



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Tillison Ridge  
Sale 341-11-20

District: Tillamook

Date: May 28, 2010

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$130,930.32	\$81,971.76	\$212,902.08
		<b>Project Work:</b>	\$(43,670.00)
		<b>Advertised Value:</b>	\$169,232.08



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**timber description**

Location: Portions of Sections 25 & 36, T1S, R9W, W.M. Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Western Hemlock / Fir	16	0	95
Sitka Spruce	19	0	95
Alder (Red)	15	0	90

Volume by Grade	2S	3S	4S	Total
Western Hemlock / Fir	499	329	60	888
Sitka Spruce	227	102	39	368
Alder (Red)	33	135	170	338
Total	759	566	269	1,594



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

Douglas-fir Stumpage Price = Pond Value minus Logging Cost  
\$180/MBF = \$440/MBF - \$260/MBF

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost  
\$560/MBF = \$820/MBF - \$260/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: \$1.00/MBF x 1,594 MBF = \$1,594

TOTAL Other Costs (with Profit & Risk to be added) = \$1,594

Other Costs (No Profit & Risk added):

Non-project Roads:

Area 1: 475 feet x \$150.00/station = \$712.50

Slash Piling and sorting: \$2.50/acre x 88 acres = \$220.00

Tank trap installation on un-surfaced road: 3 x \$75 = \$225.00

Road vacating on un-surfaced roads: 3 roads @ \$200/road = \$600.00

Road vacating shall include water-bars and slashing of all dirt roads. Tank traps where dirt roads meet rock roads.

Down wood creation Area 4: 24 trees >20DBH @ \$10/tree = \$240.00

TOTAL Other Costs (No Profit & Risk added) = \$1,997.50

ROAD MAINTENANCE

Final Grading: \$500/mile x 4.0 miles/ 1596 MBF = \$ 1.25/MBF

Spot rocking: (\$9.00/cy x 4 miles x 10cy/MMBF/mile x 1.6MMBF)/1596 MBF = \$.36

Compaction (209 stations x \$18/station) + 111 move-in)/1596MBF = \$2.43/MBF

Final grading and compaction includes all roads on haul route.

TOTAL ROAD MAINTENANCE COST: \$4.04/MBF



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logging conditions

**combination#: 1**            Western Hemlock / Fir            92.57%  
                                  Sitka Spruce                            100.00%  
                                  Alder (Red)                            52.37%

**yarding distance:** Medium (800 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:** 7.0                            **bd. ft / load:** 2,500  
**cost / mbf:** \$161.96

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

**combination#: 2**            Western Hemlock / Fir            7.43%  
                                  Alder (Red)                            47.63%

**yarding distance:** Short (400 ft)            **downhill yarding:** No  
**logging system:** Cable: Small Tower <=40            **Process:** Manual Delimiting  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 4.0                            **bd. ft / load:** 3,700  
**cost / mbf:** \$182.50

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



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**logging costs**

Operating Seasons:	1.00	Profit Risk:	10.00%
Project Costs:	\$43,670.00	Other Costs (P/R):	\$1,594.00
Slash Disposal:	\$0.00	Other Costs:	\$1,997.50

**Miles of Road**

Road Maintenance: \$4.04

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

**Hauling Costs**

Species	\$ / MBF	Trips/Day	MBF / Load
Western Hemlock / Fir	\$0.00	3.0	3.8
Sitka Spruce	\$0.00	3.0	4.0
Alder (Red)	\$0.00	3.0	2.8



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**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Western Hemlock / Fir</b>									
\$163.49	\$4.24	\$2.75	\$58.61	\$1.00	\$23.01	\$0.00	\$5.00	\$1.25	\$259.35
<b>Sitka Spruce</b>									
\$161.96	\$4.24	\$2.75	\$55.68	\$1.00	\$22.56	\$0.00	\$5.00	\$1.25	\$254.44
<b>Alder (Red)</b>									
\$171.74	\$4.44	\$2.75	\$83.34	\$1.00	\$26.33	\$0.00	\$5.00	\$1.25	\$295.85

Specie	Amortization	Pond Value	Stumpage	Amortized
Western Hemlock / Fir	\$0.00	\$370.28	\$110.93	\$0.00
Sitka Spruce	\$0.00	\$342.55	\$88.11	\$0.00
Alder (Red)	\$0.00	\$538.37	\$242.52	\$0.00



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summary

**Amortized**

Specie	MBF	Value	Total
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
Western Hemlock / Fir	888	\$110.93	\$98,505.84
Sitka Spruce	368	\$88.11	\$32,424.48
Alder (Red)	338	\$242.52	\$81,971.76

