



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Western Sullivan Sale 341-06-18

District: Coos

Date: 1/19/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,005,487.82	\$17,022.84	\$1,022,510.66
		Project Work	(\$74,788.00)
		Advertised Value	\$947,722.66



Timber Sale Appraisal

Timber Description

Western Sullivan

Sale 341-06-18

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: Portions of Section 22, T24S, R12W, W.M., Coos County, Oregon.

Date: 1/19/06

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	31	0	95
Western Hemlock / Fir	17	0	95
Sitka Spruce	20	0	95
Red Cedar	27	0	95
Alder (Red)	15	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Red Cedar	Alder (Red)	Total
3P	35	0	0	0	0	35
SM	88	0	0	0	0	88
2S	1,439	0	0	4	11	1,454
3S	80	5	6	31	10	132
3S 12"+	534	10	0	0	0	544
4S	24	0	0	0	22	46
Total	2,200	15	6	35	43	2,299

Comments: Pond Values Used: 4th Quarter Calendar Year 2005.

Hauling Costs Used: System currently uses hauling costs of \$460 daily truck cost. Additional hauling costs added in Other Costs (No P&R) to make equivalent to \$700 daily truck cost.

TOTAL Other Costs (Profit & Risk added): \$7,352

Felling -

Directional Felling = $\$2/\text{MBF} \times 900\text{MBF} = \$1,800$

Yarding and Loading -

Brand and Paint Logs = $\$1/\text{MBF} \times 2,477\text{MBF} = \$2,477$

Loader Time for Firewood Stacking = $\$75/\text{Hour} \times 9 \text{ hours} = \675

Snag Creation -

Tree Topping = $\$100/\text{Tree} \times 19 \text{ Trees} = \$1,900$

Miscellaneous Costs -

Additional Fire Equipment = $\$1,000/\text{Season} \times 0.5 \text{ Seasons} = \500

TOTAL Other Costs (No Profit & Risk added): \$33,000

Additional Hauling Costs = $\$15/\text{MBF} \times 2,200\text{MBF} = \$33,000$



Timber Sale Appraisal Logging Conditions Western Sullivan Sale 341-06-18

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	100.00%
	Western Hemlock / Fir	100.00%
	Sitka Spruce	100.00%
	Red Cedar	100.00%
	Alder (Red)	100.00%
Yarding Distance:	Long (1,500 ft)	Downhill Yarding: No
Logging System:	Cable: Large Tower >=70	Process: Manual Delimiting
Tree Size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
Loads/Day:	12	Bd. Ft./Load: 4,800
Cost/MBF:	\$61.63	
Machines:		
	Log Loader (A)	
	Tower Yarder (Large)	



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Western Sullivan Sale 341-06-18

Date: 1/19/06

Operating Seasons: 0.5

Profit & Risk: 10%

Project Costs: \$74,788

Other Costs (P/R): \$7,352

Slash Disposal: \$0

Other Costs: \$33,000

Road Maintenance: \$0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
2.6	0.0	0.3	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.5
Western Hemlock / Fir	\$0.00	3.0	4.5
Sitka Spruce	\$0.00	2.0	4.5
Red Cedar	\$0.00	3.0	4.5
Alder (Red)	\$0.00	3.0	4.5



Timber Sale Appraisal Logging Costs Breakdown Western Sullivan Sale 341-06-18

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Red Cedar	Alder (Red)
Logging	61.63	61.63	61.63	61.63	61.63
Road Maintenance	0.95	0.95	0.95	0.95	1.01
Fire Protection	0.59	0.59	0.59	0.59	0.59
Hauling	35.89	35.89	53.79	35.89	37.89
Other (P/R appl.)	3.20	3.20	3.20	3.20	3.20
Profit & Risk	10.23	10.23	12.02	10.23	10.43
Slash Disposal	0.00	0.00	0.00	0.00	0.00
Scaling	2.00	2.00	2.00	2.00	2.00
Other	14.35	14.35	14.35	14.35	14.35
Total	128.84	128.84	148.53	128.84	131.10

