



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
McKenny Flats
Sale 341-10-56

District: Tillamook

Date: September 04, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$99,586.95	\$36,953.28	\$136,540.23
		Project Work:	\$(18,970.00)
		Advertised Value:	\$117,570.23



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timber description

Location: Portions of Sections 9, 16, and 17, T2N, R8W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	95
Western Hemlock / Fir	16	0	95
Alder (Red)	12	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	140	480	288	0	0	908
Western Hemlock / Fir	0	0	56	233	64	0	0	353
Alder (Red)	55	6	0	0	0	198	77	336
Total	55	6	196	713	352	198	77	1,597



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comments: Pond Values Used: 2nd Quarter Calendar Year 2009.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$540/\text{MBF} = \$740/\text{MBF} - \$200/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to $\$700$ daily truck cost.

Other Costs (with Profit & Risk to be added):

Brand and Paint: $\$1/\text{MBF} \times 1,597 \text{ MBF} = \$ 1,597$

TOTAL Other Costs (with Profit and Risk to be added) = $\$1,597$

Other Costs (No Profit & Risk added):

Tank trap installation on un-surfaced road and road vacating: $2 \times \$ 75 = \150

Truck assist Area 2: $107 \text{ MBF} \times \$35 = \$ 3,745$

Tractor swing total of 15 acres in two locations: $255 \text{ MBF} \times \$43 = \$ 10,965$

Non-project Roads:

Road 1: 2 stations @ $\$200/\text{station} = \$ 400$

Road 2: 6 stations @ $\$200/\text{station} = \$ 1,200$

TOTAL Other Costs (No Profit & Risk added) = $\$16,460$

ROAD MAINTENANCE

Road Maintenance: Cook Creek and South Fork Cook Creek Roads

Interim Grading: $\$250/\text{mile} \times 8.1 \text{ miles} \times 1 \text{ time} / 1,597 \text{ MBF} = \$ 1.27/\text{MBF}$

Final Grading: $\$500/\text{mile} \times 8.1 \text{ miles} / 1,597 \text{ MBF} = \$ 2.54/\text{MBF}$

Spot rocking: $(50 \text{ cy crushed} \times 9.50/\text{cy}) / 1,597 \text{ MBF} = \$ 0.30$

TOTAL ROAD MAINTENANCE COST: $\$ 4.11 / \text{MBF}$



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logging conditions

combination#: 1 Douglas - Fir 70.00%
 Western Hemlock / Fir 70.00%

yarding distance: Medium (800 ft) downhill yarding: No
 logging system: Cable: Medium Tower >40 - <70 Process: Stroke Delimber
 tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
 loads / day: 8.0 bd. ft / load: 3,500
 cost / mbf: \$119.43

machines: Log Loader (A)
 Stroke Delimber (A)
 Tower Yarder (Medium)

combination#: 2 Douglas - Fir 30.00%
 Western Hemlock / Fir 30.00%

yarding distance: Short (400 ft) downhill yarding: No
 logging system: Shovel Process: Stroke Delimber
 tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
 loads / day: 10.4 bd. ft / load: 3,500
 cost / mbf: \$39.51

machines: Stroke Delimber (B)

combination#: 3

 Alder (Red) 70.00%

yarding distance: Medium (800 ft) downhill yarding: No
 logging system: Cable: Medium Tower >40 - <70 Process: Stroke Delimber
 tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
 loads / day: 5.6 bd. ft / load: 3,200
 cost / mbf: \$186.61

machines: Log Loader (A)
 Stroke Delimber (A)
 Tower Yarder (Medium)

combination#: 4

 Alder (Red) 30.00%



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Date: September 04, 2009

yarding distance:	Short (400 ft)	downhill yarding:	No
logging system:	Shovel	Process:	Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	7.5	bd. ft / load:	3,200
cost / mbf:	\$59.93		
machines:	Stroke Delimber (B)		



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logging costs

Operating Seasons:	1.00	Profit Risk:	15.00%
Project Costs:	\$18,970.00	Other Costs (P/R):	\$1,597.00
Slash Disposal:	\$0.00	Other Costs:	\$16,460.00

Miles of Road

Road Maintenance: \$4.11

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	3.0	3.5
Western Hemlock / Fir	\$0.00	3.0	3.7
Alder (Red)	\$0.00	3.0	3.2



