



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Piledup Marlow No. 2
Sale 341-08-78

District: Coos

Date: January 23, 2008

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$508,844.18	\$114,339.65	\$623,183.83
		Project Work:	\$(70,825.00)
		Advertised Value:	\$552,358.83



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timber description

Location: Portions of Sections 15, 16, 21, & 22, T24S, R11W, W.M., Coos County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	95
Western Hemlock / Fir	15	0	95
Alder (Red)	14	0	90
Maple	14	0	90

Volume by Grade	2S	2S 12'+	3S	3S 10" - "	4S	4S 8" - 9'	6" - 7"	SM	Total
Douglas - Fir	1,557	0	651	0	70	0	0	46	2,324
Western Hemlock / Fir	0	0	9	0	0	0	0	0	9
Alder (Red)	0	124	0	53	0	23	47	0	247
Maple	0	0	0	0	0	2	4	0	6
Total	1,557	124	660	53	70	25	51	46	2,586



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comments: Pond Values Used: 4th Quarter Calendar Year 2007.

90 acres of regeneration harvest comprising 80 acres of 60-79 year-old predominately Douglas-fir sawtimber and 10 acres of 40 year-old predominately Douglas-fir sawtimber.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$775.70/\text{MBF} = \$1,000/\text{MBF} - \$224.30/\text{MBF}$

HAULING

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (Profit and Risk to be added):

Felling:

Small Tree Volume Cost Addition: $\$10/\text{MBF} \times 94 \text{ MBF} = \940

Directional Felling/Tree Jacking: $\$2/\text{MBF} \times 100 \text{ MBF} = \200

Yarding & Loading:

Brand & Paint Logs: $\$1/\text{MBF} \times 2,586 \text{ MBF} = \$2,586$

Cull Sorting/Slash Piling on Landings: $\$125/\text{landing} \times 2 \text{ landings} = \250

Rig Lift Trees: $\$100/\text{tree} \times 7 \text{ trees} = \700

Artificial Guy Anchors (dozer, skidder): $\$500 \text{ each} \times 3 \text{ anchors} = \$1,500$

Miscellaneous Costs - Snag Creation:

Tree Topping: $\$100/\text{tree} \times 45 \text{ trees} = \$4,500$

Miscellaneous Costs:

Fish Log Stockpile - Yarding & Decking: $\$80/\text{MBF} \times 21 \text{ MBF} = \$1,680$

Fish Log Stockpile - Felling & Bucking: $\$10/\text{MBF} \times 21 \text{ MBF} = \210

TOTAL Other Costs (Profit and Risk to be added) = \$12,566



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logging conditions

combination#: 1	Douglas - Fir	88.00%	
	Western Hemlock / Fir	88.00%	
	Alder (Red)	88.00%	
	Maple	88.00%	
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:	8.0	bd. ft / load:	4,700
cost / mbf:	\$98.23		
machines:	Log Loader (A) Tower Yarder (Large)		
combination#: 2	Douglas - Fir	12.00%	
	Western Hemlock / Fir	12.00%	
	Alder (Red)	12.00%	
	Maple	12.00%	
yarding distance:	Short (400 ft)		downhill yarding: No
logging system:	Cable: Large Tower >=70		Process: Manual Delimiting
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:	\$175.88		
machines:	Log Loader (A) Tower Yarder (Large)		



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logging costs

Operating Seasons:	1.00	Profit Risk:	20.00%
Project Costs:	\$70,825.00	Other Costs (P/R):	\$12,566.00
Slash Disposal:	\$0.00	Other Costs:	\$0.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	5.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.7
Western Hemlock / Fir	\$0.00	2.0	4.7
Alder (Red)	\$0.00	3.0	3.5
Maple	\$0.00	3.0	3.5

Local Pond Values

Date	Specie	Grade	Value
1/23/08	Maple	4S 8" - 9"	\$490.00
1/23/08	Maple	6" - 7"	\$490.00