Amortization	0.00	0.00	0.00	0.00	0.00
Pond Value	573.52	285.00	375.00	800.00	526.98
Stumpage	444.68	156.16	226.47	671.16	395.88
Amortized	0.00	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Western Sullivan Sale 341-06-18

Amortized

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

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Red Cedar	Alder (Red)
MBF	2,200.00	15.00	6.00	35.00	43.00
Value	444.68	156.16	226.47	671.16	395.88
Total	978,296.00	2,342.40	1,358.82	23,490.60	17,022.84

Gross Timber Sale Value

Recovery \$1,022,510.66

Prepared by: Gloria Clary

Date: 1/19/06

District: Coos

Phone: (541) 267-1757

Western Sullivan

SUMMARY OF CONSTRUCTION COST

Project 1A: Road Improvement

Points: A to B
 Length: 1795 ft.
 Type: 14" subgrade with ditch

Grade and shape road surface and pull ditch

Grader	4	hrs. at	\$75.00	per hour	\$300.00
Excavator	2	hrs. at	\$120.00	per hour	\$240.00
Dump Truck	2	hrs. at	\$75.00	per hour	\$150.00

Total Grade and Ditch: \$690.00

Road Surfacing

Point A
 Beginning of 3100 road 40 cu yds at \$17.77 per yd \$710.80
 (1 1/2" - 0" rock, 1.25 hr RT, Bobtail)

Total Surfacing: \$710.80

Move-in

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	30	3.5	\$95.00	\$332.50
Cat	30	3.5	\$95.00	\$332.50
Grader	30	3.5	\$95.00	\$332.50
Dump Truck	30	3.5	\$95.00	\$332.50
Dump Truck	30	3.5	\$95.00	\$332.50
Drill & Comp.	30	3.5	\$95.00	\$332.50

Total Move-in: \$1,995.00

Total Project 1A: \$3,396.00

Project 1B: Road Improvement

Points: B to C
 Length: 1970 ft.
 Type: 14" subgrade

Clearing and Grubbing

1.13 acres at \$640.00 \$ per acre = \$723.20

Total clearing and grubbing: \$723.20

Excavation

Cat (Rd. imp. & waste area prep.)	20	hrs. at	\$120.00	per hour	\$2,400.00
Excavator (Rd. imp. & waste area prep)	20	hrs. at	\$120.00	per hour	\$2,400.00
Dump Truck - Haul to Point H	3	hrs. at	\$75.00	per hour	\$225.00
Laborer	20	hrs. at	\$30.00	per hour	\$600.00

Total Excavation: \$5,625.00

Western Sullivan

SUMMARY OF CONSTRUCTION COST

Grade Road Surface

Grader	1.5	hrs at	\$75.00	per hour	\$112.50
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Total Grading: \$112.50

Total Project 1B: \$6,461.00

Total Project 1: \$9,857.00

Project 2A: Road Construction

Points: C to D
 Length: 2332 ft.
 Type: 14" subgrade

Clearing and Grubbing

Sta. 0+00 - 17+00	1	acres at	\$1,250.00	\$ per acre =	\$1,250.00
(includes hauling stumps between sta. 0+00 -17+42 to waste area Point "H")					
Sta. 17+00 - 23+32	0.6	acres at	\$800.00	\$ per acre =	\$480.00
(scatter brush and limbs, place stumps on stable ground)					
Total clearing and grubbing:					\$1,730.00

Excavation

Excavator (Sta 0+00 - 5+80)	2198	cu yds at	\$1.10	per cu yd	\$2,417.80
Cat time (Sta 5+80 - 7+00)	5	hrs. at	\$120.00	per hour	\$600.00
Excavator (Sta 7+00 - 12+00)	633	cu yds at	\$0.76	per cu yd	\$481.08
" " (to endhaul)	1155	cu yds at	\$1.66	per cu yd	\$1,917.30
Cat time (Sta 12+00 - 16+00)	5	hrs. at	\$120.00	per hour	\$600.00
Excavator (Sta 16+00 - 23+32)	2802	cu yds at	\$1.03	per cu yd	\$2,886.06
Cat time (Sta 16+00 - 23+32)	25	hrs. at	\$120.00	per hour	\$3,000.00
Cat time (shape waste area)	20	hrs. at	\$120.00	per hour	\$2,400.00
Drill and Shoot	529	cu yds at	\$3.00	per cu yd	\$1,587.00
Laborer	50	hrs. at	\$30.00	per hour	\$1,500.00
Total Excavation:					\$17,389.24

