



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Knife Ridge No. 5 Sale 341-04-40

District: Coos

Date: 8/7/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$965,137.72	\$509.84	\$965,647.56
		Project Work	(\$51,583.00)
		Advertised Value	\$914,064.56



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Knife Ridge No. 5 Sale 341-04-40

District: Coos

Location: Portions of Section 31, T22S, R10W, WM Douglas Co. OR and Section 1, T23S, R11W, WM Coos Co. OR

Date: 8/7/03

Stand Stocking: 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	29	0	95
Western Hemlock / Fir	25	0	95
Alder (Red)	16	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
3P	36	0	0	36
SM	145	0	0	145
2S	1,552	0	0	1,552
3S	679	68	0	747
Camprun	0	0	2	2
Total	2,412	68	2	2,482

Comments: Pond Values Used: 2nd Quarter 2003.

Local pond value of \$400/mbf was used for hardwoods.

Multiple unit regeneration harvest sale of 113-117 year old predominately Douglas-fir sawtimber.



Timber Sale Appraisal Logging Conditions Knife Ridge No. 5 Sale 341-04-40

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	100.00%	
	Western Hemlock / Fir	100.00%	
	Alder (Red)	100.00%	
Yarding Distance:	Short (400 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:	14		Bd. Ft./Load: 4,800
Cost/MBF:	\$52.83		
Machines:			
	Log Loader (A)		
	Tower Yarder (Large)		



Timber Sale Appraisal

Logging Costs

Knife Ridge No. 5

Sale 341-04-40

"STEWARDSHIP IN FORESTRY"

Date: 8/7/03

Operating Seasons: 0.4

Profit & Risk: 15%

Project Costs: \$51,583

Other Costs (P/R): \$12,587

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	0.0	0.0	0.0

Road Maintenance: \$0.00

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	4.5
Western Hemlock / Fir	\$0.00	2.0	4.5
Alder (Red)	\$0.00	2.0	3.5

Local Pond Values

Date	Species	Grade	Value
8/7/03	Alder (Red)	Camprun	\$400.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Knife Ridge No. 5 Sale 341-04-40

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	52.83	52.83	52.83
Road Maintenance	0.32	0.32	0.33
Fire Protection	0.44	0.44	0.00
Hauling	53.79	53.79	73.00
Other (P/R appl.)	5.08	5.08	0.00
Profit & Risk	16.87	16.87	18.92
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	0.00
Other	0.00	0.00	0.00
Total	131.33	131.33	145.08

Amortization	0.00	0.00	0.00
Pond Value	526.01	325.00	400.00
Stumpage	394.68	193.67	254.92
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary

Knife Ridge No. 5 Sale 341-04-40

Amortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
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	Alder (Red)
MBF	2,412.00	68.00	2.00
Value	394.68	193.67	254.92
Total	951,968.16	13,169.56	509.84

Gross Timber Sale Value

Recovery \$965,647.56

Prepared by: Jon Haynes

Date: 8/7/03

District: Coos

Phone: (541) 267-1758

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Knife Ridge No. 5

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		\$ 10.00	\$ -
Directional Felling/Tree Jacking	MBF	1000	\$ 2.00	\$ 2,000.00
Felling of unmerch material	MBF		\$ 1.00	\$ -
Yarding and Loading				
Clear chute at cable settings	MBF		\$ 3.00	\$ -
Brand and paint logs	MBF	2482	\$ 1.00	\$ 2,482.00
Slash piling on landings	landing	4	\$ 125.00	\$ 500.00
Rig lift trees	lift tree	5	\$ 100.00	\$ 500.00
Artificial guy anchors(dozer, skidder)	anchor	6	\$ 500.00	\$ 3,000.00
Log Processing at landing	MBF		\$ 10.00	\$ -
Loader time for firewood stacking	Hours	3	\$ 75.00	\$ 225.00
Skid Road Layout	MBF		\$ 5.00	\$ -
Non required Road Construction	Stations			\$ -
Miscellaneous Costs				
Additional fire equipment	Seasons	0.4	\$ 2,000.00	\$ 800.00
Maintenance rock per section 54	Cubic Yards	60	\$ 18.00	\$ 1,080.00
Safety Flagging and/or signing	per day			\$ -
Tree topping	per tree	20	\$ 100.00	\$ 2,000.00
Total additional "Other Cost" with additional profit and risk to be added				\$ 12,587.00

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	\$ -
Grass Seeding and Fertilizing	Ac			\$ -