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$107.55	\$5.98	\$1.70	\$65.16	\$4.86	\$37.05	\$0.00	\$2.00	\$0.00	\$224.30
Western Hemlock / Fir									
\$107.55	\$5.98	\$1.70	\$65.16	\$4.86	\$37.05	\$0.00	\$2.00	\$0.00	\$224.30
Alder (Red)									
\$107.55	\$6.27	\$1.70	\$61.12	\$4.86	\$36.30	\$0.00	\$2.00	\$0.00	\$219.80
Maple									
\$107.55	\$6.27	\$1.70	\$61.12	\$4.86	\$36.30	\$0.00	\$2.00	\$0.00	\$219.80

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$442.92	\$218.62	\$0.00
Western Hemlock / Fir	\$0.00	\$310.00	\$85.70	\$0.00
Alder (Red)	\$0.00	\$676.15	\$456.35	\$0.00
Maple	\$0.00	\$490.00	\$270.20	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,324	\$218.62	\$508,072.88
Western Hemlock / Fir	9	\$85.70	\$771.30
Alder (Red)	247	\$456.35	\$112,718.45
Maple	6	\$270.20	\$1,621.20

Gross Timber Sale Value

Recovery: \$623,183.83

Prepared by: Jon Haynes

Phone: 541-267-1758

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Piledup Marlow No. 2

Additional "Other Cost" with additional profit and risk to be added:

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Felling				
Locate Corridors and Skid Roads	MBF		\$ 5.00	\$ -
Select Trees and Fall to Lead	MBF		\$ 5.00	\$ -
Small Tree Volume Cost addition	MBF	94	\$ 10.00	\$ 940.00
Directional Felling/Tree Jacking	MBF	100	\$ 2.00	\$ 200.00
Felling of unmerch material	acre	0	\$ 80.00	\$ -
Yarding and Loading				
Clear chute at cable settings	MBF		\$ 3.00	\$ -
Brand and paint logs	MBF	2586	\$ 1.00	\$ 2,586.00
Cull sorting/slash piling on landings	landing	2	\$ 125.00	\$ 250.00
Rig lift trees	lift tree	7	\$ 100.00	\$ 700.00
Artificial guy anchors(dozer, skidder)	anchor	3	\$ 500.00	\$ 1,500.00
Log placement into streams (Exhibit I)	crossing	0	\$ 720.00	\$ -
Skid Road Layout	MBF		\$ 5.00	\$ -
Non required Road Construction	Stations			\$ -
Miscellaneous Costs				
Additional fire equipment (winter show)	Seasons	0	\$ 2,000.00	\$ -
Maintenance rock (Section 2130)	yards	0	\$ 25.00	\$ -
Safety Flaggers and signing	per day	0	\$ 150.00	\$ -
Tree topping	per tree	45	\$ 100.00	\$ 4,500.00
Fish Log Stockpile: Yarding & Decking	MBF	21	\$ 80.00	\$ 1,680.00
Fish Log Stockpile: Felling & Bucking	MBF	21	\$ 10.00	\$ 210.00
Total additional "Other Cost" with additional profit and risk to be added				\$ 12,566.00

Additional "Other Cost" with no additional profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Non-required road construction	Stations			\$ -
Non-required road rocking	Cubic Yards			\$ -
Stream clearance	Feet			\$ -
Scaling (high piece count)	MBF		\$ 2.00	\$ -
Total additional "Other Cost" with no additional profit and Risk				\$ -

**SUMMARY OF CONSTRUCTION COST
Piledup Marlow No. 2**

Project 1A: Road and Landing Re-Construction

Points: B to C Length: 1310' Type: 14' no ditch

Excavator	60	hrs at	\$120.00	per hour	\$7,200.00
Cat time (waste area included)	40	hrs at	\$120.00	per hour	\$4,800.00
Drill and Shoot	25	hrs at	\$250.00	per hour	\$6,250.00
Dump Truck (0.9 mi RT to Point F) (2760 yds)	60	hrs at	\$95.00	per hour	\$5,700.00
Grader	2	hrs at	\$75.00	per hour	\$150.00
Laborer	60	hrs at	\$30.00	per hour	\$1,800.00

