5.9	
WH	Totals			11	.4	3,171	3,158	322	3	16	67	14		2	30	68	37	168	1.14	18.8	
Type Totals					2.0	29,274	28,688	2,926	3	40	30	27		2	9	41	48	32	116	0.99	248.0

TC		TLOGSTVB		Log Stock Table - MBF																
Project:										WATRHS										
T03N R09W S21 T0100										T03N R09W S21 T0100										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1		Date		4/1/2010		Time		2:13:43PM			
03N	09W	21	1	0100	102.00	11	81													
Spp	T	S	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	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
RA		8	2		40		31		31	2.9					31					
RA		8	R		17		23		23	2.1			23							
RA		8	R		18		17		17	1.6			17							
RA		8	R		19		8		8	.8			8							
RA		8	R		20		6		6	.6			6							
RA		8	R		21		31		31	2.9			31							
RA		8	R		22		5		5	.5			5							
RA		8	R		23		12		12	1.1			12							
RA		8	R		24		14		14	1.3			14							
RA		8	R		25		7		7	.7			7							
RA		8	R		26		14		14	1.3			14							
RA		8	R		27		6		6	.6			6							
RA		8	R		28		8		8	.7			8							
RA		8	R		30		22		22	2.1			22							
RA		8	R		32		363		363	33.8			34	84	130	90	25			
RA		8	R		35		21		21	2.0			21							
RA		8	R		37		28		28	2.6			28							
RA		8	R		40		456		456	42.5			146	100	141	68				
RA		Totals					1,073		1,073	36.7			382	205	272	189	25			
DF		8	2		26		61	2.5	60	5.0								60		
DF		8	2		32		512	.7	509	43.0					48	43	203	123	92	
DF		8	2		40		270		270	22.8						51	52	167		
DF		8	3		23		29		29	2.5								29		
DF		8	3		27		5		5	.4				5						
DF		8	3		28		4		4	.3			4							
DF		8	3		29		7		7	.6			7							
DF		8	3		31		4		4	.3			4							
DF		8	3		32		146		146	12.3			4	48	33	46	15			
DF		8	3		40		126	16.8	105	8.8				25		79				
DF		8	4		25		3		3	.3			3							
DF		8	4		27		3		3	.2			3							
DF		8	4		31		2		2	.2			2							
DF		8	4		35		12		12	1.0		12								
DF		8	4		36		6	16.7	5	.4			5							
DF		8	4		38		5		5	.4			5							
DF		8	4		40		15		15	1.3		8	8							
DF		Totals					1,211	2.2	1,184	40.5		19	30	15	78	81	219	299	350	92
SS		8	3		32		55	15.1	47	19.5			21	26						
SS		8	3		40		45		45	18.5					45					
SS		8	4		19		6		6	2.5		6								
SS		8	4		22		13		13	5.4				13						
SS		8	4		23		4		4	1.5			4							
SS		8	4		25		7		7	2.9		7								
SS		8	4		36		5		5	1.9			5							
SS		8	4		37		14		14	5.7		14								
SS		8	4		40		78	28.2	56	23.1			38				18			
SS		8	UT		40		47	2.5	46	19.1							46			
SS		Totals					273	11.5	242	8.3		27	46	21	26	13	45	64		