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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									
\$95.45	\$4.32	\$2.75	\$60.87	\$1.00	\$24.66	\$0.00	\$5.00	\$10.31	\$204.36
Western Hemlock / Fir									
\$95.45	\$4.32	\$2.75	\$57.58	\$1.00	\$24.16	\$0.00	\$5.00	\$10.31	\$200.57
Alder (Red)									
\$148.61	\$4.52	\$2.75	\$69.75	\$1.00	\$33.99	\$0.00	\$5.00	\$10.31	\$275.93

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$296.50	\$92.14	\$0.00
Western Hemlock / Fir	\$0.00	\$245.68	\$45.11	\$0.00
Alder (Red)	\$0.00	\$385.91	\$109.98	\$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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	908	\$92.14	\$83,663.12
Western Hemlock / Fir	353	\$45.11	\$15,923.83
Alder (Red)	336	\$109.98	\$36,953.28

Gross Timber Sale Value

Recovery: \$136,540.23

Prepared by: David Wells

Phone: 503-842-2545



PROJECT SUMMARY SHEET

Sale: McKenny Flats

CONSTRUCTION

Point	C to D	5+40	stations =	\$1,756.62
Point	E to F	7+00	stations =	\$2,731.50
Point	G to H	3+00	stations =	\$1,332.25
SUBTOTAL CONSTRUCTION				\$5,820.37

IMPROVEMENT

Point	G to H	3+70	stations =	\$2,083.30
SUBTOTAL IMPROVEMENT				\$2,083.30

RECONSTRUCTION

Point	A to B	7+00	stations =	\$1,859.50
Point	C to D	7+60	stations =	\$2,016.88
Point	G to H	11+10	stations =	\$4,500.81
SUBTOTAL RECONSTRUCTION				\$8,377.19

MOVE IN **\$2,689.14**

GRAND TOTAL **\$18,970.00**

SUMMARY OF CONSTRUCTION COST

Sale: **McKenny Flats** Road: **A to B**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	7+00	stations
	0.00	miles		0.00	miles		0.13	miles

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering

0.320 acres @ \$980.00 per acre = \$313.60
TOTAL CLEARING AND GRUBBING \$313.60

RECONSTRUCTION: EXCAVATION -
Road Earthwork

7.00 sta. @ \$45.00 per sta. = \$315.00
TOTAL EXCAVATION \$315.00

ROCK

0+00 to 1+00 40 cy. of Crushed @ \$8.49 per c.y. = \$339.60
TOTAL ROCK \$339.60

SPECIAL PROJECTS

Construct landing -	1	@	\$285.00	each	\$285.00
Construct turnaround -	1	@	\$75.00	each	\$75.00
Grade and shape road -	7.00	stations @	\$15.50	per station	\$108.50
Roll subgrade w/ vibratory roller	7.00	stations @	\$13.20	per station	\$92.40
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00
Grass seed and fertilize -	0.32	acres @	\$220.00	per acre	\$70.40
				TOTAL SPECIAL PROJECTS	\$891.30

GRAND TOTAL **\$1,859.50**

SUMMARY OF CONSTRUCTION COST

Sale: **McKenny Flats** Road: **C to D**

<u>Construction -</u> 5+40 stations	<u>Improvement -</u> 0+00 stations	<u>Reconstruction -</u> 7+60 stations
0.10 miles	0.00 miles	0.14 miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
0+00		1+50	35%			\$191	=	\$286.50	
9+10		13+00	30%			\$191	=	\$744.90	
								TOTAL	\$1,031.40

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering

0.590	acres	@	\$980.00 per acre =	\$578.20	
				TOTAL CLEARING AND GRUBBING	\$578.20

RECONSTRUCTION: EXCAVATION -
Road Earthwork

7.60	sta.	@	\$55.00 per sta. =	\$418.00	
				TOTAL EXCAVATION	\$418.00

ROCK

0+00	to	1+00	40	cy. of	Crushed	@	\$9.02 per c.y.=	\$360.80	
								TOTAL ROCK	\$360.80