Total Project 1A: \$25,900.00

Project 1B: Road and Landing Construction

Points: D to E Length: 800' Type: 14' no ditch

Excavator	90	hrs at	\$120.00	per hour	\$10,800.00
Cat time (waste area included)	50	hrs at	\$120.00	per hour	\$6,000.00
Drill and Shoot	30	hrs at	\$250.00	per hour	\$7,500.00
Dump Truck (0.9 mi RT to Point F) (5460 yds)	90	hrs at	\$95.00	per hour	\$8,550.00
Grader	2	hrs at	\$75.00	per hour	\$150.00
Laborer	90	hrs at	\$30.00	per hour	\$2,700.00

Total Project 1B: \$35,700.00

Move-in

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Time for Walking (hr)	Rate/hr	Total
Excavator	25	3	\$95.00	2	\$120.00	\$525.00
D8 Cat	25	3	\$95.00	2	\$120.00	\$525.00
Grader	25	3	\$95.00	1	\$75.00	\$360.00
Drill & Comp	25	4	\$95.00			\$380.00
Dump Truck	25	3	\$95.00	1	\$95.00	\$380.00
Dump Truck	25	3	\$95.00	1	\$95.00	\$380.00

Total Move-in: \$2,550.00

Project 1 Total \$64,150.00

Project 2: Road Improvement

Points: A to B Length: 1490' Type: 14' no ditch

Excavator	10	hrs at	\$120.00	per hour	\$1,200.00
Cat time	10	hrs at	\$120.00	per hour	\$1,200.00
Drill and Shoot	10	hrs at	\$250.00	per hour	\$2,500.00
Dump Truck	10	hrs at	\$95.00	per hour	\$950.00
Grader time	2	hrs at	\$75.00	per hour	\$150.00
Laborer	10	hrs at	\$30.00	per hour	\$300.00

Project 2 Total \$6,300.00

SUMMARY OF CONSTRUCTION COST
Piledup Marlow No. 2

Project 3: Road Maintenance

Points: G to A

Length: 24325'

Type: 14' w/ditch

Grader time

5

hrs at

\$75.00

per hour

\$375.00

Project 3 Total

\$375.00

Total Project Costs

\$70,825.00

TIMBER SALE SUMMARY

Piledup Marlow No. 2

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 flagging, and red paint at locations shown on the Exhibit "A".

3. Revenue Distribution: 87% BOF, 13% CSL; 100% Coos County

4. Sale Acreage: The sale is approximately 90 acres. Sale acreage was determined from electronic digitizing using the ArcView GIS program and deductions were made for existing interior roads and for interior rocky and burned areas.

	Posted Acres	Interior Road Acres	Rock/Burned Acres	Net Cruise Acres	Net Harvest Acres
Mature Types	80.1	0.0	3.2	76.9	80
Young Type	11.4	1.2	.2	10.0	10
Sale Area	91.5	1.2	3.4	86.9	90

5. Volume by Species, Fund and County. See Attached table.

6. Grade: (by Percent,)

Species	Special Mill %	2 Saw (12"+) %	3 Saw %	4 Saw %	10"-11" % Hardwood	8"- 9" % Hardwood	6"-7" % Hardwood
Douglas-fir	2 %	67 %	28 %	3%			
Hemlock			100 %				
Hardwoods		49 %			21 %	10 %	20 %

7. Cruise: The sale area was variable plot cruised using a nested Big BAF plot method and stratified into mature and young types. The Big BAF method is a combination of count plots and individually measured trees. The plots were spaced 2 chains apart on cruise lines spaced 5 chains apart across the entire sale area. For the mature type a 250 BAF full plot at 16 feet was taken to determine which Douglas-fir trees would be fully measured. A total of 64 Douglas-fir trees were fully measured for DBH, height, grade and defect. A 40 BAF full plot at 16 feet was used to determine tree counts for all species. Minor species were measured on every third plot. A total of 77 count plots were installed. For the young type a 90 BAF full plot at D4H was taken to determine which Douglas-fir trees would be fully measured. A total of 9 Douglas-fir trees were fully measured for DBH, height, grade and defect. A 20 BAF full plot at D4H feet was used to determine tree counts for all species. Minor species were measured on every other plot. A total of 13 count plots were installed. Cruise data was gathered using Superace cruising technique. Cruising was done in October 2007 by ODF foresters.