Hauling Waste Material to Saddles for fill or to Point H

Dump Truck	60	hrs. at	\$75.00	per hour	\$4,500.00
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Total Hauling: \$4,500.00

Grade Road Surface

Grader	1.75	hrs at	\$75.00	per hour	\$131.25
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Total Grading: \$131.25

Total Project 2A: \$23,751.00

Western Sullivan

SUMMARY OF CONSTRUCTION COST

Project 2B: Road Construction

Points: E to F
 Length: 1555 ft.
 Type: 14" subgrade

Clearing and Grubbing

1.2 acres at \$900.00 \$ per acre = \$1,080.00

Total clearing and grubbing: \$1,080.00

Excavation

Cat time (Sta 0+00 - 3+30)	<u>3</u>	hrs. at	<u>\$120.00</u>	per hour	<u>\$360.00</u>
Excavator (Sta 3+30 - 4+40)	<u>500</u>	cu yds at	<u>\$1.25</u>	per cu yd	<u>\$625.00</u>
Cat time (Sta 4+40 - 15+55)	<u>27</u>	hrs. at	<u>\$120.00</u>	per hour	<u>\$3,240.00</u>
Drill and Shoot	<u>503</u>	cu yds at	<u>\$3.00</u>	per cu yd	<u>\$1,509.00</u>
Laborer	<u>30</u>	hrs. at	<u>\$30.00</u>	per hour	<u>\$900.00</u>
Cat time (Shape waste material)	<u>5</u>	hrs. at	<u>\$120.00</u>	per hour	<u>\$600.00</u>

Total Excavation: \$7,234.00

Hauling Waste Material to Saddles

Dump Truck (600 ft one way)	<u>8</u>	hrs. at	<u>\$75.00</u>	per hour	<u>\$600.00</u>
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Total Hauling: \$600.00

Grade Road Surface

Grader	<u>1.75</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$131.25</u>
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Total Grading: \$131.25

Total Project 2B: \$9,046.00

Total Project 2: \$32,797.00

Project 3: Landing Construction

Point: G

Excavation

Excavator	<u>2182</u>	cu yds at	<u>\$1.63</u>	per cu yd	<u>\$3,556.66</u>
Drill and Shoot	<u>713</u>	cu yds at	<u>\$3.25</u>	per cu yd	<u>\$2,317.25</u>
Cat time (develop waste area)	<u>4</u>	hrs. at	<u>\$120.00</u>	per hour	<u>\$480.00</u>

Total Excavation: \$6,353.91

Hauling Waste Material to Point I

Dump Truck (3.2 RT)	<u>1091</u>	cu yds at	<u>\$1.73</u>	per cu yd	<u>\$1,887.43</u>
Dump Truck (3.2 RT)	<u>1091</u>	cu yds at	<u>\$1.73</u>	per cu yd	<u>\$1,887.43</u>

Total Hauling: \$3,774.86

SUMMARY OF CONSTRUCTION COST

Total Project 3: \$10,129.00

Project 4: Post Sale Clean-up

3000 road through sale area:

Shovel	4	hrs. at	\$120.00	per hour	\$480.00
Dump Truck	4	hrs. at	\$75.00	per hour	\$300.00

Total Project 4: \$780.00

Project 5: Post Sale Maintenance Rock

Maintenance rock (1 1/2" - 0" rock, 1.25 hr RT)	180	cu yds at	\$14.85	per yd	\$2,673.00
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Total Project 5: \$2,673.00