SPECIAL PROJECTS

Construct landing -	1	@	\$285.00	each	\$285.00				
Construct turnaround -	1	@	\$75.00	each	\$75.00				
Grade and shape road -	13.00	stations @	\$15.50	per station	\$201.50				
Roll subgrade w/ vibratory roller -	13.00	stations @	\$13.20	per station	\$171.60				
Remove large stumps -	1.00	lump sum @	\$520.00		\$520.00				
Grass seed and fertilize -	0.60	acres @	\$220.00	per acre	\$132.00				
								TOTAL SPECIAL PROJECTS	\$1,385.10

GRAND TOTAL **\$3,773.50**

SUMMARY OF CONSTRUCTION COST

Sale: **McKenny Flats** Road: **E to F**

Construction - <u>7+00</u> stations 0.13 miles	Improvement - <u>0+00</u> stations 0.00 miles	Reconstruction - <u>0+00</u> stations 0.00 miles
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CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
0+00		7+00	30%		Outslope	\$191	=	\$1,337.00	
								TOTAL	\$1,337.00

ROCK									
0+00	to	1+00	40	cy. of	Crushed	@	\$9.33 per c.y.=	\$373.20	
								TOTAL ROCK	\$373.20

SPECIAL PROJECTS

Construct landing -	1	@	\$285.00	each	\$285.00
Construct turnaround -	1	@	\$75.00	each	\$75.00
Grade and shape road -	7.00	stations @	\$15.50	per station	\$108.50
Roll subgrade w/ vibratory roller prior to rocking -	7.00	stations @	\$13.20	per station	\$92.40
Remove large stumps -	1.00	lump sum @	\$390.00		\$390.00
Grass seed and fertilize -	0.32	acres @	\$220.00	per acre	\$70.40
					TOTAL SPECIAL PROJECTS
					\$1,021.30

GRAND TOTAL **\$2,731.50**

SUMMARY OF CONSTRUCTION COST

Sale: **McKenny Flats** Road: **G to H**

<u>Construction</u> - <u>3+00</u> stations 0.06 miles	<u>Improvement</u> - <u>3+70</u> stations 0.07 miles	<u>Reconstruction</u> - <u>11+10</u> stations 0.21 miles
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CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
14+80		17+80	35%		Outslope	\$191		\$573.00	
								TOTAL	\$573.00

IMPROVEMENT: CLEARING AND GRUBBING -
Scattering

0.200	acres	@	\$980.00	per acre =	\$196.00		
						TOTAL CLEARING AND GRUBBING	\$196.00

IMPROVEMENT: EXCAVATION -
Road Earthwork

3.70	sta.	@	\$257.00	per sta. =	\$950.90		
						TOTAL EXCAVATION	\$950.90

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering

0.820	acres	@	\$980.00	per acre =	\$803.60		
						TOTAL CLEARING AND GRUBBING	\$803.60

RECONSTRUCTION: EXCAVATION -
Road Earthwork

11.10	sta.	@	\$80.00	per sta. =	\$888.00		
						TOTAL EXCAVATION	\$888.00

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>		72	LF of 18"	\$1,260.00	0	LF of 24"	\$0.00	
				\$1,260.00			\$0.00	
<u>Culvert Stakes & Markers</u>		2	markers	\$16.00			\$16.00	
				\$16.00			\$16.00	
							TOTAL CULVERTS	\$1,276.00

ROCK

0+00	to	1+00	40	cy. of	Crushed	@	\$9.55	per c.y.=	\$382.00	
11+10	to	11+80	40	cy. of	Crushed	@	\$9.73	per c.y.=	\$389.20	
									TOTAL ROCK	\$771.20

SPECIAL PROJECTS

Remove Logging Slash & Debris in Road Between Sta.s 0+00 & 3+70	3.00	hours	@	\$145.00	per hour	\$435.00	
Construct waste area -	1.00	hours	@	\$130.00	per hour	\$130.00	
Construct landing -	1	@		\$285.00	each	\$285.00	
Construct turnaround	1	@		\$75.00	each	\$75.00	
Grade and shape road -	17.80	stations	@	\$15.50	per station	\$275.90	
Roll subgrade w/ vibratory roller prior to rocking -	17.80	stations	@	\$13.20	per station	\$234.96	
Remove buried logs @ station:11+10	2.00	hours	@	\$130.00	per hour	\$260.00	
Remove large stumps -	1.00	lump sum	@	\$390.00		\$390.00	
Grass seed and fertilize -	1.69	acres	@	\$220.00	per acre	\$371.80	
						TOTAL SPECIAL PROJECTS	\$2,457.66

