



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Swiss MISC Sale 342-03-29

District: Tillamook

Date: 5/9/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$356,292.48	\$0.00	\$356,292.48
		Project Work	(\$180,400.00)
		Advertised Value	\$175,892.48



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Swiss MISC Sale 342-03-29

District: Tillamook

Location: Portions of Sect. 13, 14, 23, 24, 25, 26; T1N, R10W; Portions of Sect. 31, T2N, R9W; Portions of Sect. 36, T2N, R10W, W.M., Tillamook County, Oregon

Date: 5/9/03

Stand Stocking: 20%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	12	0	95
Western Hemlock / Fir	13	0	95
Sitka Spruce	13	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Total
3S	1,602	213	96	1,911
Total	1,602	213	96	1,911

Comments: Pond Values Used: 1st Quarter 2003 + Local Pond Values

Hardwood stumpage = Local Pond Value - Logging Costs
 Red alder pond value = \$515.00 (March 2003)
 Logging Cost = \$ 262.86
 Hardwood stumpage = \$ 252.14



Timber Sale Appraisal Logging Conditions Swiss MISC Sale 342-03-29

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 80.08%
 Western Hemlock / Fir 78.02%
 Sitka Spruce 100.00%

Yarding Distance: Medium (800 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: 5 **Bd. Ft./Load:** 3,000
Cost/MBF: \$171.87

Machines:

Log Loader (A)
Tower Yarder (Small)

Combination#: 2 Douglas - Fir 19.92%
 Western Hemlock / Fir 21.98%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 8 **Bd. Ft./Load:** 3,000
Cost/MBF: \$125.03

Machines:

Log Loader (B)
Tire Skidder



Timber Sale Appraisal

Logging Costs

Swiss MISC

Sale 342-03-29

"STEWARDSHIP IN FORESTRY"

Date: 5/9/03

Operating Seasons: 1.6

Profit & Risk: 15%

Project Costs: \$180,400

Other Costs (P/R): \$5,822

Slash Disposal: \$0

Other Costs: \$7,215

Road Maintenance: \$2.72

Miles of Road			
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	3.0
Western Hemlock / Fir	\$0.00	3.0	3.0
Sitka Spruce	\$0.00	3.0	3.0

Local Pond Values

Date	Species	Grade	Value
5/9/03	Douglas - Fir	2S	\$530.00
5/9/03	Douglas - Fir	3S	\$505.00
5/9/03	Douglas - Fir	4S	\$455.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Swiss MISC Sale 342-03-29

Costs	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce
Logging	162.54	161.58	171.87
Road Maintenance	2.86	2.86	2.86
Fire Protection	2.27	2.27	2.27
Hauling	80.84	53.79	53.79
Other (P/R appl.)	3.05	3.05	3.05
Profit & Risk	37.73	33.53	35.08
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	3.78	3.78	3.78
Total	295.07	262.86	274.70

Amortization	0.00	0.00	0.00
Pond Value	505.00	325.00	345.00
Stumpage	209.93	62.14	70.30
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Swiss MISC Sale 342-03-29

Amortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce
MBF	0.00	0.00	0.00
Value	0.00	0.00	0.00
Total	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce
MBF	1,602.00	213.00	96.00
Value	209.93	62.14	70.30
Total	336,307.86	13,235.82	6,748.80

Gross Timber Sale Value

Recovery \$356,292.48

Prepared by: Colleen Kiser

Date: 5/9/03

District: Tillamook

Phone: (503) 842-2545

Additional Costs

Swiss Misc.



Cable Yarding Volume:	1508 MBF
Ground Yarding Volume:	403 MBF
Total Sale Volume:	1911 MBF

"STEWARDSHIP IN FORESTRY"

ADDITIONAL COSTS - PROFIT & RISK TO BE ADDED						
Yarding & Loading:	Cost / MBF		Volume (MBF)			
Brand & Paint:	\$ 2	x	1911	=		\$ 3,822
	Cost/Each					
Intermediate Supports (per support)	\$ 100	x	20	=		\$2,000
OTHER COSTS TOTAL						\$ 5,822
ADDITIONAL COSTS - PROFIT & RISK INCLUDED						
Non-Project Roads*						
Road 1	18	Stations	x	\$ 65	=	\$1,170
Road 2	4	Stations	x	\$ 130	=	\$520
Road 3	5	Stations	x	\$ 65	=	\$325
Road 4	2	Stations	x	\$ 65	=	\$130
	29				Total	\$ 2,145
	Stations	x	Yrd ³	x	\$/Yard	
Pit Run Rock	29		20	x	\$6.50	\$ 3,770
Additional Move In Cost						\$ 700
**Ditch Pulling and End Haul (per station)			\$20	x	30	\$ 600
OTHER COSTS TOTAL						\$ 7,215

ROAD MAINTENANCE					
	\$/Mile	MMBF	Miles		\$/MBF
***Grading:	\$500	1.91	8		\$ 2.00
	\$/Yd	MMBF	Miles	CuYd	\$/MBF
****Maintenance rock	\$18.00	1.91	8	10	\$ 0.72
TOTAL ROAD MAINTENANCE COST / MBF:					\$ 2.72

**Includes cost for excavating, hauling, compaction, and sediment control devices.

***Assumes grading the road once per 2 MMBF

****Assumes 10 cy for normal maintenance /2 MMBF/mile

PROJECT SUMMARY SHEET

Sale: Swiss MISC

CONSTRUCTION

Point	L to M	12+90	stations =	\$10,292.81
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SUBTOTAL CONSTRUCTION	\$10,292.81
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IMPROVEMENT

Point	A to B	115+80	stations =	\$76,913.42
Point	C to D	1+00	stations =	\$1,091.22
Point	E to F	116+90	stations =	\$35,160.05
Point	G to H	3+00	stations =	\$1,483.69
Point	F to I	22+00	stations =	\$8,841.10
Point	J to K	75+65	stations =	\$23,872.94

SUBTOTAL IMPROVEMENT	\$147,362.42
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SPECIAL PROJECTS

Stockpile	\$18,677.04
Remove Culverts From STATE land	\$846.49

SUBTOTAL SPECIAL PROJECTS	\$19,523.53
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MOVE IN

\$3,221.23

GRAND TOTAL	\$180,400.00
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SUMMARY OF CONSTRUCTION COST