Project 6: Sullivan I Rock Stockpile

Location: 3.2 mi on 3000 Road
 Measured amount: 1200 cu yds
 Size: 3/4" - 0"

Cost per cu yd at crusher:	\$10.64	per yd
Haul cost per cu yd (1.0 hr. RT):	\$4.17	per yd
Piling and shaping cost per cu yd:	\$0.65	per yd

Total cost per cu yd:	\$15.46	per yd
Total cu yds:	1200	yards

Total Cost for Stockpile rock: \$18,552.00

Total Project 6: \$18,552.00

TOTAL PROJECT COSTS: \$74,788.00

TIMBER SALE SUMMARY

Western Sullivan

1. **Type of sale:** Final harvest; Recovery, Sealed Bid.
2. **Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% BOF; 100% Coos County.
4. **Sale Acreage:** The total sale area is 39 net acres. Grouped green trees and buffer areas are posted outside the sale area and are not included in the net acreage calculation. The acreage was determined using orthophoto imagery on the ARCVIEW Geographic Information System program.
5. **Volume by Species, Fund, and County:** See attached table.
6. **Grade by Percent:**

Species	3 Peeler	Special Mill	2 Saw	3 Saw	3 Saw Large Diameter	4 Saw/Camp
Douglas-fir	2 %	4 %	66 %	3 %	24 %	1 %
Red Alder	-----	-----	25 %	24 %	-----	51 %
Western Red Cedar	-----	-----	13 %	87 %	-----	-----
Western Hemlock	-----	-----	-----	36 %	64 %	-----
Sitka Spruce	-----	-----	-----	100 %	-----	-----

7. **Cruise:** The unit was variable plot cruised using the Big BAF cruise design, which consisted of 89 nested plots. Each plot consists of both a full 40 BAF count plot and a full 360 BAF measure plot. The 40 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 40 BAF plot was then used to select hardwoods and minor species to cruise and the 360 BAF plot to select conifer trees to cruise. Selected trees were cruised for diameter at breast height, height, grade and defect. Sixty-four conifer Big BAF trees were cruised for diameter, height, grade and defect. The cruise was analyzed using the SuperACE cruising program.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE %
D4H	Total Height	Conifer: 16' Hardwood: 16'	Estimated or measured on all trees	37.1	6.75

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft ² /ac)	BF per acre
Douglas-fir	31	42	220	56,410
Red Alder	15	9	12	1,102
Western Cedar	27	1	6	897
Sitka Spruce	20	2	4	154
Western Hemlock	17	3	5	384

C. Green Tree Retention Summary: Most green trees were posted outside of the timber sale, except scattered trees which will be removed from the cruise. These scattered trees are marked with a "W" in red.

8. **Timber Description:** The timber sale is a moderately stocked stand of approximately 122 year old second growth Douglas-fir, of good to average quality, with red alder, western red cedar, sitka spruce and western hemlock in the understory. Conifers range from 70 to 215 feet tall while hardwoods are about 20 to 60 feet.

9. **Topography:** The unit ranges from 10% to 70% slope. There are a few benches as well as steep drainages.

10. **Logging Method:** The sale will be cable logged mostly uphill with single-end suspension over the unit; full suspension will be required over designated streams and RMAs. A motorized carriage will be required to obtain the necessary suspension. Tailtrees may need to be placed for yarding the sale area as approved in the operations plan.

11. **Access:** From Coos Bay, proceed north on highway 101 to North Bay Road, proceed for 3 miles and then enter the forest from the west on Larson Way, take the 3000 Rd. to approximately the 1 ½ mile post.