A. Summary data (Sale Area):

Diam	Ht. Stand	Form Pt.	Form Factor	CV %	SE %
D4H	6" DIB, mature type 5" DIB, young type	Mature, all species: 16' Young, all species: D4H	Recorded for all cruised trees by estimate and measure	66 %	7.8 %

B. Defect and Breakage Summary (Sale Area):

BY PERCENT

SPECIES	CRUISED DEFECT	HIDDEN DEFECT	BREAKAGE	TOTAL %
DOUGLAS FIR	1	7	6	14
HEMLOCK	0	7	7	14
HARDWOODS	0	8	7	15

C. Stand Data (Sale Area):

SPECIES	DBH	TREES/ACRE	BASAL AREA/AC	NET MBF/ACRE
DOUGLAS FIR	21	62	152	25.8
HEMLOCK	15	1	2	0.1
HARDWOODS	14	31	30	2.8

D. Green Tree Retention: There are eleven (11) green tree reserve areas associated with this sale that are reserved from cutting. These areas consist of perennial stream buffer extensions and intermittent stream buffers posted out of the sale boundary. These areas were not included in the cruise. Within the sale area there are scattered individual trees marked with red paint that have been removed from the cruise. These scattered trees are distributed along the sale boundaries, primarily the western boundary, and some are adjacent to the stream buffers. In addition, this sale will be used as a source of logs for a fish log stockpile. The volume of these fish logs has also been removed from the cruise. The table below summarizes the green tree retention areas and the volume that has been removed from the cruise.

GTR Area	D-fir Count	D-fir MBF removed from cruise	Hemlock/ Cedar Count	Hemlock/ Cedar MBF removed from cruise	Hdwd Count	Hdwd MBF removed from cruise
AREA A	23		2		12	
AREA B	28	2.2	2		55	
AREA C	7				32	
AREA D	13				11	
AREA E	10				35	
AREA F	7		1		20	
AREA G	3	1.0			9	2.2
AREA H	3	1.0			6	
AREA I	7				32	
AREA J	1				6	
Scattered	29	34.6	6	2.4	1	0.4
Fish Log Stockpile	36	21.0				
TOTALS	167	60 mbf	11	< 3 mbf	219	< 3 mbf

8. Timber Description: The sale area is 90 acres and is comprised of 3 different timber types: 10 acres of 40 year-old Douglas-fir, 16 acres of 60 year-old Douglas-fir, and 64 acres of 70-79 year-old Douglas-fir. Red alder is scattered throughout the sale area and is concentrated in the stream buffers. There are limited amounts of hemlock and bigleaf maple. Stocking in all 3 types is medium. Timber quality is average. The 40 year-old type is located along the 1100 road and is the type immediately visible from the road. The mature types are visible from Point E inside the sale area. There are some poorly stocked areas dominated by brush and rock outcroppings. In 2005 a fire burned approximately 2.4 acres within the sale area along the western boundary and was salvage logged. The cruise expansion acres include only the timbered acres and not existing roads, rock, or burned areas.

9. Topography: The sale area is roughly equally divided into east and southeast/southwest aspects. Slopes are predominately over 80 percent. There are a number of exposed rock outcroppings. A small Type F tributary of Marlow Creek borders the eastern edge of the sale area. Two (2) perennial Type N streams and six (6) intermittent Type N

streams are within the sale area. In accordance to the Northwest Riparian Strategy, stream buffers have been posted along all Type F streams and all Type N drainages exhibiting a channel whether flowing or dry. Buffer lengths extend to encompass at least 75 percent of the length of most drainages. Buffer widths per side can range in size from 25 feet up to 160 feet in order to capture the required number of conifer trees (15 trees/1000 feet for Type N seasonals, 40 trees/1000 feet for Type N perennials, 115 trees/1000 feet for Type F). In accordance to the Elliott HCP, all buffer trees on Type N seasonals are counted as green tree retention, as well as buffer trees above 100 feet on Type F streams and buffer trees above 50 feet on Type N perennials. Locations of stream buffers and green tree retention areas are indicated on the Exhibit "A".