TC TLOGSTVB

Log Stock Table - MBF

Project: **WATRHSE**

T03N R09W S21 T0100

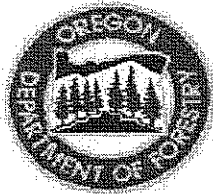
T03N R09W S21 T0100

Twp Rge Sec Tract
03N 09W 21 1

Type Acres Plots Sample Trees
0100 102.00 11 81

Page 2
Date 4/1/2010
Time 2:13:43PM

Spp	T	S	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	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+	
RC		8	3	40			66		66	62.6				31			35						
RC		8	4	27			6		6	6.0		6											
RC		8	4	38			22		22	21.3		22											
RC		8	4	40			11		11	10.2		6	5										
RC		Totals						106		106	3.6		34	5		31			35				
WH		8	2	32			68		68	21.1					24				44				
WH		8	2	40			51	2.5	50	15.6									50				
WH		8	3	32			22		22	7.0					22								
WH		8	3	40			153		153	47.5			8	25		73			47				
WH		8	4	27			6		6	2.0		6											
WH		8	4	35			5		5	1.5		5											
WH		8	4	38			9		9	2.9			9										
WH		8	4	40			8		8	2.6			8										
WH		Totals						323		322	11.0		11	25	25		120			141			
Total All Species								2,986	2.0	2,926	100.0		92	488	266		407	403		289	539	350	92



STEWARDSHIP IN FORESTRY

Waterhouse

Volume Summary

Area 1-Modified Clearcut				
102 acres				
SPECIES	Gross MBF/Acre	Gross MBF	Hidden D&B	Net Vol MBF
Douglas-fir	11.9	1211	5%	1150
Hemlock	3.2	323	5%	307
Spruce	2.2	226	5%	215
Alder	10.5	1073	10%	966
		0		0
TOTAL	27.8	2833		2638

TOTAL SALE VOLUME			102	acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)		
Douglas-fir	1211	1150		
Hemlock	323	307		
Spruce	226	215		
Red Alder	1073	966		
TOTAL	2833	2638		



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Waterhouse*

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Portions of Sections 21 and 22, T3N, R9W, W.M., Tillamook County, Oregon.

3. Sale Acreage

How the acreage was determined (Sale acreage was determined by GPS and orthophotographs along with GIS.)

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Clearcut)	152	102

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 11 variable radius plots were used 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 14.9% and the coefficient of variation was 49.5 % based on 28 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 stand were burned in the 1933 Tillamook burn. It was on the northern edge of the fire so not all of the area burned. Some legacy trees were left, some of which contain defect from the fire. The conifer species are scattered throughout the area but are more pronounced on the ridge tops. The stand was naturally regenerated with major components of high quality Douglas-fir and Alder but also contains high quality pockets of hemlock, spruce and cedar. There has not been any prior stand management in this stand. This stand is 65 years of age.

8. Cruiser Names/Dates

Service Contract Cruiser 2007

9. Revenue Distribution

FDF 100%

Tax Code: 56-1

Deed Numbers: 35, 70 & 146

10. Attachments

Stand Table (partial cut)