Total additional "Other Cost" with no additional profit and Risk

\$ -

**SUMMARY OF CONSTRUCTION COST
Knife Ridge No. 5**

Project 1A: Landing Construction

Point: B (Area 1)

Cut trees around landing area	<u>3</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$90.00</u>
Cat time to reshape old waste to make landing area larger	<u>5</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$625.00</u>

Project 1A Total \$715.00

Project 1B: Landing Construction

Point: C (Area 1)

Excavation

Cut trees around landing area	<u>2</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$60.00</u>
Excavator	<u>5</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$550.00</u>
Cat time (shape end-haul material at B)	<u>2</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$250.00</u>
Excavator to load boulders at Pt F	<u>3</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$330.00</u>

Total Excavation \$1,190.00

Hauling

Endhaul waste material to B	<u>5</u>	hrs at	<u>\$60.00</u>	per hr	<u>\$300.00</u>
Haul boulders from Pt F to Pt G	<u>3</u>	hrs at	<u>\$60.00</u>	per hr	<u>\$180.00</u>

Total Hauling \$480.00

Project 1B Total \$1,670.00

Project 1C: Landing Construction

Point: E (Area 3)

Cut trees around landing	<u>5</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$150.00</u>
Cat time	<u>6</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$750.00</u>

Project 1C Total \$900.00

Project 1D: Landing Construction

Point: H (Area 4)

Excavation

Saw Time	<u>2</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$60.00</u>
Excavator to build landing	<u>15</u>	hrs at	<u>\$110.00</u>	per hr	<u>\$1,650.00</u>
Excavator (move to & shape waste area)	<u>4</u>	hrs at	<u>\$111.00</u>	per hr	<u>\$444.00</u>
Drill and shoot	<u>4</u>	hrs at	<u>\$115.00</u>	per hr	<u>\$460.00</u>
Cat time (excavation & waste area)	<u>7</u>	hrs at	<u>\$125.00</u>	per hr	<u>\$875.00</u>
Laborer	<u>15</u>	hrs at	<u>\$30.00</u>	per hr	<u>\$450.00</u>

Total Excavation \$3,939.00

**SUMMARY OF CONSTRUCTION COST
Knife Ridge No. 5**

Hauling

Endhaul to waste area at Pt I 15 hrs at \$60.00 per hr \$900.00

Total Hauling \$900.00

Project 1D Total \$4,839.00

Move-In

Equipment	Miles	Mileage Factor	Equipment Allowance	Total
Excavator	35	0.74	\$533.00	\$394.42
D8 Cat	35	0.74	\$533.00	\$394.42
Grader	35	0.74	\$241.00	\$178.34
Drill & Comp	35	0.74	\$241.00	\$178.34
Dump Truck	35	0.74	\$144.00	\$106.56
Dump Truck	35	0.74	\$144.00	\$106.56

Total Move-In \$1,358.64

Project 1 Cost \$9,482.64

Project No. 2: Road Improvement

Points: D to E (Area 3)

Length: 1500'

Type: 14' w/o ditch

Excavation

Cat time - assist with road work, use 4 hrs at \$125.00 per hr \$500.00
slough material to shape road surface

Excavaor - remove slough and slash 5 hrs at \$110.00 per hr \$550.00

Total Excavation \$1,050.00

Grade Road Surface

Smooth road surface 1.5 hrs at \$75.00 per hr \$112.50

Total Grading \$112.50

Project 2 Cost \$1,162.50

**SUMMARY OF CONSTRUCTION COST
Knife Ridge No. 5**

Project No. 3A: Bickford Creek Stockpile

Location: 7000 Rd/1000 Rd Jct.
Measured amount: 1000 cubic yards
Delivered amount: 1200 cubic yards (includes 20% expansion)
Size: 1 1/2" - 0"

Cost per yard at crusher:	\$5.85	per yd
Haul cost per yard (2.8 hr. RT - Parker):	\$9.88	per yd
Piling and shaping cost per yard:	\$0.53	per yd
Total cost per yard:	\$16.26	per yd
Total yards:	1200	yards

Total Cost for Stockpile rock: \$19,512.00

Project 3A total \$19,512.00

Project No. 3B: Eleven Ridge Stockpile

Location: 8.5 mi on 1000 Rd
Measured amount: 1000 cubic yards
Delivered amount: 1200 cubic yards (includes 20% expansion)
Size: 1 1/2" - 0"