Sale:	<u>Swiss Misc</u>		Road: <u>A to B</u>
Construction -	<u>+00</u> stations <u>0.00</u> miles		Improvement -
			<u>115+80</u> stations <u>2.19</u> miles
CLEARING AND GRUBBING -			
Side cast		0.71 acres @	\$540.00 per acre = \$384.30
Widening		0.17 acres @	\$540.00 per acre = \$90.50
Scattering		3.45 acres @	\$815.00 per acre = \$2,813.96
Piling		0.00 acres @	\$905.00 per acre = \$0.00
Endhaul		0.00 acres @	\$1,500.00 per acre = \$0.00
			TOTAL CLEARING AND GRUBBING
			\$3,288.75
EXCAVATION -			
Basin Clean	79+90 to 80+30	150 cys. @	\$1.40 per c.y. = \$210.00
Road Earthwork	55+00 to 62+00	7.0 sta. @	\$65.00 per sta. = \$455.00
Pullback	32+50 to 33+20	94 cys. @	\$1.40 per c.y. = \$131.60
Pullback	58+50 to 59+10	107 cys. @	\$1.40 per c.y. = \$149.80
Pullback	60+00 to 62+50	334 cys. @	\$1.40 per c.y. = \$467.60
Pullback	71+20 to 73+00	240 cys. @	\$1.40 per c.y. = \$336.00
Pullback	74+50 to 74+80	40 cys. @	\$1.40 per c.y. = \$56.00
Pullback	76+40 to 77+20	107 cys. @	\$1.40 per c.y. = \$149.80
Pullback	80+50 to 83+70	427 cys. @	\$1.40 per c.y. = \$597.80
Pullback	86+40 to 89+20	374 cys. @	\$1.40 per c.y. = \$523.60
Pullback	113+00 to 115+80	374 cys. @	\$1.40 per c.y. = \$523.60
Widening	55+30 to 56+30	100 cys. @	\$1.40 per c.y. = \$140.00
Widening	58+70 to 61+60	387 cys. @	\$1.40 per c.y. = \$541.80
Spread & Compact		2734 cys. @	\$0.35 per c.y. = \$956.90
			TOTAL EXCAVATION
			\$5,239.50
ENDHAUL -			
Basin Clean	79+90 to 80+30	150 cys. @	\$2.22 per c.y. = \$332.93
Pullback	32+50 to 33+20	94 cys. @	\$0.76 per c.y. = \$71.53
Pullback	58+50 to 59+10	107 cys. @	\$0.70 per c.y. = \$75.06
Pullback	60+00 to 62+50	334 cys. @	\$0.78 per c.y. = \$259.23
Pullback	71+20 to 73+00	240 cys. @	\$1.11 per c.y. = \$265.65
Pullback	74+50 to 74+80	40 cys. @	\$1.18 per c.y. = \$47.38
Pullback	76+40 to 77+20	107 cys. @	\$1.25 per c.y. = \$133.77
Pullback	80+50 to 83+70	427 cys. @	\$1.41 per c.y. = \$602.81
Pullback	86+40 to 89+20	374 cys. @	\$1.59 per c.y. = \$592.97
Pullback	113+00 to 115+80	374 cys. @	\$1.17 per c.y. = \$439.06
Widening	55+30 to 56+30	100 cys. @	\$0.61 per c.y. = \$61.00
Widening	58+70 to 61+60	387 cys. @	\$0.74 per c.y. = \$287.39
			TOTAL ENDHAUL
			\$3,168.78
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	196 LF of 18"	\$2,918.20	40 LF of 24" \$726.90
	0 LF of 30"	\$0.00	0 LF of 36" \$0.00
	0 LF of 42"	\$0.00	46 LF of 48" \$1,456.28
	0 LF of 54"	\$0.00	0 LF of 60" \$0.00
		<u>\$2,918.20</u>	<u>\$2,183.18</u>
	Half Rounds		
	40 LF of 21"	\$456.00	0 LF of 30" \$0.00
	0 LF of 36"	\$0.00	0 LF of 42" \$0.00
		<u>\$456.00</u>	<u>\$0.00</u>
	Culvert Stakes & Markers		
	8 stakes	\$62.27	
	8 markers	\$48.00	
		<u>\$110.27</u>	
			TOTAL CULVERTS
			\$5,667.65
SURFACING-			
0+00 to 94+00	2,927 cy. of	Crushed @	\$18.40 per c.y.= \$53,862.93
Culvert Backfill	80 cy. of	Crushed @	\$17.10 per c.y.= \$1,368.00
Place @ 80+10 (Fill Armor)	100 cy. of	RIPRAP @	\$9.44 per c.y.= \$944.00
			TOTAL SURFACING
			\$56,174.93
SPECIAL PROJECTS			
Grade and shape road -	94.00 stations @	\$17.40 per station	\$1,635.60
Construct 20 lineal feet of lead-in ditch to culvert inlet -	0.17 hour @	\$130.00 per hour	\$21.67
Grass seed and fertilize -	4.35 acres @	\$180.00 per acre	\$782.21
Mulch - (@ culvert areas)	0.93 acres @	\$1,000.00 per acre	\$934.34
			TOTAL SPECIAL PROJECTS
			\$3,373.82

GRAND TOTAL **\$76,913.42**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Swiss Misc</u>				Road: <u>C to D</u>
Construction -	<u> </u> +00 stations <u> </u> 0.00 miles				Improvement - <u> </u> 1+00 stations <u> </u> 0.02 miles
CLEARING AND GRUBBING -					
Side cast		0.00 acres @	\$540.00 per acre =	\$0.00	
Widening		0.0037 acres @	\$540.00 per acre =	\$1.98	
Scattering		0.0367 acres @	\$815.00 per acre =	\$29.94	
Piling		0.00 acres @	\$905.00 per acre =	\$0.00	
Endhaul		0.0367 acres @	\$1,500.00 per acre =	\$55.10	
			<u>TOTAL CLEARING AND GRUBBING</u>		\$87.02
EXCAVATION -					
Road Earthwork		1.0 sta. @	\$65.00 per sta. =	\$65.00	
Widening	+00 to 1+00	180 cys. @	\$1.40 per c.y. =	\$252.00	
Spread & Compact		180 cys. @	\$0.35 per c.y. =	\$63.00	
			<u>TOTAL EXCAVATION</u>		\$380.00
 ENDHAUL -					
Widening	+00 to 1+00	180 cys. @	\$0.78 per c.y. =	\$139.71	
			<u>TOTAL ENDHAUL</u>		\$139.71
 CULVERTS - MATERIALS & INSTALLATION					
Culverts					
		0 LF of 18"	\$0.00	0 LF of 24"	\$0.00
		0 LF of 30"	\$0.00	0 LF of 36"	\$0.00
		0 LF of 42"	\$0.00	0 LF of 48"	\$0.00
		0 LF of 54"	\$0.00	0 LF of 60"	\$0.00
		\$0.00		\$0.00	
Half Rounds					
		0 LF of 21"	\$0.00	0 LF of 30"	\$0.00
		0 LF of 36"	\$0.00	0 LF of 42"	\$0.00
		\$0.00		\$0.00	
Culvert Stakes & Markers					
		0 stakes	\$0.00		
		0 markers	\$0.00		
		\$0.00			
				<u>TOTAL CULVERTS</u>	\$0.00
 SURFACING-					
0+00 to 1+00	50 cy. of	Crushed	@	\$9.12 per c.y.=	\$456.15
				<u>TOTAL SURFACING</u>	\$456.15
 SPECIAL PROJECTS					
Grade and shape road -		1.00 stations @	\$17.40 per station	\$17.40	
Grass seed and fertilize -		0.0404 acres @	\$180.00 per acre	\$7.27	
Mulch -		0.0037 acre @	\$1,000.00 per acre	\$3.67	
			<u>TOTAL SPECIAL PROJECTS</u>		\$28.35