**Gross Timber Sale Value**

Recovery: \$212,902.08

Prepared by: Nick Stumpf

Phone: 503-842-2545

## Pulp Appraisal

<b>Sale Name</b>	<b>Tillison Ridge</b>
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Species	Hemlock	Spruce	Alder
<b>Stems Per/ac.</b>	132	42	124
<b>Acres</b>	82	82	82
<b>Total Stems</b>	10824	3444	10168
<b>BF/Stem, Conversion</b>	10	10	10
<b>Total MBF Per/Species</b>	108	34	102
<b>Pond Value Per/MBF</b>	\$300	\$300	\$340
<b>*Logging + Hauling Costs</b>	\$260.00	\$260.00	\$260.00
<b>Stumpage</b>	\$40.00	\$40.00	\$80.00
<b>Tons Per/MBF, Conversion</b>	10	10	10
<b>Price Per/Ton</b>	\$4.00	\$4.00	\$8.00
<b>Total Tons Per/Species</b>	1082	344	1017
<b>Total Value</b>	\$4,329.60	\$1,377.60	\$8,134.40
<b>Less P/R 20%</b>	\$3,463.68	\$1,102.08	\$6,507.52

	Total Price	Price/Ton	Price/MBF
<b>Total Price</b>	\$13,841.60	\$5.66	\$56.64
<b>Total Less P/R 20%</b>	\$11,073.28	\$4.53	\$45.32

<b>Contract Price</b>	<b>\$46.00</b>
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\*Conifer logging & hauling cost based on the Hemlock price.

\*\* Pulp price rounded down to nearest whole dollar



## SUMMARY OF CONSTRUCTION COST

Sale:	<b>Tillison Ridge</b>			Road:	<b>A to B</b>			
Construction -	0+00	stations	Improvement -	259+40	stations	Reconstruction -	0+00	stations
	0.00	miles		4.91	miles		0.00	miles

<b>IMPROVEMENT: EXCAVATION -</b>								
Widening				173	cy. @	\$1.40	per c.y.=	\$242.20
Ditchline Cleanout & End Haul							per c.y.=	\$8,200.00
							<b>TOTAL EXCAVATION</b>	<b>\$8,442.20</b>

<b>IMPROVEMENT: ENDHAUL -</b>								
Widening	52+00	to	53+70	124	cy. @	\$0.93	per c.y.=	\$115.32
Widening	140+55	to	141+55	49	cy. @	\$0.93	per c.y.=	\$45.57
Spread & compact				173	cy. @	\$0.25	per c.y.=	\$43.25
							<b>TOTAL ENDHAUL</b>	<b>\$204.14</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	32	LF of 30"	\$1,152.00					
			\$1,152.00					
<u>Culvert Stakes &amp; Markers</u>								
	1	stakes	\$8.00					
			\$8.00					
							<b>TOTAL CULVERTS</b>	<b>\$1,160.00</b>

<b>ROCK</b>									
52+00 to	53+70		40	cy. of	Crushed	@	\$8.56	per c.y.=	\$342.40
140+55 to	141+55		30	cy. of	Crushed	@	\$9.00	per c.y.=	\$270.00
Culvert Backfill	53+00		10	cy. of	Crushed	@	\$7.91	per c.y.=	\$79.10
Energy Dissipator	53+00		30	cy. of	Riprap	@	\$8.61	per c.y.=	\$258.30
Ditchline Fill	140+55 to 141+55		30	cy. of	Pit-Run	@	\$5.98	per c.y.=	\$179.40
Spot rock	*		250	cy. of	Crushed	@	\$8.56	per c.y.=	\$2,140.00
							<b>TOTAL ROCK</b>	<b>\$3,269.20</b>	

**SPECIAL PROJECTS**

Remove gate assembly from State Land -			1.00	hour @	\$88.00	per hour	\$88.00	
Grade and shape road			249.00	stations @	\$15.50	per station	\$3,859.50	
Remove culvert from state land			1.00	@	\$162.90	total	\$162.90	
Grass seed and fertilize - (0+00 to 138+00 supplied by STATE)			0.30	acres @	\$220.00	per acre	\$66.00	
							<b>TOTAL SPECIAL PROJECTS</b>	<b>\$4,176.40</b>

**GRAND TOTAL** **\$17,306.06**

## SUMMARY OF CONSTRUCTION COST

Sale:

**Tillison Ridge**

Road:

**C to D**

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 -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch Outslope	Cost per Station	=	\$1,944.00	
0+00		8+00	40%			\$243		<b>TOTAL</b>	<b>\$1,944.00</b>

**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
Remove large stumps -	1.00	lump sum @	\$520.00		\$520.00
Grass seed and fertilize -	0.18	acres @	\$220.00	per acre	\$39.60
				<b>TOTAL SPECIAL PROJECTS</b>	<b>\$943.60</b>
<b>GRAND TOTAL</b>					<b>\$2,887.60</b>

## SUMMARY OF CONSTRUCTION COST

Sale:

Tillison Ridge

Road:

E to F

<u>Construction -</u>	13+30	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.25	miles		0.00	miles		0.00	miles

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION & POSSIBLE DRILL & SHOOT-

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	=		
0+00		13+30	40%		Outslope	\$243		\$3,231.90	
								<b>TOTAL</b>	<b>\$3,231.90</b>

**SPECIAL PROJECTS**

Grade and shape road -	13.30	stations @	\$15.50	per station	\$206.15
Construct Landing	2.00	hours @	\$130.00	per hour	\$260.00
Drill & Shoot Landing	1.00	lump sum @	\$1,200.00		\$1,200.00
Grass seed and fertilize -	0.31	acres @	\$220.00	per acre	\$68.20
					<b>TOTAL SPECIAL PROJECTS</b>
					<b>\$1,734.35</b>

<b>GRAND TOTAL</b>	<b>\$4,966.25</b>
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## SUMMARY OF CONSTRUCTION COST

Sale:

Tillison Ridge

Road:

G to H

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	39+80	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.75	miles		0.00	miles

**IMPROVEMENT -**

Road Earthwork	39.80	sta. @	\$10.00	per sta. =	\$398.00	
				<b>TOTAL EXCAVATION</b>		<b>\$398.00</b>

**ROCK**

Spot Rock	50	cy. of	Pit-Run	@	\$4.51 per c.y.=	\$225.50
						<b>TOTAL ROCK</b>
						<b>\$225.50</b>

**SPECIAL PROJECTS**

Grade and shape road -	39.80	stations @	\$15.50	per station	\$616.90	
				<b>TOTAL SPECIAL PROJECTS</b>		<b>\$616.90</b>

<b>GRAND TOTAL</b>	<b>\$1,240.40</b>
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## SUMMARY OF ROAD VACATING COST

Sale: **Tillison Ridge** Road: **I to J**

<u>Vacate</u>	47+00 stations 0.89 miles	0+00 stations 0.00 miles
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CLEARING - Side cast	0.211	acres @	\$660.00	per acre =	\$139.26	
					<b>TOTAL CLEARING</b>	<b>\$139.26</b>
<b>IMPROVEMENT:</b> EXCAVATION - Pullback	954	cy. @	\$1.40	per c.y.=	\$1,335.60	
					<b>TOTAL EXCAVATION</b>	<b>\$1,335.60</b>
<b>Waste Material Treatment</b> Spread & compact	954	cy. @	\$0.25	per c.y.=	\$238.50	
					<b>TOTAL</b>	<b>\$238.50</b>
<b>SPECIAL PROJECTS</b>						
Remove Fills & Culverts - 3+75 & 9+75	18.00	hours @	\$130.00	per hour	\$2,340.00	
Waterbar Road	3.00	hours @	\$130.00	per hour	\$390.00	
Block Road at Point I & J	2.00	hours @	\$130.00	per hour	\$260.00	
Remove culverts from state lands	2.00	@	\$202.50	total	\$202.50	
Grass seed and fertilize -	0.21	acres @	\$220.00	per acre	\$46.20	
Mulching -	0.210	acres @	\$600.00	per acre	\$126.00	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$4,934.50</b>
<b>GRAND TOTAL</b>						<b>\$6,647.86</b>



STEWARDSHIP IN FORESTRY

## Tillison Ridge

### Volume Summary

Area 1-Harvest Type MC				
58 acres				
SPECIES	Gross MBF/Acre	Gross MBF	Hidden D&B	Net Vol MBF
Hemlock	14.9	865	5%	822
Spruce	6.7	388	5%	369
Alder	3.4	198	10%	178
<b>TOTAL</b>	<b>25.0</b>	<b>1451</b>		<b>1369</b>

Areas 2-Harvest Type PC conifer, MC alder				
30 acres				
SPECIES	Gross MBF/Acre	Gross MBF	Hidden D&B	Net Vol MBF
Hemlock	2.3	70	5%	67
Alder	5.9	178	10%	160
<b>TOTAL</b>	<b>8.2</b>	<b>248</b>		<b>227</b>

TOTAL SALE VOLUME			88	acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)		
Hemlock	935	889		
Spruce	388	369		
Red Alder	376	338		
<b>TOTAL</b>	<b>1699</b>	<b>1596</b>		