10. Logging Method: The sale area is designed to be cable logged uphill from an existing landing at Point C and from a new landing at Point E on newly constructed spur D-E. Landing E should have adequate guyline anchors since it is located within the mature timber type. Landing C has primarily young timber behind the landing and will most likely require artificial guyline anchors. The western portion of the sale has yarding distances approaching 2500 feet. Full suspension will be required while yarding over posted stream buffers and drainages. Single end suspension will be maintained over the remainder of the sale area. Portions immediately next to the 1100 road can be shovel logged from the road. The sale has been designed for dry season operation. The sale area abuts the Marlow Lockhart Marbled Murrelet Management Area for approximately 1100 feet along the southeast boundary. Approximately 11 acres or 12 percent of the sale is within 330 feet of the Marlow Lockhart MMMA and is seasonally restricted for marbled murrelets. The 1100 road will require some reconstruction from Points B-C to reduce the steep grade. Blasting operations within ¼ mile of the MMMA will be seasonally restricted. If winter or wet weather operations are planned, Purchaser shall comply with rocking and drainage requirements as specified in the contract. During the course of harvesting Purchaser shall identify trees to be used for the fish log stockpile, and fell, buck, yard, and deck them as specified in the contract.

11. Access: To access the timber sale area take the Coos River Highway through Eastside. Follow the signs to Allegany. Cross the Chandler Bridge and continue to Allegany. Proceed past Allegany to the 1000 road (Marlow Creek Road). Proceed up the 1000 for approximately 1 mile to the entering "Elliott State Forest" sign. Take the first left turn just past the sign onto the 1100 road. Continue up the 1100 road for approximately 5 miles to a recent harvest unit at the end of the rock surface. A cull deck blocks a dirt spur here. Either ATV or hike the dirt spur across the top of the recent harvest unit for approximately .3 miles into the sale area. The end of the road is Point C. The timber near the road is the young type. Descend into the sale area to the mature types.

12. Projects: See attached "Project Cost Summary Sheet"

Project No. 1: Road and Landing Construction

Project No. 2: Road Improvement

Project No. 3: Road Maintenance

NET VOLUMES AND ACREAGE

Piledup Marlow No. 2

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							Vol. per Acre
			By County and Fund						Total Vols.	
Areas	Spec	Coos			Douglas			Total Vols.		Vol. per Acre
		FRA	FDf	Total	FRA	FDf	Total			
	D-fir	302	2022	2324			0	2324	25.8	
	Hem	1	8	9			0	9	0.1	
	Hdwd	33	220	253			0	253	2.8	
TOTALS										
		336	2250	2586	0	0	0	2586		

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 2324 MBF
 Hemlock 9 MBF
 Hdwd 253 MBF

Report by: J. Haynes

Date: 11/19/2007

Unit For. Norm. Price 12/5/07
 Date

Asst. Dist. For. By Kremer 12.18.2007
 Date

**EXISTING INTERIOR ROAD ACREAGE DEDUCTED.
 NO INGROWTH INCLUDED.**

NET HARVEST ACREAGE BY COUNTY (to nearest acre)