GRAND TOTAL **\$1,091.22**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Swiss Misc</u>		Road:	<u>E to F</u>
Construction -	+00 stations <u>0.00 miles</u>		Improvement -	<u>116+90 stations</u> <u>2.21 miles</u>
CLEARING AND GRUBBING -				
Brushing (0+00 to 7+40) by hand		0.25 acres @	\$905.00 per acre =	\$230.61
				<u>TOTAL CLEARING AND GRUBBING</u>
				\$230.61
EXCAVATION -				
				<u>TOTAL EXCAVATION</u>
				\$0.00
ENDHAUL -				
				<u>TOTAL ENDHAUL</u>
				\$0.00
CULVERTS - MATERIALS & INSTALLATION				
Culverts				
30	LF of 18"	\$442.50	0	LF of 24" \$0.00
0	LF of 30"	\$0.00	0	LF of 36" \$0.00
0	LF of 42"	\$0.00	0	LF of 48" \$0.00
0	LF of 54"	<u>\$0.00</u>	0	LF of 60" <u>\$0.00</u>
		\$442.50	\$0.00	
Half Rounds				
0	LF of 21"	\$0.00	0	LF of 30" \$0.00
0	LF of 36"	<u>\$0.00</u>	0	LF of 42" <u>\$0.00</u>
		\$0.00	\$0.00	
Culvert Stakes & Markers				
0	stakes	\$0.00		
1	markers	<u>\$6.00</u>		
		\$6.00		
				<u>TOTAL CULVERTS</u>
				\$448.50
SURFACING-				
0+00 to 116+90	2,784 cy. of	Crushed	@	\$11.38 per c.y.= \$31,666.82
				<u>TOTAL SURFACING</u>
				\$31,666.82
SPECIAL PROJECTS				
Grade and shape road -	116.90 stations @	\$17.40 per station	\$2,034.06	
Clean & flush-out culverts at stations 7+65, 31+60, 42+75, 91+90 & 107+15	5 ea. @	\$57.00 ea.	\$285.00	
Grass seed and fertilize -	2.68 acres @	\$180.00 per acre	\$483.06	
Mulch - (culvert area @ 3+50)	0.01 acre @	\$1,000.00 per acre	\$12.00	
				<u>TOTAL SPECIAL PROJECTS</u>
				\$2,814.12

GRAND TOTAL **\$35,160.05**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Swiss Misc</u>			Road:	<u>G to H</u>
Construction -	+00 stations <u>0.00</u> miles			Improvement -	3+00 stations <u>0.06</u> miles
CLEARING AND GRUBBING -					
Scattering		0.21 acres @	\$815.00 per acre =		\$168.39
					TOTAL CLEARING AND GRUBBING
					\$168.39
EXCAVATION -					
Road Earthwork		3.0 sta. @	\$65.00 per sta. =		\$195.00
					TOTAL EXCAVATION
					\$195.00
ENDHAUL -					
					TOTAL ENDHAUL
					\$0.00
CULVERTS - MATERIALS & INSTALLATION					
Culverts					
	0	LF of 18"	\$0.00		
	0	LF of 30"	\$0.00		
	0	LF of 42"	\$0.00		
	0	LF of 54"	<u>\$0.00</u>		
			\$0.00		
				0	LF of 24" \$0.00
				0	LF of 36" \$0.00
				0	LF of 48" \$0.00
				0	LF of 60" <u>\$0.00</u>
					\$0.00
Half Rounds					
	0	LF of 21"	\$0.00		
	0	LF of 36"	<u>\$0.00</u>		
			\$0.00		
				0	LF of 30" \$0.00
				0	LF of 42" <u>\$0.00</u>
					\$0.00
Culvert Stakes & Markers					
	0	stakes	\$0.00		
	0	markers	<u>\$0.00</u>		
			\$0.00		
					TOTAL CULVERTS
					\$0.00
SURFACING-					
0+00 to 3+00	191	cy. of	PIT-RUN	@	\$5.48 per c.y.= \$1,045.79
					TOTAL SURFACING
					\$1,045.79
SPECIAL PROJECTS					
Grade and shape road -			3.00 stations @	\$17.40 per station	\$52.20
Grass seed and fertilize -			0.12 acres @	\$180.00 per acre	\$22.31
					TOTAL SPECIAL PROJECTS
					\$74.51
GRAND TOTAL					\$1,483.69

TOTAL SPECIAL PROJECTS \$74.51

GRAND TOTAL \$1,483.69

SUMMARY OF CONSTRUCTION COST

Sale: Swiss Misc

Road: F to I

Construction - +00 stations
 0.00 miles

Improvement - 22+00 stations
 0.42 miles

CLEARING AND GRUBBING -

Side cast	0.00 acres @	\$540.00 per acre =	\$0.00
Widening	0.00 acres @	\$540.00 per acre =	\$0.00
Scattering	0.51 acres @	\$815.00 per acre =	\$411.62
Brushing	0.00 acres @	\$905.00 per acre =	\$0.00
Endhaul	0.00 acres @	\$1,500.00 per acre =	\$0.00
TOTAL CLEARING AND GRUBBING			\$411.62

EXCAVATION -

Basin Clean	cys. @	\$1.40 per c.y. =	\$0.00
Road Earthwork	sta. @	\$65.00 per sta. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Pullback	cys. @	\$1.40 per c.y. =	\$0.00
Widening	cys. @	\$1.40 per c.y. =	\$0.00
Widening	cys. @	\$1.40 per c.y. =	\$0.00
0.00	cys. @	\$1.40 per c.y. =	\$0.00
0.00	cys. @	\$1.40 per c.y. =	\$0.00
Spread & Compact	0 cys. @	\$0.35 per c.y. =	\$0.00
TOTAL EXCAVATION			\$0.00

ENDHAUL -

Basin Clean		cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Pullback	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Widening	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
Widening	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
0.00	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
0.00	+00 0.00 +00	0 cys. @	per c.y. =	\$0.00
TOTAL ENDHAUL			\$0.00	

CULVERTS - MATERIALS & INSTALLATION

Culverts

LF of 18"	\$0.00	LF of 24"	\$0.00
LF of 30"	\$0.00	LF of 36"	\$0.00
LF of 42"	\$0.00	LF of 48"	\$0.00
LF of 54"	<u>\$0.00</u>	LF of 60"	<u>\$0.00</u>
	\$0.00		\$0.00

Half Rounds

LF of 21"	\$0.00	LF of 30"	\$0.00
LF of 36"	<u>\$0.00</u>	LF of 42"	<u>\$0.00</u>
	\$0.00		\$0.00

Culvert Stakes & Markers

stakes	\$0.00
markers	<u>\$0.00</u>
	\$0.00

TOTAL CULVERTS \$0.00

SURFACING-

0+00 to 22+00 1,184 cy. of PIT-RUN @ \$6.37 per c.y.= \$7,538.69

TOTAL SURFACING \$7,538.69

SPECIAL PROJECTS

Grade and shape road -	22.00 stations @	\$17.40 per station	\$382.80
Grass seed and fertilize -	0.91 acres @	\$180.00 per acre	\$163.64
Mulch - (@ culvert areas)	0.34 acre @	\$1,000.00 per acre	\$344.35