TC		Stand Table Summary														
Project													TILRIDG			
T01S R09W S25 T0001										T01S R09W S25 T0001						
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees			Page:	1				
01S	09W	25	AREA1		0001	58.00	14	61			Date:	05/17/2010				
													Time:	2:08:22PM		
Sp	S	DBH	Sample Trees	FF	Ht	Trees/Acre	BA/Acre	Logs/Acre	Average Log		Net Cu.Ft./Acre	Net Bd.Ft./Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.			Tons	Cunits	MBF	
WH		10	2	88	56	14.259	7.78	14.26	12.8	52.3	5.86	183	745	340	106	43
WH		13	1	86	70	4.219	3.89	8.44	12.3	42.8	3.33	104	361	193	60	21
WH		14	1	89	95	3.638	3.89	3.64	25.4	85.5	2.96	92	311	172	54	18
WH		17	1	89	90	2.467	3.89	2.47	36.8	114.0	2.90	91	281	168	53	16
WH		18	1	86	128	2.200	3.89	4.40	32.4	109.2	4.56	143	481	265	83	28
WH		20	3	89	101	5.347	11.67	10.69	39.6	142.5	13.56	424	1,524	787	246	88
WH		22	3	87	107	4.419	11.67	8.84	51.7	196.3	14.61	457	1,735	847	265	101
WH		24	2	87	78	2.476	7.78	4.95	46.0	147.2	7.29	228	729	423	132	42
WH		25	2	88	123	2.281	7.78	4.56	71.1	299.2	10.38	325	1,365	602	188	79
WH		26	2	88	134	2.109	7.78	5.27	64.4	281.2	10.87	340	1,483	630	197	86
WH		27	1	85	100	.978	3.89	1.96	78.6	294.5	4.92	154	576	285	89	33
WH		28	3	89	138	2.728	11.67	8.18	64.1	295.6	16.79	525	2,419	974	304	140
WH		30	2	88	110	1.584	7.78	3.96	79.6	336.3	10.09	315	1,332	585	183	77
WH		31	1	87	135	.742	3.89	2.23	81.3	367.3	5.79	181	818	336	105	47
WH	Totals		25	88	90	49.448	97.21	83.85	42.5	168.9	113.92	3,560	14,160	6,608	2,065	821
SS		13	1	86	60	4.219	3.89	4.22	25.4	85.5	2.79	107	361	162	62	21
SS		14	2	86	54	7.275	7.78	10.91	15.9	50.7	4.52	174	553	262	101	32
SS		15	1	89	45	3.169	3.89	3.17	15.2	28.5	1.25	48	90	73	28	5
SS		17	1	86	75	2.467	3.89	2.47	42.4	142.5	2.72	105	352	158	61	20
SS		21	1	90	143	1.617	3.89	4.85	37.9	167.8	4.78	184	814	277	107	47
SS		22	2	81	79	2.946	7.78	4.42	60.3	183.7	6.93	267	812	402	155	47
SS		23	1	89	85	1.348	3.89	1.35	58.1	66.5	2.04	78	90	118	45	5
SS		25	2	88	105	2.281	7.78	4.56	64.9	232.8	7.70	296	1,062	447	172	62
SS		26	2	88	89	2.109	7.78	4.22	68.4	249.4	7.50	288	1,052	435	167	61
SS		30	1	82	86	.792	3.89	1.58	84.9	275.5	3.50	135	436	203	78	25
SS		31	1	90	138	.742	3.89	1.48	113.1	494.0	4.36	168	733	253	97	43
SS	Totals		15	86	74	28.965	58.33	43.23	42.8	147.0	48.09	1,849	6,354	2,789	1,073	369
SL		33	1	82	148	.655	3.89	1.31	116.6	432.3	4.89	153	566	283	89	33
SL		37	1	90	103	.521	3.89	1.04	142.3	612.8	4.74	148	638	275	86	37
SL		54	1	75	134	.244	3.89	.73	298.3	1485.2	7.00	219	1,089	406	127	63
SL		55	1	82	147	.236	3.89	.94	233.9	1235.0	7.06	221	1,164	409	128	68
SL		65	1	83	112	.169	3.89	.34	506.1	2451.0	5.47	171	827	317	99	48
SL	Totals		5	83	130	1.824	19.44	4.36	208.8	981.8	29.16	911	4,285	1,691	528	249
RA		13	1	83	74	4.219	3.89	4.22	23.5	72.0	2.73	99	304	158	58	18
RA		15	4	82	66	12.675	15.55	12.67	29.0	81.0	10.11	368	1,027	586	213	60
RA		16	2	81	54	5.570	7.78	5.57	31.0	67.5	4.75	173	376	275	100	22
RA		18	4	82	66	8.802	15.55	11.00	36.1	95.4	10.92	397	1,050	633	230	61
RA		19	1	81	48	1.975	3.89	1.97	41.7	72.0	2.27	82	142	131	48	8
RA		20	1	82	25	1.782	3.89	1.78	27.9	99.0	1.37	50	176	79	29	10
RA	Totals		13	82	62	35.023	50.55	37.22	31.4	82.6	32.13	1,169	3,075	1,864	678	178
DL		33	1	89	137	.655	3.89	1.96	109.8	566.8	5.93	216	1,113	344	125	65
DL		34	1	89	140	.617	3.89	1.85	110.7	576.3	5.63	205	1,066	327	119	62
DL	Totals		2	89	138	1.271	7.78	3.81	110.2	571.4	11.56	420	2,180	671	244	126
WL		33	1	86	118	.655	3.89	.65	31.5	57.0	.66	21	37	38	12	2
WL	Totals		1	86	118	.655	3.89	.65	31.5	57.0	0.66	21	37	38	12	2
Totals			61	86	79	117.186	237.20	173.14	45.8	173.8	235.52	7930	30,091	13,660	4,600	1,745