Cost per yard at crusher:	\$7.00	per yd
Haul cost per yard (2.3 hr. RT - Kenstone):	\$7.67	per yd
Piling and shaping cost per yard:	\$0.53	per yd
Total cost per yard:	\$15.20	per yd
Total yards:	1200	yards

Total Cost for Stockpile rock: \$18,240.00

Project 3B total \$18,240.00

Project 3 Cost \$37,752.00

SUMMARY OF CONSTRUCTION COST
Knife Ridge No. 5

Project No. 4: Fish Log Stockpile

Location: 7108 road, approximately 1/4 mile from 7100 road.
 Log Source: Knife Ridge No. 5, Area 4
 Log Count: 36 logs
 Log Volume: 56 mbf removed from cruise

<u>Felling and Bucking</u>	<u>56</u>	mbf at	<u>\$8.00</u>	\$ per mbf =	<u>\$448.00</u>
<u>Yarding</u>	<u>56</u>	mbf at	<u>\$35.00</u>	\$ per mbf =	<u>\$1,960.00</u>
<u>Skidding to Stockpile</u>					
skidder time	<u>6</u>	hours at	<u>\$75.00</u>	\$ per hour	<u>\$450.00</u>
<u>Final Stacking of Stockpile</u>					
loader time	<u>2</u>	hours at	<u>\$75.00</u>	\$ per hour	<u>\$150.00</u>

Total Felling, Yarding & Skidding \$3,008.00

Move-in

<u>Equipment</u>	<u>Miles</u>	<u>Mileage Factor</u>	<u>Equipment Allowance</u>	<u>Total</u>
Skidder	35	0.74	\$241.00	\$178.34

Total Move-in \$178.34

Total Project 4 cost \$3,186.34

Total Project Costs \$51,583.48

TIMBER SALE SUMMARY

Knife Ridge No. 5

1. Type of Sale: Final Harvest, Recovery, Sealed Bid

2. Boundary Lines: Sale boundaries of Areas 1, 2, 3, and 4 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: 100% CSL; 0% BOF, 58% Douglas County, 42% Coos County

4. Sale Acreage: The sale is divided into four separate areas totaling approximately 38 net harvest acres. Sale acreages were determined from electronic digitizing using the ArcView GIS program and deductions were made for existing interior roads.

Area	Posted Acres	Interior Road Acres	Net Cruise Acres	Net Harvest Acres
1	10.0	.50	9.5	9.5
2	1.7	0	1.7	1.7
3	11.6	.10	11.5	11.5
4	16.4	.92	15.5	15.5

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

6. Grade: (by Percent) Areas 1 - 4

Species	3 Peeler %	Spec. Mill %	2 Saw %	3 Saw %	4 Saw/Camprun %
Douglas-fir	2 %	6 %	64 %	28 %	
Hemlock				100 %	
Hardwoods					100 %

7. Cruise: Areas 1 - 4 were variable plot cruised using a nested Big BAF plot method. The Big BAF method is a combination of count plots and individually measured trees on fifty-seven (57) nested plots. On Areas 1, 2, and 4 the plots were spaced 1 chain apart on cruise lines spaced 6 chains apart. On Area 3 the plots were spaced 2 chains apart on cruise lines spaced 4 chains apart. At each plot center a 250 BAF full plot was taken to determine which Douglas-fir trees would be fully measured. A total of 49 Douglas-fir trees were fully measured for DBH, form, height, grade and defect. At the same plot centers a 40 BAF full plot was used to determine tree counts and to measure minor species. Cruising was done in May 2003 by ODF foresters.

A. Summary data:

AREAS 1 - 4

Diam	Ht. Stand	Form Pt.	Form Factor	CV %	SE %
D4H	6" DIB or 30% of diam at 16 feet	Conifer: 16' Hardwood: 4'	Recorded for all cruised trees by estimate and measure	56 %	7.4 %

B. Defect and Breakage Summary:

AREAS 1 - 4 : BY PERCENT

SPECIES	CRUISED DEFECT	HIDDEN DEFECT	BREAKAGE	TOTAL %
DOUGLAS FIR	4	2	4	10
HEMLOCK	1	4	4	9
HARDWOODS	0	15	--	15

C. Stand Data:

AREAS 1 - 4

SPECIES	DBH	TREES/ACRE	BASAL AREA/AC	NET MBF/ACRE
DOUGLAS FIR	29	55	244	64
HEMLOCK	25	4	12	2
HARDWOODS	16	<1	<3	<1

D. Green Tree Retention: There are twelve (12) green tree reserve areas associated with this sale (Area 1 has three, Area 2 has two, Area 3 has three, and Area 4 has four). Green tree retention areas 1-9, part of 10, and 11 have been posted out of the sale area with "Timber Sale Boundary" posters, red flagging and red paint. Part of reserve area 10 is individually red painted trees, and all of reserve area 12 is individually blue painted trees. Volumes of the individually painted trees have been removed from the cruise. In addition, 56 mbf net of Douglas-fir has been removed from the cruise to establish a fish log stockpile on the 7108 road.