TOTAL SPECIAL PROJECTS \$890.79

GRAND TOTAL \$8,841.10

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Swiss Misc</u>		Road:	<u>J to K</u>
Construction -	+00 stations <u>0.00</u> miles		Improvement -	<u>75+65</u> stations <u>1.43</u> miles
CLEARING AND GRUBBING -				
Scattering		1.74 acres @	\$815.00 per acre =	\$1,415.40
EXCAVATION -			TOTAL CLEARING AND GRUBBING	\$1,415.40
				TOTAL EXCAVATION
ENDHAUL -				\$0.00
				TOTAL ENDHAUL
				\$0.00
CULVERTS - MATERIALS & INSTALLATION				
	Culverts			
	LF of 18"	\$0.00	LF of 24"	\$0.00
	LF of 30"	\$0.00	LF of 36"	\$0.00
	LF of 42"	\$0.00	LF of 48"	\$0.00
	LF of 54"	<u>\$0.00</u>	LF of 60"	<u>\$0.00</u>
		\$0.00		\$0.00
	Half Rounds			
	LF of 21"	\$0.00	LF of 30"	\$0.00
	LF of 36"	<u>\$0.00</u>	LF of 42"	<u>\$0.00</u>
		\$0.00		\$0.00
	Culvert Stakes & Markers			
	stakes	\$0.00		
	markers	<u>\$0.00</u>		
		\$0.00		
			TOTAL CULVERTS	\$0.00
SURFACING-				
0+00 to 75+65	1,804 cy. of	Crushed @	\$11.22 per c.y.=	\$20,234.19
				TOTAL SURFACING
				\$20,234.19
SPECIAL PROJECTS				
Grade and shape road	75.65 stations @	\$17.40 per station		\$1,316.31
Grass seed and fertilize	3.13 acres @	\$180.00 per acre		\$562.69
Mulch - (@ culvert areas)	0.34 acre @	\$1,000.00 per acre		<u>\$344.35</u>
				TOTAL SPECIAL PROJECTS
				\$2,223.35
GRAND TOTAL				\$23,872.94

SUMMARY OF CONSTRUCTION COST

Sale: Swiss Misc Road: L to M

Construction - 12+90 stations Improvement - _____ stations
0.24 miles _____ miles

CLEARING AND GRUBBING -

Scattering 1.18 acres @ \$815.00 per acre = \$965.43

TOTAL CLEARING AND GRUBBING \$965.43

EXCAVATION -

Common	+00	to	+75	185 cy @	\$2.25 per cy =	\$415.63
Full Bench	+75	to	1+25	232 cy @	\$2.25 per cy =	\$520.92
Road Earthwork				11.7 sta. @	\$65.00 per sta. =	\$757.25
Remove OG Stumps				7 ea. @	\$50.00 ea. =	\$350.00

TOTAL EXCAVATION \$2,043.79

ENDHAUL -

Common	+00	to	+75	185 cy @	\$0.61 per cy =	\$112.68
Full Bench	+75	to	1+25	232 cy @	\$0.61 per cy =	\$141.23
Spread & Compact				416 cys. @	\$0.35 per c.y. =	\$145.68

TOTAL ENDHAUL \$399.60

CULVERTS - MATERIALS & INSTALLATION

Culverts

LF of 18"	\$0.00	LF of 24"	\$0.00
LF of 30"	\$0.00	LF of 36"	\$0.00
LF of 42"	\$0.00	LF of 48"	\$0.00
LF of 54"	\$0.00	LF of 60"	\$0.00
	<u>\$0.00</u>		<u>\$0.00</u>

Half Rounds

LF of 21"	\$0.00	LF of 30"	\$0.00
LF of 36"	\$0.00	LF of 42"	\$0.00
	<u>\$0.00</u>		<u>\$0.00</u>

Culvert Stakes & Markers

stakes	\$0.00
markers	\$0.00
	<u>\$0.00</u>

TOTAL CULVERTS \$0.00

SURFACING-

0+00 to 12+90 702 cy. of PIT-RUN @ \$9.19 per c.y.= \$6,457.05

TOTAL SURFACING \$6,457.05

SPECIAL PROJECTS

Grade and shape road	12.90 stations @	\$9.70 per station	\$125.13
Roll Subgrade Prior To Rocking	12.90 stations @	\$11.00 per station	\$141.90
Grass seed and fertilize	0.89 acres @	\$180.00 per acre	\$159.92

TOTAL SPECIAL PROJECTS \$426.95

GRAND TOTAL \$10,292.81

SUMMARY OF CONSTRUCTION COST

Site:	<u>Swiss Misc</u>		Stockpile: <u>Electric Creek Road</u> (J-K, Sta. 23+80 LT.)
Construction -	_____ stations _____ miles		Improvement - _____ stations _____ miles
CLEARING AND GRUBBING -			
Scattering	0.23 acres @	\$815.00 per acre =	\$187.10
		TOTAL CLEARING AND GRUBBING	\$187.10
EXCAVATION -			
		TOTAL EXCAVATION	\$0.00
ENDHAUL -			
		TOTAL ENDHAUL	\$0.00
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	LF of 18"	\$0.00	LF of 24"
	LF of 30"	\$0.00	LF of 36"
	LF of 42"	\$0.00	LF of 48"
	LF of 54"	<u>\$0.00</u>	LF of 60"
		\$0.00	<u>\$0.00</u>
	Half Rounds		
	LF of 21"	\$0.00	LF of 30"
	LF of 36"	<u>\$0.00</u>	LF of 42"
		\$0.00	<u>\$0.00</u>
	Culvert Stakes & Markers		
	stakes	\$0.00	
	markers	<u>\$0.00</u>	
		\$0.00	
		TOTAL CULVERTS	\$0.00
ROCK FLOOR & STOCKPILE			
100'x100' @ Sta. 20+20, LT.	371 cy. of	Pit Run @	\$8.54 per c.y.= \$3,170.72
Stockpile	1,413 cy. of	1 1/2" Crushed rock @	\$10.48 per c.y.= \$14,799.23
		TOTAL SURFACING	\$17,969.95
SPECIAL PROJECTS			
Develop Stockpile Site Area	4.00 hours @	\$130.00 per hour	\$520.00
		TOTAL SPECIAL PROJECTS	\$520.00
		GRAND TOTAL	\$18,677.04

PIT RUN ROCK DEVELOPMENT COST SUMMARY

Pit: <u>Illingsworth</u>	Location: <u>NE 1/4, NE 1/4, Section 23, T1N, R10W, W.M.</u>
Sale: <u>Swiss Misc</u>	Road: <u>1375 c.y.</u>
Swell: <u>1.30</u>	Stockpile Base: <u>c.y.</u>
Shrinkage: <u>1.16</u>	Total Truck Loads: <u>1375 c.y.</u>
Drill Pct.: <u>0%</u>	In Place Total: <u>1058 c.y.</u>

Pit Development including seeding all bare soil.	\$1,341.32
Strip rock: <u>\$1.50 /cu.yd.</u> x <u>1058 cu.yds.</u> =	\$1,586.86
Load Dump Truck: <u>\$0.60 /cu.yd.</u> x <u>1375 cu.yds.</u> =	\$825.17
Subtotal	\$3,753.35

Move in excavator -	\$358.40
Move in trucks	\$364.80
Subtotal	\$723.20

	TOTAL PRODUCTION COSTS	\$4,476.55
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Base Cost= \$3.26 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
G to H	\$1.32	\$0.90	\$3.26	\$5.48	191	\$1,045.79
F to I	\$2.21	\$0.90	\$3.26	\$6.37	1184	\$7,538.69
			Total C.Y.		1375	Sub Total \$8,584.48

	TOTAL ROCKING COSTS	\$8,584.48
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PIT RUN ROCK DEVELOPMENT COST SUMMARY

Pit: <u>Miami</u>	Location: <u>SE 1/4, NW 1/4, Section 15, T1N, R10W, W.M.</u>	
Sale: <u>Swiss Misc</u>	Road: <u>752 c.y.</u>	
Swell: <u>1.30</u>	Stockpile Base: <u>c.y.</u>	
Shrinkage: <u>1.16</u>	Total Truck Loads: <u>752 c.y.</u>	
Drill Pct.: <u>0%</u>	In Place Total: <u>579 c.y.</u>	