TC		TSTNDSUM		Stand Table Summary												
Project														TILRIDG		
T01S R09W S25 T0002										T01S R09W S25 T0002						
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees			Page:	1				
01S	09W	25	AREA2		0002	30.00	6	21			Date:	05/13/2010				
											Time:	8:30:56AM				
Spc	S T	DBH	Sample Trees	Av FF 16'	Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
WL		20	2	88	92	8.318	18.15	12.48	51.8	206.7	20.68	646	2,579	621	194	77
WL		22	1	90	93	3.437	9.07	6.87	49.1	210.0	10.81	338	1,444	324	101	43
WL		25	1	87	96	2.662	9.07	5.32	67.4	265.0	11.48	359	1,411	344	108	42
WL		32	1	87	130	1.625	9.07	3.25	113.5	535.0	11.84	369	1,738	355	111	52
WL		34	1	89	96	1.439	9.07	2.88	120.6	515.0	11.11	347	1,482	333	104	44
WL	Totals	6	88	96		17.480	54.44	30.80	66.8	280.9	65.91	2,059	8,653	1,977	618	260
RA		10	1	81	64	16.636	9.07	16.64	5.4	18.0	2.46	89	299	74	27	9
RA		11	2	83	56	27.497	18.15	27.50	11.6	40.5	8.77	319	1,114	263	96	33
RA		13	1	82	62	9.844	9.07	9.84	20.3	63.0	5.50	200	620	165	60	19
RA		14	3	81	55	25.463	27.22	25.46	23.4	63.0	16.38	596	1,604	492	179	48
RA		19	2	83	75	9.216	18.15	13.82	37.9	123.0	14.40	524	1,700	432	157	51
RA	Totals	9	82	60		88.655	81.66	93.26	18.5	57.2	47.52	1,728	5,338	1,426	518	160
WH		12	1	89	74	11.553	9.07	11.55	18.5	66.5	6.86	214	768	206	64	23
WH		14	1	90	73	8.488	9.07	16.98	15.3	66.5	8.29	259	1,129	249	78	34
WH		16	1	90	40	6.498	9.07	6.50	22.8	47.5	4.74	148	309	142	44	9
WH	Totals	3	90	65		26.538	27.22	35.03	17.7	63.0	19.88	621	2,206	596	186	66
DL		10	1	89	49	16.636	9.07	16.64	9.3	30.0	4.23	154	499	127	46	15
DL		14	1	86	74	8.488	9.07	16.98	14.1	55.0	6.58	239	934	197	72	28
DL	Totals	2	88	57		25.123	18.15	33.61	11.7	42.6	10.81	393	1,433	324	118	43
SL		24	1	89	72	2.888	9.07	5.78	45.6	160.0	6.84	263	924	205	79	28
SL	Totals	1	89	72		2.888	9.07	5.78	45.6	160.0	6.84	263	924	205	79	28
Totals		21	85	65		160.685	190.54	198.48	25.5	93.5	150.96	5064	18,554	4,529	1,519	557



TC TLOGSTVB

**Log Stock Table - MBF**  
Project: **TILRIDG**

T01S R09W S25 T0001

T01S R09W S25 T0001

TwP 01S Rge 09W Sec 25 Tract AREA1 Type 0001 Acres 58.00 Plots 14 Sample Trees 61  
Page 1  
Date 5/17/2010  
Time 2:01:44PM