GRAND TOTAL **\$7,916.36**

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

Sale: McKenny Flats

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
26.0	Pavement	30
8.0	Main Lines	6
1.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Graders	\$456.00		\$3.65	0.00	1.75	1.75	\$6.39	\$462.39
1	Rollers (smooth/grid) & Compactors	\$421.28		\$5.00	0.00	1.75	1.75	\$8.75	\$430.03
1	Excavators (Large)	\$634.03	1	\$44.80	0.00	1.75	1.75	\$78.40	\$712.43
1	Tractors (D7)	\$570.13	2	\$11.30	0.00	1.75	1.75	\$19.78	\$589.91
2	Dump Truck (10 cy +)	\$344.51		\$2.85	0.00	1.75	1.75	\$9.98	\$354.49
1	Water Truck (1500 Gal)	\$134.90		\$2.85	0.00	1.75	1.75	\$4.99	\$139.89
TOTAL MOVE-IN COSTS:								\$2,689.14	



STEWARDSHIP IN FORESTRY

OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *McKenny Flats*

1. **Type of Sale**

Modified Clear-cut and Partial Cut, Recovery

2. **Legal Description**

Sections 9, 16, and 17, T2N, R8W, W.M. Tillamook County, Oregon

3. **Sale Acreage**

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

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Modified Clear Cut)	34	33
Area 2 (Modified Clear Cut)	62	56
Area 3 (Partial Cut)	6	6

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. **Cruising Procedures**

A. Cruise Method

Areas 1, 2, and 3 were cruised with a 350' square grid with lines on a N25⁰E and N70⁰E bearing respectively. Trees were measured to the nearest foot in height and inch in diameter. Top cruise diameter was 5" for Douglas-fir and other conifers and 6" for hardwoods or 25% of the diameter breast height whichever was larger. Based on net board feet the combined CV and SE for Areas 1 and 2 is 46.2% and 7.8% respectively.

B. Plot size

A BAF of 33.61 was used on all of the areas. 4 1/2 feet was the point of tree observation.

C. Grading System

Trees were graded using Columbia River Log Scaling and Grading rules, favoring 40' logs.

5. **Computation Procedure**

Plot data was entered into SuperAce for computation of stand information and

volume. Net take volume was determined by removing leave tree volume in Areas 1, 2, and 3. Western hemlock, noble fir, and grand fir volumes were combined for appraisal purposes.

6. Hidden Defect and Breakage

A 2% defect and breakage was applied to conifers and a 5% reduction to hardwood volumes for hidden defect. This was in addition to visual defect deducted during the cruise.

7. Timber Description

The stand contains 45 to 50 year old timber. Portions of Areas 1 and 2 were seeded between 1958 and 1961 and then the areas were planted between 1965-67. Alder in Area 1 was sprayed in 1977. The areas have received no other forest management. The entire sale area was burned in 1933 and 1945.