Pit Development	\$1,120.00
Strip rock: <u>\$1.50</u> /cu.yd. x <u>579</u> cu.yds. =	<u>\$868.08</u>
Load Dump Truck: <u>\$0.60</u> /cu.yd. x <u>752</u> cu.yds. =	<u>\$451.40</u>
Subtotal	<u>\$2,439.48</u>

Move in excavator -	\$358.40
Move in trucks	<u>\$364.80</u>
Subtotal	<u>\$723.20</u>

TOTAL PRODUCTION COSTS	\$3,162.68
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Base Cost= \$4.20 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
C to D	<u>\$4.02</u>	<u>\$0.90</u>	<u>\$4.20</u>	<u>\$9.12</u>	<u>50</u>	<u>\$456.15</u>
L to M	<u>\$4.09</u>	<u>\$0.90</u>	<u>\$4.20</u>	<u>\$9.19</u>	<u>702</u>	<u>\$6,457.05</u>
			Total C.Y.		752	Sub Total <u>\$6,913.20</u>

TOTAL ROCKING COSTS	\$6,913.20
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CRUSHED ROCK PIT DEVELOPMENT COST SUMMARY

Pit: <u>Barview</u>	Location: <u>SW,NE, Section 8, T1N, R8W, W.M.</u>
Sale: <u>Swiss Misc</u>	Road: <u>4587 c.y.</u>
Swell: <u>1.30</u>	Stockpile: <u>1413 c.y.</u>
Shrinkage: <u>1.16</u>	Total Truck Loads: <u>6000 c.y.</u>
Drill Pct.: <u>100%</u>	In Place Total: <u>4615 c.y.</u>

Road Brushing:	0.28 acres @	\$905.00 per acre =	\$253.40
Clear and grub - 1 acre @ \$815/acre			\$815.00
Clear overburden, construct 200' road, install culvert and develop crushing area: 14 hrs. at \$130/hr and seed all bare soil.			\$2,000.00
Drill & Shoot:	<u>\$2.10</u> /cu.yd.	x <u>4615</u> cu.yds. =	\$9,692.31
Push Rock:	<u>\$0.60</u> /cu.yd.	x <u>6000</u> cu.yds. =	\$3,600.00
Load crusher:	<u>\$0.60</u> /cu.yd.	x <u>6000</u> cu.yds. =	\$3,600.00
Crushing	<u>\$2.30</u> /cu.yd.	x <u>6000</u> cu.yds. =	\$13,800.00
Load Dump Truck:	<u>\$0.60</u> /cu.yd.	x <u>6000</u> cu.yds. =	\$3,600.00
		Subtotal	<u>\$37,360.71</u>

Move in Crusher	\$1,597.00
Move in and set up drill and compressor	\$107.14
Move in D-8	\$212.02
Move in excavator	\$222.03
Move in loader	\$196.15
Move in grader	\$94.90
Move in roller	\$167.14
Move in trucks	\$159.60
	Subtotal <u>\$2,755.98</u>

TOTAL PRODUCTION COSTS	\$40,116.69
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Base Cost= \$6.69 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
E-F	\$3.39	\$1.30	\$6.69	\$11.38	2784	<u>\$31,666.82</u>
J-K	\$3.23	\$1.30	\$6.69	\$11.22	1804	<u>\$20,234.19</u>
Stockpile	\$3.19	\$0.60	\$6.69	\$10.48	1413	<u>\$14,799.23</u>
					6000	Subtotal <u>\$66,700.24</u>

TOTAL ROCKING COSTS	\$66,700.24
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Oregon Department of Forestry

Cruise Report

Swiss MISC

1. **Type of Sale:** Partial Cut and Clearcut/ Recovery.
2. **Legal Description:** Portions of Sections 13, 14, 23, 24, 25, and 26, Township 1 North, Range 10 West, portions of Section 36, Township 2 North, Range 10 West, and portions of Section 31, Township 2 North, Range 9 West, W.M. Tillamook County, Oregon.
3. **Acreage:** The sale boundaries were plotted on a digital orthophotograph and the acreage was calculated with GIS.

ACRES				
Area	Sale	Total CC	Net (PC)	Net (CC)
1	42	40	0	26
2	25	8	13	5
3	50	0	31	0
4	120	34	57	30
5	43	24	17	19
5 (CSL)*	34	0	26	0
6	17	0	13	0
6 (CSL)*	5	0	5	0
Total	336	106	162	80

*CSL – Common School Land

Sale Acres: Area within the Timber Sale Boundary signs.

Total Acres: For accomplishment reporting

Clearcut harvest: Sale acres; plus green tree retention acres outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Net Acres: Used for calculating the advertised volume.

Sale acres less; roads, stream buffers inside the sale boundary and non required acres (Non-required only in partial cut areas).

Clearcut: Sale acres; less green tree retention, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut: Sale acres; less areas of low stocking, non-required areas, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. **Cruising Procedures:**

- A. **Cruising Method:** Variable radius full point plots spaced 200 feet apart were established along transects in portions of the sale areas required to be harvested. A total of 95 full point plots were taken in which all the conifer trees 8 inches DBH and greater were measured.

V-BAR (volume to basal area ratio) was calculated by measuring and grading the first and second take tree of each species on each plot.

- B. Plot Size:** A basal area factor of 20 was used. Point of observation was at 4.5 feet.
- C. Grading System:** The segment grading system was used for all V-BAR conifer trees following the Columbia River Official Log Scaling and Grading Bureau rules. Douglas-fir was measured and graded to a 6" top favoring 40 foot log lengths. Heights were measured to the nearest foot. All conifer diameters were measured at a height of 4.5 feet to the nearest 1". Conifers less than 30 board feet were not recorded.
5. **Computation Procedures:** Information from plots was entered into a spread sheet to develop a stand table for volume computation, basal area, trees per acre, average diameter of the trees to be removed, stand density estimates, and clear cut/ partial cut acre determination. V-BAR (Volume-Basal Area Ratio) for the take trees was computed using SuperAce 98 from Atterbury Consultant Inc. (Stand Table and Volume Computation Summary attached). A 5% defect and breakage reduction has been applied to the volume.
6. **Timber Description:** The sale contains six areas, which were harvested in the 1960's and 1970's. These areas were planted with Douglas-fir but also include a component of naturally regenerated hemlock, cedar, and spruce. Red alder is present in the draws and along old skid roads. The Douglas-fir is severely infected with Swiss needle cast.
7. **Cruiser Names/Dates:** Chris Woodward, Colleen Holmen, Neil Bond.
March 2002/ August 2000.
8. **Revenue Distribution:**
89% FDF
11% CSL
Tax Code:
76% 56
24% 56-8
Deed Number: 101, 138, 149, 552, 575, 580, 581,
714, 717, 718, 721, and 724
No Rehabilitation Obligation
9. **Attachments:**
Stand Table
Volume Summaries
Logging Plan



Swiss Misc.