GTR Area	D-fir Count	D-fir MBF	Hemlock Count	Hemlock MBF	Hdwd Count	Hdwd MBF
AREA 10	6	5.9	--	--	--	--
AREA 12	13	24.4	4	<1	32	2.9

8. Timber Description: Timber in Areas 1-4 are even-aged and medium to well stocked with 113 to 117 year old Douglas-fir with some scattered western hemlock and small pockets of red alder. There is also some scattered red cedar which is exempt from felling. Timber quality varies from unit to unit but is generally average to good. There is some recent blowdown timber on the northeast faces in Area 1, 2 and 4 which is to be salvaged. This blowdown was not included in the cruise and no deductions for deterioration were made.

9. Topography: The topography of the sale area is moderate to steep with slopes from 60% to over 70%. Unnamed Type N tributaries of Deer Creek and Knife Creek flow between Areas 1 and 2 and adjacent to Area 3. Area 4 has only seasonal Type N drainages originating within the sale area.

10. Logging Method: Areas 1, 2 and 4 will be cable logged uphill from landings on the 7100 road. Area 3 will be cable logged uphill from an existing spur into the sale area. Full suspension will be required while yarding over drainages and stream buffers, and due to the steep slopes, full suspension will be maintained where possible over the remainder of the sale. Single end suspension will be utilized where full suspension is not possible. Fifty (50) foot width slope distance buffers have been posted on both sides of the Type N stream flowing between Area 1 and 2, and along the Type N's flowing adjacent to Area 3. Green tree retention areas have been located in inoperable corners and faces, as stream buffer extensions, and as scattered lone trees and clusters on the upper slopes. Locations of stream buffers and green tree retention areas associated with the sale area are indicated on the Exhibit "A". During the process of yarding the sale area 36 logs shall be skidded to a fish log stockpile site located on the 7108 road.

11. Access: To access the timber sale area from the south, take the Lakeside exit off Highway 101, continue east on the North Lake Road to the 4000 road (Benson Ridge Road). Continue on the 4000 for approximately 7 miles to the 4900, then to the 2000 road. Continue south on the 2000 road to the 8000. Head down the 8000 for approximately 2 miles to the 7100 road. Proceed up the 7100 for approximately 1.5 miles into Area 4. To access the timber sale area from the north, take the Dean Creek Rd from Highway 38 at the elk viewing area. Continue south on the Dean Creek Rd until it turns into the 2000 (Dean Mountain Road). Continue on the 2000 to the 7000 road. Turn left on the 7000 and proceed to the 7100 road. Head south on the 7100 road for approximately 1 mile into Area 1.

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

Project No. 1: Landing Construction

Project No. 2: Road Improvement

Project No. 3: Rock Stockpile Delivery

Project No. 4: Fish Log Stockpile Delivery

NET VOLUMES AND ACREAGE

Knife Ridge No. 5

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							Vol. per Acre
			By County and Fund						Total Vols.	
			Coos			Douglas				
Areas	Spec		FRA	FDf	Total	FRA	FDf	Total		
1 - 4	D-fir		1013		1013	1399		1399	2412	63.5
	Hem		29		29	39		39	68	1.8
	Hdwd		1		1	1		1	2	0.1
TOTALS			1043	0	1043	1439	0	1439	2482	

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 2412 MBF
 Hemlock 68 MBF
 Hdwd 2 MBF

Report by: J. HAYNES

Date: 6/16/2003

Unit For. Home Line 6/29/03

Asst. Dist. For. Doug Kremer 6-27-2003

NO INGROWTH INCLUDED. UTILITY VOLUME NOT INCLUDED TO PROVIDE FOR DOWN WOOD RETENTION. RED CEDAR EXEMPT FROM FELLING.