8. Cruiser Names/Dates

Contract cruise, November 2007 and ODF Contracts Unit Personnel June 2009

9. Revenue Distribution

FDF 100%

Tax Code: 56-1 75%

56 25%

Deed Numbers: 35

10. Attachments

Volume Summaries

Logging Plan Map

Stand Table

Log Stock Tables

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave

DF – Douglas-fir take

GF – Grand fir

RA – Red alder take

OH – Red alder Leave

NF – Noble fir

SS – Sitka spruce

WH – Western hemlock take

WL – Western hemlock leave

McKenny Flats - All Areas

T02N R08W S16 TALL

T02N R08W S16 TALL

Twp Rge Sec Tract
02N 08W 16 TOTAL SALE

Type Acres Plots Sample Trees
ALL 95.00 35 202

Page: 1
Date: 08/19/20
Time: 4:04:32PM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		8	4	85	61	11.121	3.88	11.12	6.2	26.9	1.98	69	300	188	66	28
DF		9	7	86	65	15.377	6.79	13.18	7.7	31.0	2.89	102	409	275	96	39
DF		10	10	88	87	18.028	9.71	23.26	10.6	44.4	7.05	247	1,034	670	235	98
DF		11	7	84	83	10.193	6.79	14.50	11.8	43.1	4.88	171	625	464	163	59
DF		12	14	87	83	17.326	13.59	25.91	14.3	52.8	10.54	370	1,368	1,001	351	130
DF		13	13	86	89	13.807	12.62	26.56	14.4	53.8	10.88	382	1,428	1,033	363	136
DF		14	6	87	97	5.474	5.82	10.95	17.0	63.8	5.29	186	698	502	176	66
DF		15	5	85	82	3.954	4.85	7.12	20.5	71.9	4.15	146	512	395	139	49
DF		16	4	85	83	2.780	3.88	4.87	22.4	72.8	3.11	109	354	295	104	34
DF		17	6	87	82	3.702	5.82	6.17	26.4	97.0	4.64	163	599	441	155	57
DF		18	2	86	94	1.098	1.94	2.20	30.3	112.7	1.90	67	248	180	63	24
DF		19	2	84		.981	1.94	1.96	34.0	110.2	1.90	67	216	181	63	21
DF		21	3	82	98	1.210	2.91	2.82	36.5	114.8	2.93	103	324	278	98	31
DF		23	1	88		.336	.97	1.01	42.8	192.7	1.23	43	194	117	41	18
DF		26	2	88		.522	1.94	1.31	60.8	250.8	2.27	79	328	215	76	31
DF		28	1	81	94	.227	.97	.45	75.1	254.8	.97	34	116	92	32	11
DF		30	2	85		.395	1.94	.79	88.7	335.6	2.00	70	265	190	67	25
DF		31	1	86		.185	.97	.56	77.0	339.7	1.22	43	189	116	41	18
DF		32	3	84		.521	2.91	1.04	105.0	413.2	3.12	110	431	297	104	41
DF		35	1	84	69	.145	.97	.29	88.0	264.6	.73	26	77	69	24	7
DF	Totals		94	86	81	107.384	91.23	156.08	16.6	62.2	73.67	2,586	9,714	6,999	2,456	923
RA		8	3	87	34	8.253	2.88	5.50	4.8	23.7	.72	26	131	68	25	12
RA		9	4	82	40	8.695	3.84	8.69	7.0	26.1	1.67	61	227	159	58	22
RA		10	5	82	59	8.803	4.80	8.80	11.3	34.2	2.73	100	301	260	95	29
RA		11	6	85	50	8.731	5.76	8.73	12.2	41.2	2.94	107	359	279	102	34
RA		12	5	83	66	6.113	4.80	7.34	15.6	47.5	3.14	114	348	298	109	33
RA		13	7	83	70	7.293	6.72	10.42	16.4	53.2	4.71	171	554	447	163	53
RA		14	8	82	69	7.186	7.68	9.88	20.4	57.9	5.54	202	572	527	192	54
RA		15	5	83	59	3.913	4.80	5.48	18.9	61.1	2.86	104	335	272	98	32
RA		16	2	83	65	1.376	1.92	2.06	24.5	66.5	1.39	51	137	132	48	13
RA		17	4	85	68	2.437	3.84	4.26	24.9	73.3	2.93	106	313	278	101	30
RA		18	2	81	59	1.087	1.92	1.63	30.0	72.8	1.35	49	119	128	46	11
RA		19	2	81	55	.975	1.92	.98	46.6	80.7	1.25	45	79	118	43	7
RA		21	2	80	63	.798	1.92	1.20	42.4	104.5	1.40	51	125	133	48	12
RA	Totals		55	83	56	65.659	52.82	74.97	15.8	48.0	32.61	1,187	3,600	3,098	1,128	342
WH		10	1	91	72	1.761	.96	1.76	14.2	68.6	.80	25	121	76	24	11
WH		11	1	85	29	1.455	.96	1.46	7.8	29.4	.36	11	43	34	11	4
WH		12	2	87	84	2.445	1.92	3.67	14.7	55.5	1.73	54	204	164	51	19
WH		13	2	87	71	2.084	1.92	3.13	15.0	52.3	1.50	47	163	143	45	16
WH		14	4	87	80	3.593	3.84	6.29	17.3	65.8	3.48	109	414	331	103	39
WH		15	1	88	87	.783	.96	1.57	19.9	68.6	1.00	31	107	95	30	10
WH		16	3	87	81	2.063	2.88	3.44	25.7	96.0	2.83	88	330	269	84	31
WH		17	3	89	90	1.828	2.88	3.66	26.8	102.9	3.13	98	376	298	93	36
WH		18	1	83	82	.543	.96	1.09	26.6	83.3	.93	29	91	88	28	9
WH		20	1	83	99	.440	.96	.88	41.1	147.0	1.16	36	129	110	34	12
WH		21	3	86	91	1.198	2.88	2.40	40.4	133.9	3.10	97	321	294	92	30
WH		22	1	90		.364	.96	.73	49.1	205.8	1.14	36	150	109	34	14
WH		24	1	83	68	.306	.96	.61	44.5	127.4	.87	27	78	83	26	7
WH		26	1	84		.260	.96	.78	51.2	199.3	1.28	40	156	122	38	15
WH		28	1	76	99	.225	.96	.45	78.4	215.6	1.13	35	97	107	33	9