Volume Summary

Area 1						
26 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	120	89	10.7	278	5%	264
TOTAL				278		264

Area 2						
18 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	48	84	4.0	72	5%	68
Hemlock	16	124	2.0	36	5%	34
Spruce	62	90	5.6	101	5%	96
TOTAL				209		198

Area 3						
31 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	74	84	6.2	192	5%	182
Hemlock	14	90	1.3	40	5%	38
Alder	0	0	0.0	0	5%	0
TOTAL				232		220

Area 4						
87 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	82	62	5.1	444	5%	422
TOTAL				444		422

Area 5						
36 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	84	106	8.9	320	5%	304
Hemlock	21	116	2.4	86	5%	82
TOTAL				406		386

Area 5 - Common School Land						
26 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	84	106	8.9	231	5%	219
Hemlock	21	116	2.4	62	5%	59
TOTAL				293		278

Area 6						
13 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	86	97	8.3	108	5%	103
TOTAL				108		103

Area 6 - Common School Land						
5 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	86	97	8.3	42	5%	40
TOTAL				42		40

TOTAL SALE VOLUME		
SPECIES	MBF	Net Vol. (MBF)
Douglas-fir	1687	1602
Hemlock	224	213
Spruce	101	96
TOTAL	2012	1911

Swiss MISC

Area 1

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9"	18.1	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10"	29.3	0.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11"	30.3	0.0	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12"	15.3	5.1	15.3	0.0	0.0	5.1	0.0	0.0	0.0	0.0
13"	30.4	4.3	30.4	0.0	0.0	4.3	0.0	0.0	0.0	0.0
14"	15.0	3.7	15.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
15"	3.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17"	2.5	2.5	2.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0
18"	2.3	2.3	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0
19"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28"	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
30"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32"	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
34"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	167	147	18	2	0
Residual	20	0	18	2	0
Take	147	147	0	0	0

Basal Area/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	140	112	20	8	0
Residual	28	0	20	8	0
Take	112	112	0	0	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	12.4	11.8	14.3	27.1	0.0
Residual	16.0	0.0	14.3	27.1	0.0
Take	11.8	11.8	0.0	0.0	0.0

Stand Density Index (%)

	Doug-fir	Hemlock	Sprce/Cdr
Current	39	29	34
Residual	7	5	6

Swiss MISC

Area 2

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8"	16.4	0.0	12.3	0.0	0.0	0.0	4.1	0.0	0.0	0.0
9"	12.9	0.0	3.2	0.0	3.2	0.0	6.5	0.0	0.0	0.0
10"	7.8	0.0	5.2	0.0	0.0	0.0	2.6	0.0	0.0	0.0
11"	13.0	0.0	4.3	0.0	2.2	0.0	6.5	0.0	0.0	0.0
12"	10.9	0.0	1.8	0.0	0.0	0.0	9.1	0.0	0.0	0.0
13"	20.2	1.6	7.8	0.0	4.6	0.0	7.8	1.6	0.0	0.0
14"	21.4	2.7	4.0	0.0	4.0	0.0	13.4	2.7	0.0	0.0
15"	13.9	5.8	5.8	0.0	2.3	2.3	5.8	3.5	0.0	0.0
16"	10.2	3.0	5.1	0.0	1.0	1.0	4.1	2.0	0.0	0.0
17"	5.4	6.3	2.7	0.0	0.0	1.8	2.7	4.5	0.0	0.0
18"	4.8	4.0	0.8	0.0	0.0	0.8	4.0	3.2	0.0	0.0
19"	0.7	6.6	0.7	0.0	0.0	1.5	0.0	5.1	0.0	0.0
20"	0.0	5.9	0.0	0.0	0.0	1.3	0.0	4.6	0.0	0.0
21"	1.2	4.2	1.2	0.0	0.0	0.0	0.0	4.2	0.0	0.0
22"	0.0	4.9	0.0	0.0	0.0	1.1	0.0	3.8	0.0	0.0
24"	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
26"	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
28"	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
30"	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
32"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	188	55	27	106	0
Residual	49	0	10	39	0
Take	139	55	17	67	0

Basal Area/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	221	48	33	140	0
Residual	95	0	17	78	0
Take	126	48	16	62	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	14.7	12.7	15.0	15.6	0.0
Residual	18.9	0.0	17.7	19.2	0.0
Take	12.9	12.7	13.1	13.0	0.0

Stand Density Index (%)

	Doug-fir	Hemlock	Sprce/Cdr
Current	58	44	50
Residual	23	17	19

Swiss MISC
Area 3

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8"	49.2	8.2	24.6	0.0	24.6	8.2	0.0	0.0	0.0	0.0
9"	12.9	6.5	0.0	0.0	12.9	6.5	0.0	0.0	0.0	0.0
10"	10.5	15.7	10.5	0.0	0.0	15.7	0.0	0.0	0.0	0.0
11"	13.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12"	18.2	10.9	18.2	0.0	0.0	10.9	0.0	0.0	0.0	0.0
13"	9.3	6.2	9.3	0.0	0.0	6.2	0.0	0.0	0.0	0.0
14"	10.7	5.3	10.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0
15"	2.3	7.0	2.3	0.0	0.0	7.0	0.0	0.0	0.0	0.0
16"	8.2	10.2	8.2	0.0	0.0	8.2	0.0	0.0	0.0	2.0
17"	0.0	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
18"	1.6	4.9	1.6	0.0	0.0	4.9	0.0	0.0	0.0	0.0
19"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22"	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44"	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	213	98	113	0	2
Residual	78	0	76	0	2
Take	136	98	38	0	0

Basal Area/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	160	74	83	0	3
Residual	72	0	69	0	3
Take	88	74	14	0	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	11.7	11.8	11.6	0.0	16.6
Residual	13.0	0.0	12.9	0.0	16.6
Take	10.9	11.8	8.2	0.0	0.0

Stand Density Index (%)

	Doug-fir	Hemlock	Sprce/Cdr
Current	46	34	39
Residual	20	15	17

Swiss MISC

Area 4

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8'	1.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9'	3.0	1.5	3.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
10'	12.2	6.1	12.2	0.0	0.0	6.1	0.0	0.0	0.0	0.0
11'	12.1	3.0	12.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0
12'	7.6	1.7	7.6	0.0	0.0	1.7	0.0	0.0	0.0	0.0
13'	13.7	6.5	13.7	0.0	0.0	6.5	0.0	0.0	0.0	0.0
14'	16.8	6.2	16.8	0.0	0.0	6.2	0.0	0.0	0.0	0.0
15'	4.3	6.0	4.3	0.0	0.0	4.9	0.0	1.1	0.0	0.0
16'	6.7	5.7	6.7	0.0	0.0	5.7	0.0	0.0	0.0	0.0
17'	4.7	3.8	4.7	0.0	0.0	3.8	0.0	0.0	0.0	0.0
18'	1.5	1.5	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0
19'	1.4	0.7	1.4	0.0	0.0	0.7	0.0	0.0	0.0	0.0
20'	0.6	0.3	0.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0
21'	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	130	87	42	1	0
Residual	43	0	42	1	0
Take	87	87	0	0	0

Basal Area/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	128	82	45	1	0
Residual	46	0	45	1	0
Take	82	82	0	0	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	13.4	13.1	14.0	13.5	0.0
Residual	14.0	0.0	14.0	13.5	0.0
Take	13.1	13.1	0.0	0.0	0.0

Stand Density Index (%)