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
WH		DO	2M	40			526	5.0	499	60.8					47	101	245	106		
WH		DO	3M	24			26	5.0	25	3.1								25		
WH		DO	3M	32			20	5.0	19	2.4			19							
WH		DO	3M	34			21	5.0	20	2.4			20							
WH		DO	3M	40			215	5.0	204	24.8			11	54	38	47	32	23		
WH		DO	4M	12			2	5.0	2	.2			1	1						
WH		DO	4M	14			1	5.0	1	.1			1							
WH		DO	4M	15			1	5.0	1	.2				1						
WH		DO	4M	16			6	5.0	6	.7			6							
WH		DO	4M	17			3	5.0	3	.3			2	1						
WH		DO	4M	26			3	5.0	3	.4			3							
WH		DO	4M	28			4	5.0	4	.4			4							
WH		DO	4M	30			3	5.0	3	.4			3							
WH		DO	4M	31			4	5.0	4	.5			4							
WH		DO	4M	38			4	5.0	4	.4			4							
WH		DO	4M	40			25	5.0	24	2.9			24							
WH		Totals					865	5.0	821	47.1			81	77	38	94	133	268	131	
SS		DO	2M	40			239	5.0	227	61.6						61	131	34		
SS		DO	3M	32			30	5.0	28	7.6			10	18						
SS		DO	3M	38			10	5.0	9	2.5			4	5						
SS		DO	3M	40			68	5.0	65	17.6			11		46	8				
SS		DO	4M	15			2	5.0	2	.5			2							
SS		DO	4M	18			4	5.0	4	1.1			4							
SS		DO	4M	24			6	5.0	5	1.4			5							
SS		DO	4M	27			2	5.0	2	.6			2							
SS		DO	4M	28			6	5.0	5	1.4			3	2						
SS		DO	4M	40			22	5.0	21	5.7				21						
SS		Totals					388	5.0	369	21.1			42	46	46	8	61	131	34	
RA		DO	2M	18			11	10.0	10	5.7					10					
RA		DO	3M	36			20	10.0	18	10.3				18						
RA		DO	3M	40			34	10.0	31	17.4			14	17						
RA		DO	4M	12			3	10.0	2	1.3			2							
RA		DO	4M	31			11	10.0	10	5.6			10							
RA		DO	4M	32			17	10.0	15	8.3			15							
RA		DO	4M	34			11	10.0	10	5.7			10							
RA		DO	4M	36			9	10.0	8	4.6			8							
RA		DO	4M	37			32	10.0	29	16.4			29							
RA		DO	4M	38			10	10.0	9	5.2			9							
RA		DO	4M	40			39	10.0	35	19.5			35							
RA		Totals					198	10.0	178	10.2			132	36	10					
SL		DO	2M	40			180	5.0	171	68.9								27	109	34
SL		DO	3M	14			2	5.0	2	.7							2			
SL		DO	3M	32			8	5.0	8	3.2								8		
SL		DO	3M	34			12	5.0	12	4.7									12	
SL		DO	3M	38			4	5.0	4	1.6			4							
SL		DO	3M	40			55	5.0	52	20.9			5						47	

TC TLOGSTVB

**Log Stock Table - MBF**  
**Project: TILRIDG**

T01S R09W S25 T0001

T01S R09W S25 T0001

Twp Rge Sec Tract Type Acres Plots Sample Trees  
 01S 09W 25 AREA1 0001 58.00 14 61

Page 2  
 Date 5/17/2010  
 Time 2:01:44PM

SPP	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches													
									T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13
	SL				Totals	262	5.0	249	14.2					9				2	35	58	109	34
	DL	DO	2M	40		121	5.0	115	91.1									40		76		
	DL	DO	3M	36		5	5.0	5	3.8					5								
	DL	DO	3M	40		7	5.0	6	5.1					6								
	DL				Totals	133	5.0	126	7.2					11				40		76		
	WL	DO	CL	40																		
	WL	DO	4M	24		2	5.0	2	100.0				2									
	WL				Totals	2	5.0	2	.1				2									
	Total All Species					1,848	5.5	1,745	100.0			123	257	140	112	194	441	201	134	109	34	



## PROJECT SUMMARY SHEET

Sale: Tillison Ridge

### CONSTRUCTION

Point	C to D	8+00	stations =	\$2,887.60
Point	E to F	13+30	stations =	\$4,966.25
<b>SUBTOTAL CONSTRUCTION</b>				<b>\$7,853.85</b>

### IMPROVEMENT

Point	A to B	259+40	stations =	\$17,306.06
Point	G to H	39+80	stations =	\$1,240.40
<b>SUBTOTAL IMPROVEMENT</b>				<b>\$18,546.46</b>

### SPECIAL PROJECTS

Brush	12.0	miles of road	\$8,400.00
Vacate Road - Segment I to J			\$6,647.86
<b>SUBTOTAL SPECIAL PROJECTS</b>			<b>\$15,047.86</b>

**MOVE IN** **\$2,221.83**

**GRAND TOTAL** **\$43,670.00**

## PIT RUN & RIP RAP COST SUMMARY

Pit:	Pit_run	Location:	NE 1/4 SE 1/4 Section 25 T1S R9W
Sale:	<b>Tillison Ridge</b>	Road:	110 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	110 c.y.
Drill Pct.:	100%	In Place Total:	79 c.y.

Load Dump Truck: \$1.40 /cu.yd. x 110 cu.yds. = \$154.00

Subtotal \$154.00

Move in Excavator (Costed with Crushed Rock)	0	@	\$0.00	=	\$0.00
Move in Trucks (Costed with Crushed rock)	0	@	\$0.00	=	\$0.00
				Subtotal	\$0.00

Base Cost= \$1.40 Per Cu.Yd.