McKenny Flats - All Areas

T02N R08W S16 TALL

T02N R08W S16 TALL

Twp Rge Sec Tract
02N 08W 16 TOTAL SALE

Type Acres Plots Sample Trees
ALL 95.00 35 202

Page: 2
Date: 08/19/20
Time: 4:04:32PM

S SpC	T	Sample DBH	FF Trees	Av Ht 16'	Trees/ Acres	BA/ Acres	Logs Acres	Average Log		Net Tons/ Acres	Net Cu.Ft. Acres	Net Bd.Ft. Acres	Totals		
								Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
WH	Totals	26	87	78	19.347	24.97	31.89	23.9	87.1	24.44	764	2,779	2,322	725	264
DL	10	1	90	77	1.833	.96	1.83	11.6	40.0	.58	21	73	55	20	7
DL	12	1	91	94	1.331	.96	2.66	9.8	45.0	.72	26	120	68	25	11
DL	13	1	76	94	1.042	.96	2.08	14.2	45.0	.81	30	94	77	28	9
DL	14	1	89	99	.898	.96	1.80	18.1	75.0	.90	33	135	85	31	13
DL	15	1	88	95	.783	.96	1.57	19.4	75.0	.84	30	117	79	29	11
DL	16	1	88	99	.671	.96	1.34	26.2	110.0	.97	35	148	92	33	14
DL	17	1	88	90	.609	.96	1.22	26.5	105.0	.89	32	128	84	31	12
DL	21	1	88	98	.399	.96	.80	39.1	135.0	.86	31	108	82	30	10
DL	27	1	83		.242	.96	.48	73.2	235.0	.97	35	114	92	34	11
DL	28	1	86		.225	.96	.67	52.4	230.0	.97	35	155	92	34	15
DL	Totals	10	87	92	8.033	9.60	14.46	21.4	82.4	8.51	309	1,191	808	294	113
NF	17	1	89	95	.609	.96	1.22	27.4	115.0	.80	33	140	76	32	13
NF	27	1	92		.242	.96	.72	53.7	260.0	.93	39	188	89	37	18
NF	31	1	82		.183	.96	.37	96.2	360.0	.85	35	132	80	33	13
NF	Totals	3	88		1.034	2.88	2.31	46.6	199.4	2.58	108	460	245	102	44
OH	11	1	88	61	1.455	.96	1.46	11.2	50.0	.45	16	73	43	15	7
OH	12	1	86	53	1.223	.96	1.22	13.1	50.0	.44	16	61	42	15	6
OH	13	2	84	68	2.084	1.92	2.08	22.2	75.0	1.27	46	156	121	44	15
OH	17	1	74	42	.609	.96	.61	30.0	40.0	.50	18	24	47	17	2
OH	18	1	85	48	.543	.96	.54	33.7	70.0	.50	18	38	48	17	4
OH	20	1	81	58	.440	.96	.44	52.5	100.0	.64	23	44	60	22	4
OH	Totals	7	84	58	6.354	6.72	6.35	21.8	62.4	3.80	138	397	361	131	38
GF	12	1	93	74	1.223	.96	2.45	12.0	55.0	.65	29	134	61	28	13
GF	26	1	89		.260	.96	.78	49.7	223.3	.85	39	175	81	37	17
GF	Totals	2	92	81	1.483	1.92	3.23	21.1	95.8	1.50	68	309	143	65	29
WL	16	1	90		.688	.96	1.38	23.3	105.0	1.02	32	144	97	30	14
WL	Totals	1	90		.688	.96	1.38	23.3	105.0	1.02	32	144	97	30	14
SS	10	1	76	45	1.761	.96	1.76	5.9	20.0	.27	10	35	26	10	3
SS	11	1	80	57	1.455	.96									
SS	21	1	88	85	.399	.96	.40	56.8	180.0	.59	23	72	56	22	7
SS	Totals	3	79	54	3.615	2.88	2.16	15.3	49.6	0.86	33	107	82	31	10
Totals		201	85	73	213.597	193.98	292.82	17.8	63.9	149.00	5225	18,701	14,155	4,963	1,777