	Doug-fir	Hemlock	Sprce/Cdr
Current	35	26	30
Residual	12	9	11

Swiss MISC
Area 5

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8'	21.5	5.4	17.9	0.0	3.6	1.8	0.0	0.0	0.0	3.6
9'	12.7	7.0	11.3	0.0	1.4	4.2	0.0	1.4	0.0	1.4
10'	20.6	8.0	12.6	0.0	8.0	6.9	0.0	0.0	0.0	1.1
11'	15.1	6.6	10.4	0.0	4.7	3.8	0.0	1.9	0.0	0.9
12'	15.1	5.6	11.1	0.0	4.0	3.2	0.0	0.8	0.0	1.6
13'	13.5	4.0	10.8	0.0	2.7	2.0	0.0	0.0	0.0	2.0
14'	11.7	7.1	9.4	0.0	2.3	4.1	0.0	1.2	0.0	1.8
15'	9.2	7.1	9.2	0.0	0.0	6.1	0.0	0.0	0.0	1.0
16'	7.2	4.0	5.4	0.0	1.8	3.1	0.0	0.0	0.0	0.9
17'	4.0	4.8	3.2	0.0	0.8	4.0	0.0	0.4	0.0	0.4
18'	2.9	2.9	1.8	0.0	1.1	2.5	0.0	0.0	0.0	0.4
19'	0.9	1.3	0.6	0.0	0.3	1.0	0.0	0.3	0.0	0.0
20'	0.0	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
21'	0.3	0.5	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0
22'	0.4	2.3	0.2	0.0	0.2	2.1	0.0	0.0	0.0	0.2
24'	0.2	0.4	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.0
26'	0.0	1.2	0.0	0.0	0.0	0.8	0.0	0.2	0.0	0.2
28'	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
30'	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
32'	0.1	0.4	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0
34'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	206	104	80	6	16
Residual	71	0	49	6	16
Take	135	104	31	0	0

Basal Area/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	190	84	86	6	14
Residual	81	0	61	6	14
Take	109	84	25	0	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	13.0	12.2	14.0	13.5	12.7
Residual	14.5	0.0	15.1	13.5	12.7
Take	12.2	12.2	12.2	0.0	0.0

Stand Density Index (%)

	Doug-fir	Hemlock	Sprce/Cdr
Current	52	39	45
Residual	21	16	18

Swiss MISC

Area 6

DBH	Total TK tr/acre	Total LV tr/acre	Doug-fir TK tr/acre	Doug-fir LV tr/acre	Hemlock TK tr/acre	Hemlock LV tr/acre	Sprce/Cdr TK tr/acre	Sprce/Cdr LV tr/acre	Red Alder TK tr/acre	Red Alder LV tr/acre
8'	8.2	8.2	8.2	0.0	0.0	0.0	0.0	8.2	0.0	0.0
9'	25.9	19.4	25.9	0.0	0.0	12.9	0.0	6.5	0.0	0.0
10'	26.2	15.7	26.2	0.0	0.0	15.7	0.0	0.0	0.0	0.0
11'	8.7	13.0	8.7	0.0	0.0	13.0	0.0	0.0	0.0	0.0
12'	32.7	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13'	3.1	3.1	3.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0
14'	2.7	2.7	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0
15'	9.3	11.6	9.3	0.0	0.0	11.6	0.0	0.0	0.0	0.0
16'	6.1	2.0	6.1	0.0	0.0	2.0	0.0	0.0	0.0	0.0
17'	0.0	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
18'	0.0	1.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
19'	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
20'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trees/acre

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	204	123	66	15	0
Residual	81	0	66	15	0
Take	123	123	0	0	0

Basal Area/acre

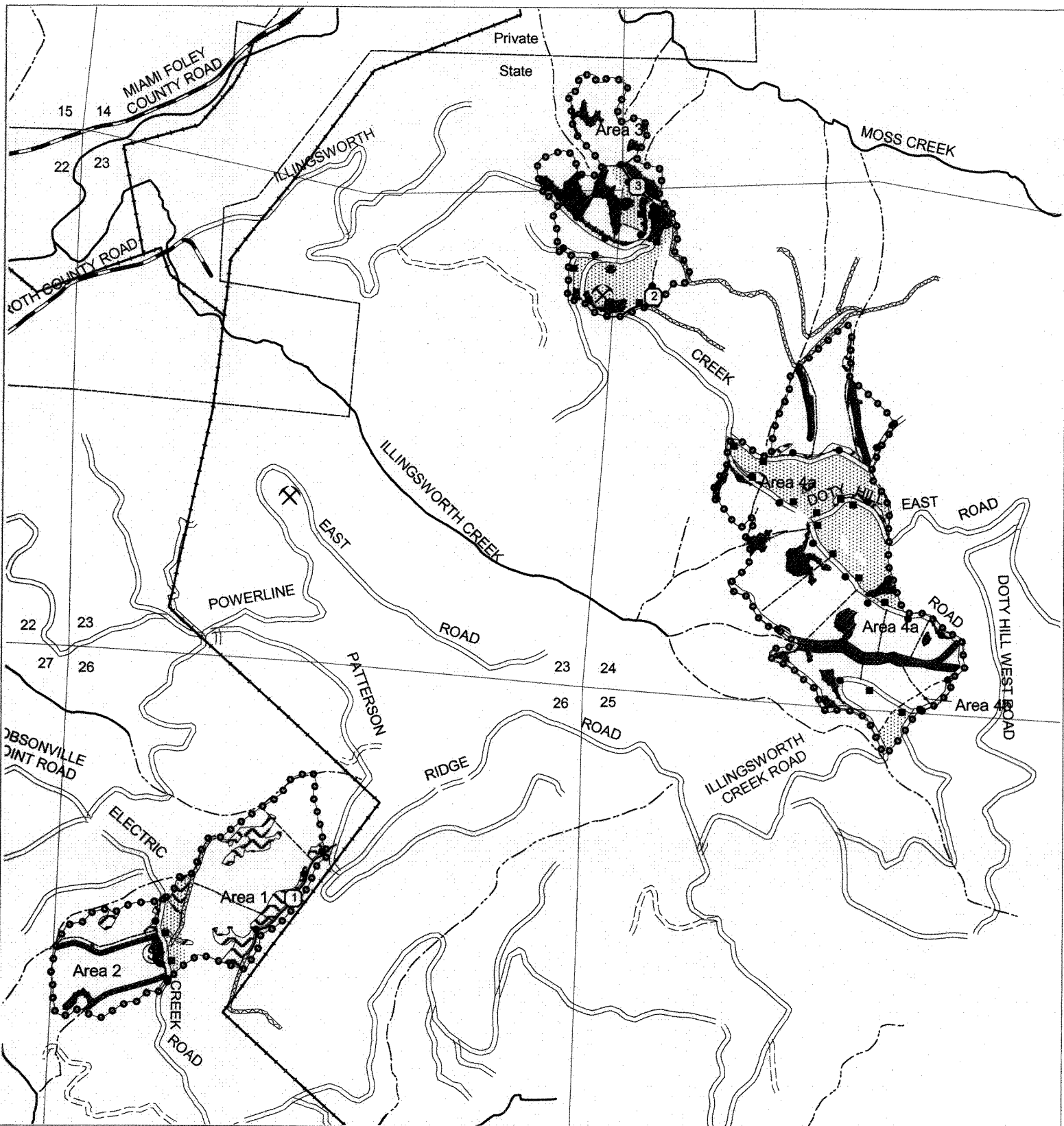
	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	146	86	54	6	0
Residual	60	0	54	6	0
Take	86	86	0	0	0

Quadratic Mean Diameter

	All Spec	Doug-fir	Hemlock	Sprce/Cdr	Red Alder
Current	11.5	11.3	12.2	8.6	0.0
Residual	11.7	0.0	12.2	8.6	0.0
Take	11.3	11.3	0.0	0.0	0.0

Stand Density Index (%)

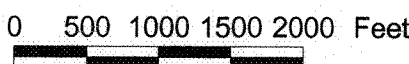
	Doug-fir	Hemlock	Sprce/Cdr
Current	43	32	36
Residual	17	13	15