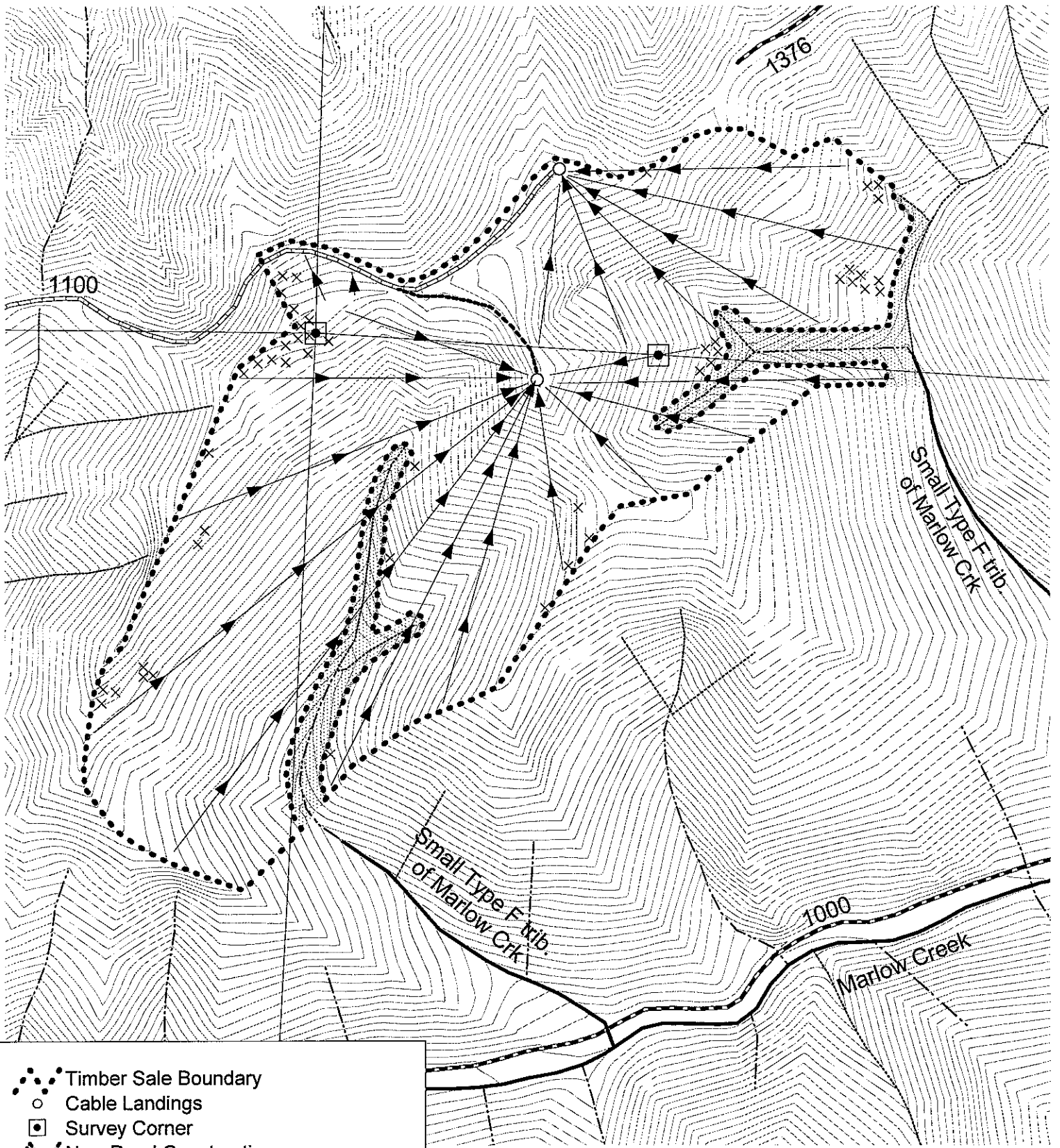
Sale Area	Coos County						Douglas County						TOTAL ACRES
	FRA			FDf			FRA			FDf			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
	12			78									90
SUM	12	0	0	78	0	0	0	0	0	0	0	0	90












cc- clearcut

pc- partial cut

FDf- Forest Development Fund

FRA- Forest Revenue Account



-  Timber Sale Boundary
-  Cable Landings
-  Survey Corner
-  New Road Construction
-  Existing Roads - State Maintained
-  Existing Roads - Purchaser Maintained
- Streams
-  Perennial Fish Bearing
-  Perennial Nonfish
-  Seasonal Drainage
-  Streambuffers / Green Tree Retention Areas
-  Individual Green Tree Retention

Logging Plan Map
Timber Sale No. 341-08-78
Piledup Marlow No. 2

scale 1" = 500'
 contour interval 20'

approx. 90 harvest acres



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