Volume Summaries

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave

DF – Douglas-fir take

RA – Red alder take

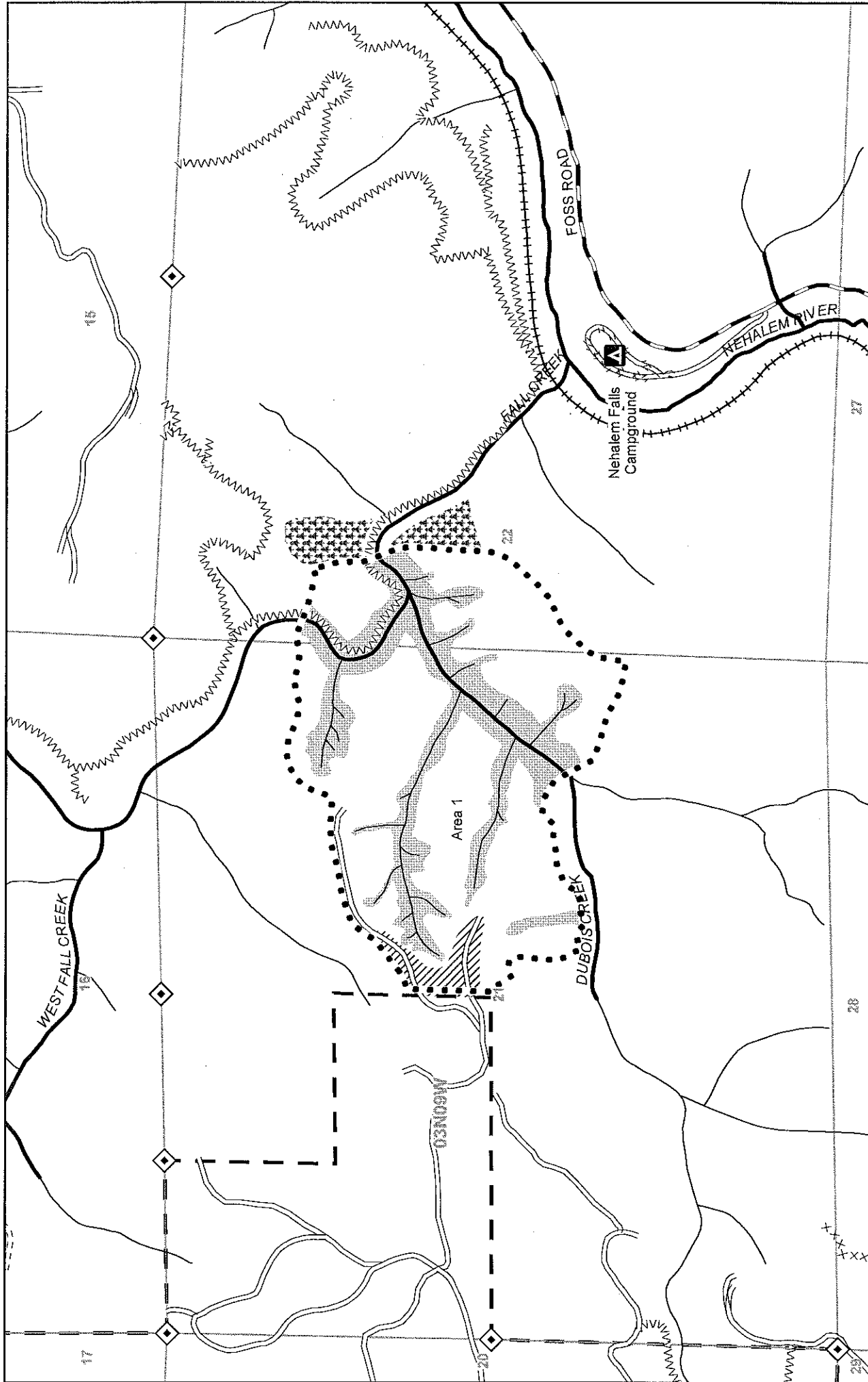
RC – Western red cedar reserved

SL – Sitka spruce leave

SS – Sitka spruce take

WL – Western hemlock leave

WH – Western hemlock take



LOGGING PLAN
 Timber Sale Contract No. 341-10-92
 Waterhouse
 Portions of Sections 21 and 22
 T3N, R9W, W.M.,
 Tillamook County, Oregon

Tillamook District GIS
 4/1/2010

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

<ul style="list-style-type: none"> ○ Rock source ⊙ Stock pile ⊙ Waste area ⊙ Bridge ⊙ Gate ⊙ Survey corner ⊙ Domestic water supply intake ⊙ Truck turn-around ⊙ Helicopter landing zone ⊙ Cultural site 	<ul style="list-style-type: none"> ○ Landing ⊙ Buffer ⊙ Non-required thinning ⊙ Cable yarding ⊙ Ground yarding ⊙ Helicopter yarding ⊙ Downhill yarding ⊙ Green tree retention area 	<ul style="list-style-type: none"> ◆ Area boundary ◆ Sale boundary ◆ Ownership boundary ◆ Perennial Type-F stream ◆ Perennial Type-N stream ◆ Unsurfaced road ◆ Surfaced road ◆ Paved road ◆ Abandoned road 	<ul style="list-style-type: none"> ---A--- Swing road ⊙ Non-project road ⊙ Blocked road --- Road construction ⊙ OHV trail ⊙ Non-motorized trail ⊙ Transmission line ⊙ Railroad 	<p>Area Operation</p> <p>Modified Clearcut 152 102</p>	<p>Type of Operation</p> <p>Acres</p> <p>Gross Net 152 102</p>
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Scale: 0 to 1,000 Feet

North Arrow