T02N R08W S09 TSALE

T02N R08W S09 TSALE

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
02N	08W	09	AREA 1	SALE	33.00	14	86	S	W											
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									6-7	8-9	10-11	12+	12-20	21-30	31-35	36-99				
DF	C	2M		22	3.6	2,682	2,585	85									40	416	2.38	6.2
DF	C	3M		51	2.4	5,845	5,704	188	24	52	15	9					40	92	0.63	62.2
DF	C	4M		27	3.0	3,137	3,044	100					7	25	7	61	32	37	0.32	82.0
DF	Totals			57	2.8	11,664	11,332	373	39	26	8	28	2	7	2	90	36	75	0.56	150.4
RA	H	CL																	0.00	2.2
RA	H	B		4	5.0	190	180	6									32	181	1.66	1.0
RA	H	C		14	7.3	638	592	20									32	122	1.08	4.8
RA	H	D		82	9.2	3,801	3,452	114	64	36			12	26	38	24	26	39	0.47	88.1
RA	Totals			21	8.7	4,629	4,224	139	53	29	14	4	10	21	49	20	26	44	0.52	96.2
DL	C	3M		74	.6	1,735	1,725	57	11	43	33	13			14	86	38	120	0.76	14.3
DL	C	4M		26		581	581	19						45	12	43	31	31	0.31	18.9
DL	Totals			12	.4	2,316	2,306	76	33	32	25	10		11	13	76	34	69	0.53	33.2
WH	C	2M		18	2.0	240	235	8									40	235	1.55	1.0
WH	C	3M		34	7.3	483	448	15									38	79	0.56	5.7
WH	C	4M		48	2.0	634	621	20	71	29			18	5	29	49	27	45	0.39	13.7
WH	Totals			7	3.9	1,357	1,304	43	34	48		18	9	2	14	76	31	64	0.53	20.3
OH	H	D		100	8.4	423	387	13						47	25	28	30	63	0.79	6.1
OH	Totals			2	8.4	423	387	13						47	25	28	30	63	0.79	6.1
SS	C	4M		100		88	88	3									16	20	0.37	4.4
SS	Totals			0		88	88	3									16	20	0.37	4.4
WL	C	3M		85		309	309	10									40	180	0.94	1.7
WL	C	4M		15	25.0	69	52	2									16	30	0.55	1.7
WL	Totals			2	4.5	378	361	12		14	86		14		86		28	105	0.83	3.4
Type Totals					4.1	20,854	20,003	660	40	30	12	19	4	11	14	71	32	64	0.55	314.1

T02N R08W S16 TSALE T02N R08W S16 TSALE
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 02N 08W 16 AREA 2 AND 3 SALE 62.00 21 116 S W