**TOTAL PRODUCTION COSTS \$154.00**

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 Energy Dissipator (Riprap)	5.81	1.40	1.40	8.61	30	\$258.30
A to B Ditchline Fill (Pit-Run)	3.58	1.00	1.40	5.98	30	\$179.40
G to H Spot Rock (Pit-Run)	1.71	1.40	1.40	4.51	50	\$225.50
				Total C.Y.	110	Sub Total
						\$663.20

**TOTAL ROCKING COSTS \$663.20**

### CRUSHED ROCK COST SUMMARY

Stockpile:	1 1/2"-0"	Location:	Fisherman's Access 1 1/2"-0" Stockpile
Sale:	<b>Tillison Ridge</b>	Road:	330 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	330 c.y.
Drill Pct.:	100%	In Place Total:	236 c.y.

Load Dump Truck: \$0.70 /cu.yd. x 330 cu.yds. = \$231.00

Subtotal \$231.00

Move in Loader 1 @ \$292.14 = \$292.14  
 Move in Trucks 2 @ \$46.14 = \$92.28  
 Subtotal \$384.42

Base Cost= \$1.86 Per Cu.Yd. TOTAL PRODUCTION COSTS \$615.42

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 5200 5370 (Crushed)	5.35	1.35	1.86	8.56	40	\$342.40
A to B 14055 14155 (Crushed)	5.79	1.35	1.86	9.00	30	\$270.00
A to B Culvert Backfill (Crushed)	5.35	0.70	1.86	7.91	10	\$79.10
A to B Spot rock (Crushed)	5.35	1.35	1.86	8.56	250	\$2,140.00
				Total C.Y.	330	Sub Total

TOTAL ROCKING COSTS \$2,831.50

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

Sale: Tillison Ridge

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
5.0	Pavement	30
0.0	Main Lines	7
4.5	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	\$267.13		\$46.00	0.00	4.00	4	\$184.00	\$451.13
1	Brush Cutter	\$259.71		\$4.00	0.00	0.00	0	\$0.00	\$259.71
1	Graders	\$290.36		\$3.65	0.00	0.00	0	\$0.00	\$290.36
1	Excavators (Large)	\$453.81	1	\$44.80	0.00	4.00	4	\$179.20	\$633.01
1	Tractor (D8)	\$413.18	2	\$15.10	0.00	4.00	4	\$60.40	\$473.58
1	Dump Truck (10 cy +)	\$59.80		\$2.85	0.00	0.00	0	\$0.00	\$59.80
1	Water Truck (2500 Gal)	\$54.24		\$2.85	0.00	0.00	0	\$0.00	\$54.24
<b>TOTAL MOVE-IN COSTS:</b>								<b>\$2,221.83</b>	



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

### *Tillison Ridge*

#### 1. Type of Sale

Thinning and Regeneration harvest, Recovery

#### 2. Legal Description

Section 25, T 1 S, R 9 W, W.M. Tillamook County, Oregon

#### 3. Sale Acreage

Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 Modified Clearcut	65	58
Area 2 Partial Cut	31	30

#### Gross Acres

Area within the Timber Sale Boundary signs

#### Net acres

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 20 variable radius plots were taken. 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 measured for merchantable height, diameter, and form factor.

##### B. Plot size

A basal area factor of 54.45 was point of observation was 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 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. Heights 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. Take and leave trees were determined from the plot data to meet prescription targets. Based on net board feet per acre the COEFF % and S.E. % for Area 1 is 65.9% and 18.2% respectively, and Area 2 is 81.4% and 36.3% respectively.

**6. Hidden Defect and Breakage**

A 5% for conifer and 10% for hardwood hidden defect and breakage was applied.

**7. Timber Description**

The sale areas are naturally regenerated stands likely resulting from windstorm disturbance. No previous management has occurred in the sale areas.

Area 1 is a mixed conifer and hardwood stand approximately 40-60 years old. The conifer species are spruce, hemlock, and a small amount of Douglas-fir. The concentrations of alder vary from 1-2 acre pockets to the largest area of 20 acres.

Area 2 is a mixed species stand approximately 40 years old and comprised of Douglas-fir, hemlock, and spruce with small pockets (1-2 acres) of alder.