NET HARVEST ACREAGE BY COUNTY (to nearest acre)

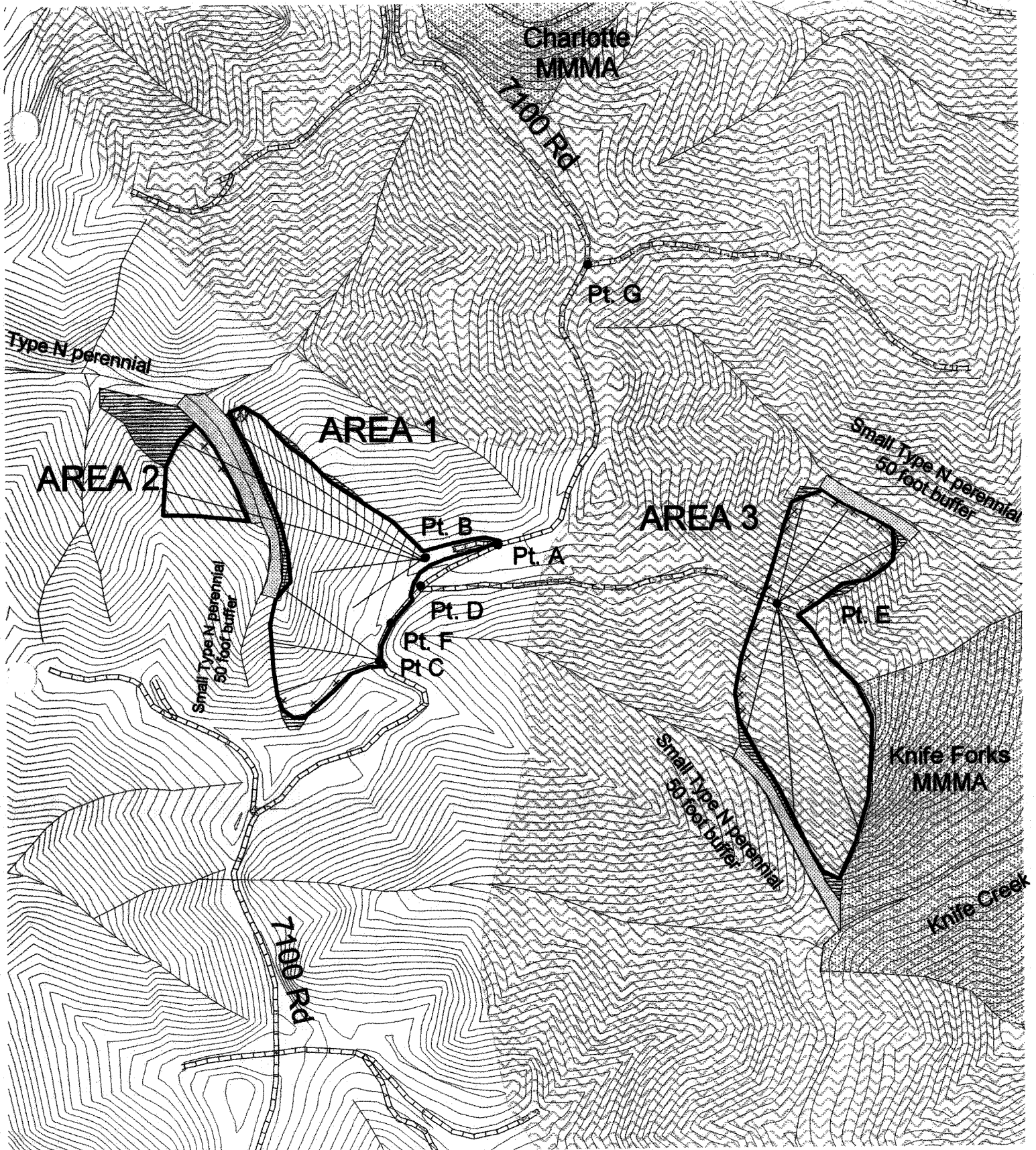
Sale Area	Coos County						Douglas County						TOTAL ACRES
	FRA			FDf			FRA			FDf			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
1							9						9
2							2						2
3							11						11
4	16												16
SUM	16	0	0	0	0	0	22	0	0	0	0	0	38

cc- clearcut

pc- partial cut

FDf- Forest Development Fund

FRA- Forest Revenue Account



- Timber sale boundary
- Streams
- Streambuffers
- Individual green tree retention
- Green tree retention areas
- Seasonally restricted
- Marbled murrelet management area
- Cable landings and project points
- Roads
- 20 foot contour lines