12. **Projects:**

Project No. 1: Road Improvement

Project No. 2: Road and Landing Construction

Project No. 3: Landing Construction

Project No. 4: Road Maintenance

Project No. 5: Road Rocking

Project No. 6: Rock Stockpile

NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							
			By County and Fund						Total Vols.	Vol. per Acre
			Coos			Douglas				
Area	Spec	CSL	BOF	Total	CSL	BOF	Total			
I-III	D-fir			2200	2200			0	2200	56.41
	Hdwd			43	43			0	43	1.10
	Cedar			35	35			0	35	0.90
	Spruce			6	6			0	6	0.154
	Hemlock			15	15			0	15	0.385
TOTALS				0	2299	2299	0	0	0	2299

TOTAL SALE VOLUME BY SPECIES

Douglas-fir	2200	MBF
Hemlock	15	MBF
Cedar	35	MBF
Spruce	6	
Hardwoods	43	MBF
Total	2299	MBF

Report by: Western Sullivan

Date: 4/19/2005

Unit For. None Shine April 20, 05
Date

Asst. Dist. For. Greg Kreininger 6.1.2005
Date

**UTILITY VOLUME NOT SHOWN TO PROVIDE FOR RETENTION OF DOWN LOGS
NO INGROWTH INCLUDED**

ACREAGE BY COUNTY (to nearest acre)

Sale Area	Coos County						Douglas County						TOTAL ACRES	
	CSL			BOF			CSL			BOF				
	Conifer cc	Conifer pc	Hard wood	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods		
I				36										36
II				2										2
III				1										1
SUM	0	0	0	39	0	0	0	0	0	0	0	0	0	39

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land

CRUISE VOLUME COMPUTATION REPORT

SALE NAME: Western Sullivan
 LEGAL LOCATION: T24S, R12W Sec. 22

DATE: 4/19/2005
 BY: Gloria Clary

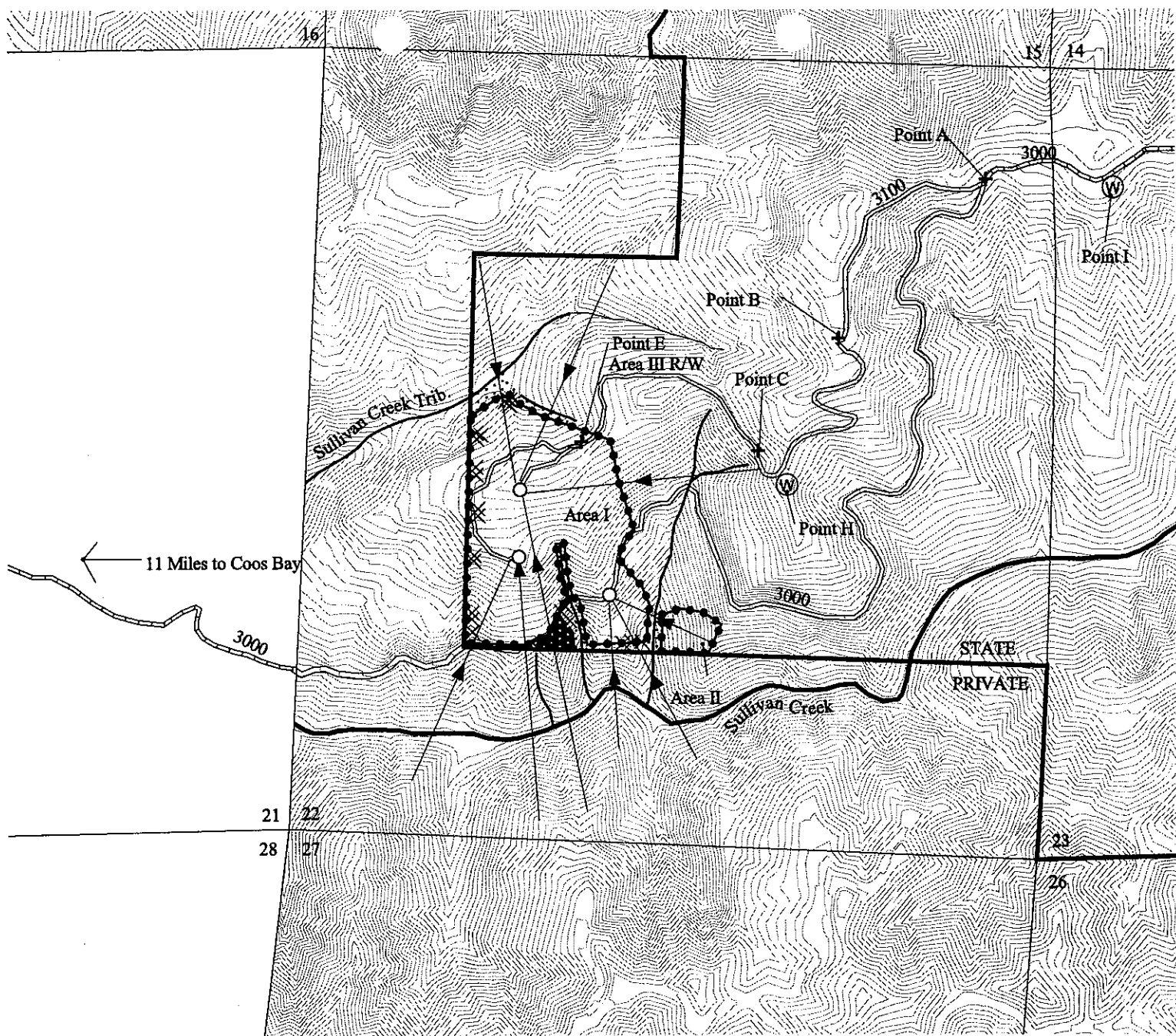
SPECIES>>>	GROSS VOLUME MBF *					TOTAL
	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds	
AREA						BY AREA
I-II	2522	21	41	22	38	2,644
III R/W	27	0	0	0.4	12	39
Less GTR Vol.	20	4	0	16	0	40
TOTAL	2529	17	41	6	50	2640