**8. Cruiser Names/Dates**

Cruised by district staff, May 2007

**9. Revenue Distribution**

FDF: 100%

Tax Code: 9-1

Deed Numbers: 168

**10. Attachments**

Stand Table

Volume Summaries

Log Stock Tables

Logging Plan

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

DL – Douglas-fir leave

DF – Douglas-fir take

RL – Red alder leave

RA – Red alder take

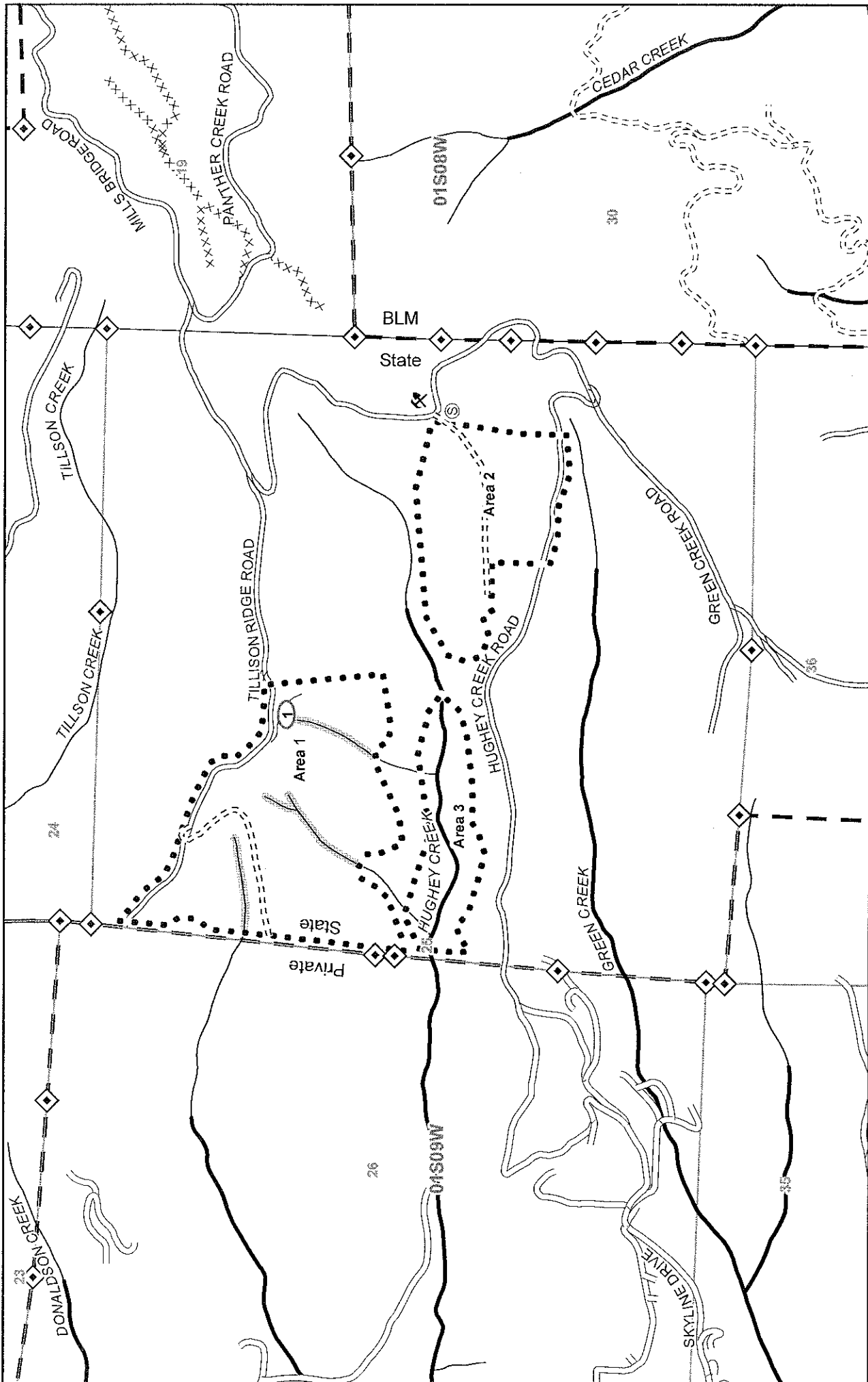
SL – Sitka spruce leave

SS – Sitka spruce take

WL – Western hemlock leave

WH – Western hemlock take





**LOGGING PLAN**  
 Timber Sale Contract No. 341-11-20  
 Tillison Ridge  
 Portions of Section 25  
 T1S, R9W, W.M.,  
 Tillamook County, Oregon

**Legend:**

- Rock source
- Stock pile
- Waste area
- Bridge
- Gate
- Survey corner
- Domestic water supply intake
- Truck turn-around
- Helicopter landing zone
- Helicopter retention area
- Landing
- Buffer
- Non-required thinning
- Cable yarding
- Ground yarding
- Helicopter yarding
- Downhill yarding
- Green tree retention area
- Cultural site
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- Perennial Type-N stream
- Unsurfaced road
- Paved road
- Abandoned road
- Swing road
- Non-project road
- Blocked road
- Road construction
- OHV trail
- Non-motorized trail
- Transmission line
- Railroad

**Acres**

Area	Operation	Gross	Net
1	Modified clearcut	63	58
2	Partial	31	30
3	Down wood creation	18	0
<b>Total</b>		<b>112</b>	<b>88</b>

**Scale:** 1,000 0 1,000 Feet

**North Arrow:** N

**BLM State**

**Private**

**Tillamook District GIS**  
 April 26, 2010  
 This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.