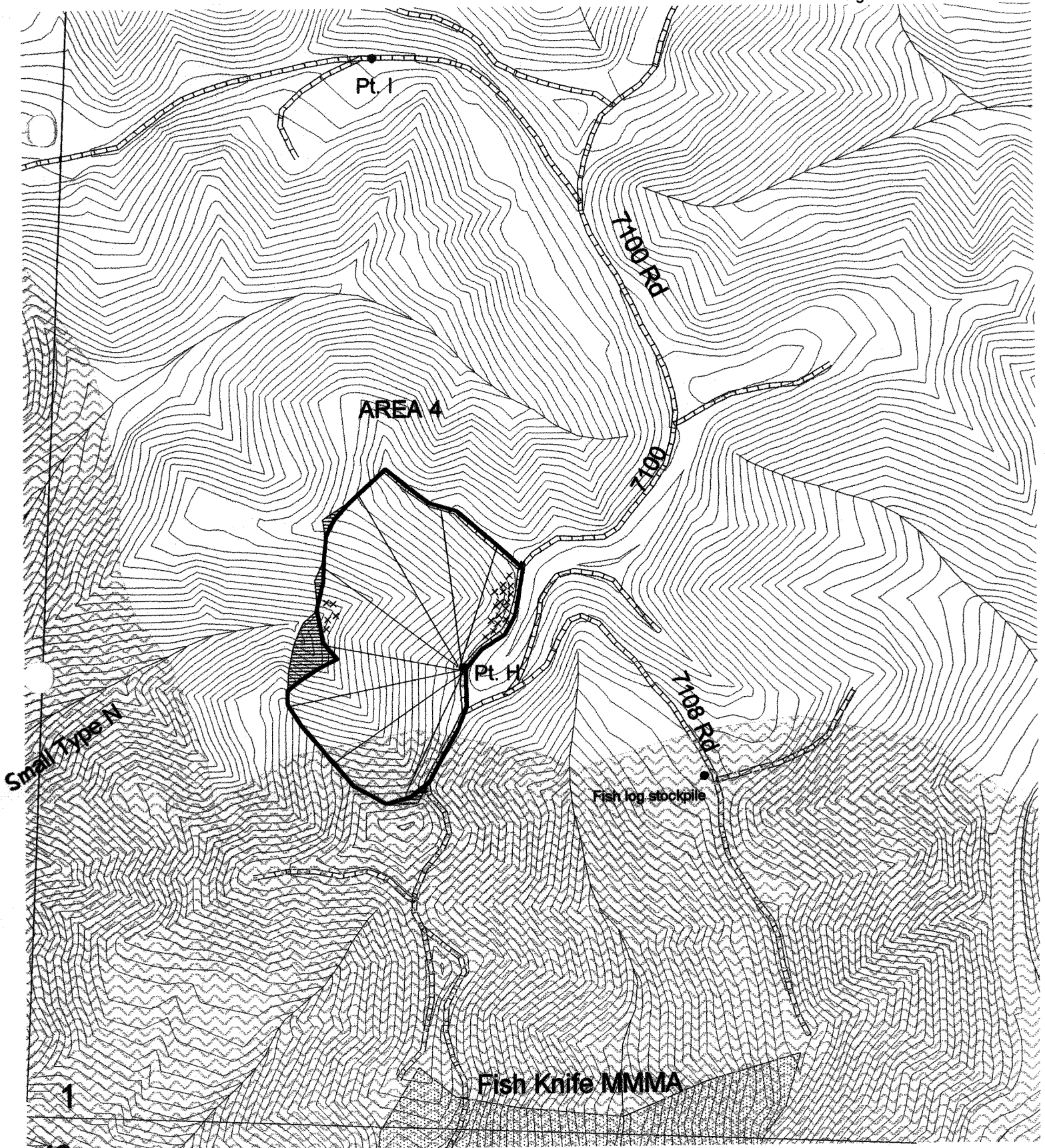
Logging Plan











Knife Ridge No. 5 341-04-40



scale 1" = 500 feet

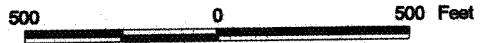




-  Timber sale boundary
-  Streams
-  Streambuffers
-  Individual green tree retention
-  Green tree retention areas
-  Seasonally restricted
-  Marbled murrelet management area
-  Cable landings and project points
-  Roads
-  20 foot contour lines

Logging Plan

Knife Ridge No. 5 341-04-40



scale 1" = 500 feet