- Setting boundary
- - - Area boundary
- Sale boundary
- == Unsurfaced road
- === Surfaced road
- State highway
- Abandoned road
- - Road construction
- County road
- Transmission Lines
- Non-project road
- Type-F stream
- Type-N stream
- Stream Buffer
- ⊗ Survey corner
- ⊗ Rock source
- ⊗ Stock pile
- ⊗ Waste area
- Cable landing
- Tractor landing
- Non Required Harvest
- Green Tree Retention
- Ground yarding
- Cable yarding

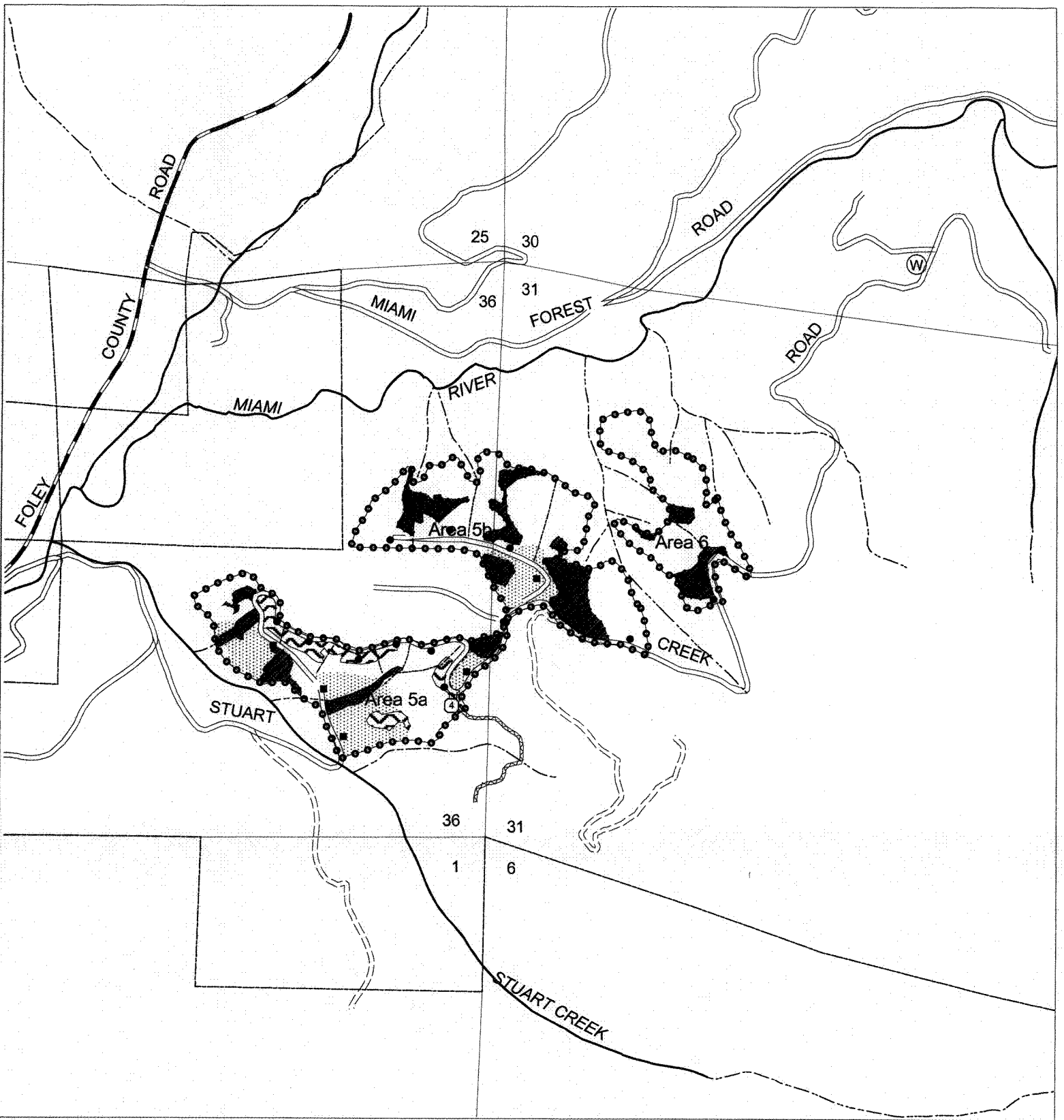
Logging Plan - Area 1, 2, 3, and 4
of Timber Sale Contract No. 341-03-29
Swiss MISC
Portions of sections 13, 14, 23, 24, 25,
and 26, T1N, 10W, portions of
section 36, T2N, R10W, and
portions of section 31, T2N, T9W,
W. M., Tillamook County, Oregon

Area	Sale	Clear Cut Net	Partial Cut Net
1	42	26	0
2	25	5	13
3	50	0	31
4	120	30	57
5	43	19	17
5 (CSL)	34	0	26
6	17	0	13
6 (CSL)	5	0	5
Total	336	80	162



*CSL - Common School Land





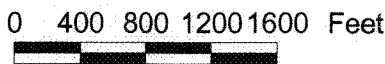
- Setting boundary
- - - Area boundary
- Sale boundary
- == Unsurfaced road
- == Surfaced road
- == State highway
- == Abandoned road
- - Road construction
- == County road
- Transmission Lines
- Non-project road

- Type-F stream
- Type-N stream
- ▨ Stream Buffer
- ⊠ Survey corner
- ⊗ Rock source
- Ⓢ Stock pile
- Ⓜ Waste area
- Cable landing
- Tractor landing
- Non Required Harvest
- ▨ Green Tree Retention
- ▨ Ground yarding
- ▨ Cable yarding

Logging Plan - Area 5 and 6
of Timber Sale Contract No. 341-03-29
Swiss MISC
 Portions of sections 13, 14, 23, 24, 25,
 and 26, T1N, 10W, portions of
 section 36, T2N, R10W, and
 portions of section 31, T2N, T9W,
 W. M., Tillamook County, Oregon

Area	Sale	Clear Cut Net	Partial Cut Net
1	42	26	0
2	25	5	13
3	50	0	31
4	120	30	57
5	43	19	17
5 (CSL)	34	0	26
6	17	0	13
6 (CSL)	5	0	5
Total	336	80	162

*CSL - Common School Land



**OREGON DEPARTMENT OF FORESTRY
WRITTEN PLAN**

SALE NAME: Swiss MISC

PROTECTED RESOURCES: Stuart Creek, large Type F stream

LOCATION: A portion of Section 36, Township 2 North, Range 10 West, W.M. Tillamook County, Oregon.

ACTIVITIES: Logging cables strung across Type F streams for deflection; Right-of-way clearing, culvert replacement, road grading, and rocking within 100 feet of Stuart Creek.

Riparian Management Area (RMA): The area within 100 feet horizontal distance from the high water mark on each side of the protected Type F stream.

PROTECTION MEASURES:

YARDING and FELLING:

- When cable yarding lines are strung across RMA's they will be at least 150 feet apart and pulled out prior to rigging the next yarding road.
- Soil gouging will be incidental and limited to a depth of 1 foot (measured vertically).
- Intermediate supports will be used to provide lift.
- Logs will have at least one end suspended when yarded.

Project Work

- Work will be performed during dry weather periods.
- Disturbance of existing Vegetation will be kept to a minimum.
- All disturbed areas will be grass seeded, fertilized, and mulched to minimize erosion.

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Date: June 21, 2002