Species	DEFECT AND BREAKAGE *				
	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds
Field cull	0.02	0.02	0.02	0.02	0.03
Hidden cull	0.04	0.04	0.04	0.04	0.04
Breakage	0.07	0.07	0.07	0.07	0.07
Total	0.13	0.13	0.13	0.13	0.14

SPECIES	NET VOLUME BY MBF BY AREA *					TOTALS
	Doug-fir	Hemlock	Red Cedar	Sitka Spruce	Hardwds	
AREA						BY AREA
I-III	2200	15	35	6	43	2299
TOTALS	2200	15	35	6	43	2299

Grade	NET VOLUME BY GRADE AND MBF *					
	2 PEE	3 PEE	SM	2 SAW	3 SAW	4 SAW/CR
AREA I						
Doug-Fir	0	35	88	1439	614	24
Hardwds	0	0	0	11	10	22
Red Cedar	0	0	0	4	31	0
Hemlock	0	0	0	0	15	0
Sitka Spruce	0	0	0	0	6	0

Grade	GRADE DISTRIBUTION BY PERCENT					
	2 PEE	3 PEE	SM	2 SAW	3 SAW	4 SAW
Doug-fir	0%	2%	4%	65%	28%	1%
Hardwood	0%	0%	0%	25%	24%	51%
Red Cedar	0%	0%	0%	12%	88%	0%
Hemlock	0%	0%	0%	0%	100%	0%
Sitka Spruce	0%	0%	0%	0%	100%	0%



LEGEND

- Landing
- Ⓜ Waste Area
- + Project Point
- ▬ Posted Sale Boundary
- ▬ Elliott State Forest Boundary
- Roads**
- ▬ State Maintained Road
- ▬ Purchaser Maintained Road
- ▬ Cable Corridor
- Streams**
- ▬ Type F Perennial
- ▬ Type N Perennial
- ▬ Type N Seasonal
- ⋯ Stream Buffer
- Green Tree Retention Group
- × Green Tree Retention
- ▬ Contours: 20 Foot

LOGGING PLAN

WESTERN SULLIVAN
 341-06-18
 PORTIONS OF SECTION 22
 T24S, R12W, W.M.
 COOS COUNTY, OREGON
 APPROXIMATELY 39 NET HARVEST ACRES



APPROX. SCALE: 1"=1000'