Spp	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs Per /Acre					
								Net	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln	Bd	CF/Lf	
													6-7	8-9	10-11	12+	12-20	21-30		31-35				36-99
DF	C	2M	10	4.1	923	885	55										40	352	2.37	2.5				
DF	C	3M	54	2.4	4,831	4,716	292	34	39	24	3				13	87		39	88	0.61	53.6			
DF	C	4M	36	2.4	3,101	3,026	188	99	1	0				17	27	11	44	27	30	0.30	101.1			
DF	Totals		48	2.6	8,855	8,628	535	53	22	13	12			6	10	11	74	31	55	0.47	157.2			
RA	H	C	17	6.6	611	571	35										26	74		36	127	0.99	4.5	
RA	H	D	83	6.6	2,797	2,612	162	77	23					12	19	26	43	30	45	0.54	57.8			
RA	Totals		18	6.6	3,408	3,183	197	63	19	18				10	16	26	48	31	51	0.58	62.3			
WH	C	2M	3	2.0	150	147	9										40	392	3.15				.4	
WH	C	3M	79	2.9	3,035	2,947	183	6	15	44	34					6	94		38	150	1.02	19.6		
WH	C	4M	18	6.1	713	669	41	85	15					18	40	7	35	26	34	0.49	19.6			
WH	Totals		21	3.5	3,897	3,762	233	20	15	35	31			3	7	6	84	32	95	0.83	39.6			
OH	H	D	100	2.5	413	403	25									35	30	34	31	62	0.66	6.5		
OH	Totals		2	2.5	413	403	25									35	30	34	31	62	0.66	6.5		
NF	C	2M	55	2.0	425	416	26										40	588	3.08				.7	
NF	C	3M	43	2.0	335	328	20	15	11	55	19					34	66		36	120	0.90	2.7		
NF	C	4M	2	2.0	8	8	0										19	20	0.49				.4	
NF	Totals		4	2.0	767	752	46	8	5	24	64			1		15	84	35	195	1.34			3.8	
DL	C	2M	81	5.2	384	363	23										40	468	2.82				.8	
DL	C	3M	19		84	84	5	42			58					71	29		29	73	0.92	1.2		
DL	Totals		3	4.3	468	447	28	8			92					13	87	33	232	1.84			1.9	
GF	C	2M	42	5.7	230	217	13										40	500	2.59				.4	
GF	C	3M	48	2.0	244	239	15		75	25							32	97	0.67				2.5	
GF	C	4M	10	2.0	49	48	3										19	20	0.33				2.5	
GF	Totals		3	3.6	524	505	31	10	36	12	43			10		47	43	27	94	0.79			5.4	
SS	C	3M	100		120	120	7										40	180	1.42				.7	
SS	Totals		1		120	120	7										40	180	1.42				.7	
Type Totals				3.5	18,452	17,800	1,104	42	20	19	19			6	10	14	71	31	64	0.58			277.5	

TC		TLOGSTVB		Log Stock Table - MBF																			
				Project: MCKNYFLT																			
T02N R08W S09 TSALE										T02N R08W S09 TSAL													
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1														
02N	08W	09	AREA 1	SALE	33.00	14	86	Date	8/18/2009														
								Time	1:31:20PM														
Spp	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches														
									T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF	CO	2		40	89	3.6	85	22.8							17			38	31				
DF	CO	3		36	13	2.0	13	3.5				1	8		4								
DF	CO	3		40	180	2.4	175	46.9			7	36	90		24	4		4	10				
DF	CO	4		17	2	2.0	2	.5			2												
DF	CO	4		18	2	2.0	2	.5			2												
DF	CO	4		20	4	2.0	4	1.0			4												
DF	CO	4		23	1	2.0	1	.3				1											
DF	CO	4		24	4	2.0	4	1.0			4												
DF	CO	4		25	1	2.0	1	.2				1											
DF	CO	4		26	7	2.0	7	1.7			7												
DF	CO	4		27	5	2.0	5	1.3			5												
DF	CO	4		28	3	2.0	3	.7			3												
DF	CO	4		29	5	2.0	5	1.4			5												
DF	CO	4		34	7	2.0	7	1.9			7												
DF	CO	4		36	6	2.0	6	1.6			5	1											
DF	CO	4		37	3	2.0	3	.8			3												
DF	CO	4		39	7	2.0	7	1.9			7												
DF	CO	4		40	47	4.1	45	12.1			19	26											
DF	Totals				385	2.8	374	56.7			78	67	98		28	21		4	48	31			
RA	H		D																				
RA	H	2		32	6	5.0	6	4.3							6								
RA	H	3		32	21	7.3	20	14.0							20								
RA	H	4		15	2	5.0	2	1.6					2										
RA	H	4		16	7	5.0	7	4.9				7											
RA	H	4		17	2	5.0	2	1.3				2											
RA	H	4		20	3	5.0	3	2.0				3											
RA	H	4		21	7	5.0	6	4.6				6											
RA	H	4		22	7	5.0	6	4.5				6											
RA	H	4		23	8	5.0	7	5.3				7											
RA	H	4		24	3	5.0	2	1.8				2											
RA	H	4		26	6	22.1	4	3.1				4											
RA	H	4		29	6	52.5	3	2.0				3											
RA	H	4		32	35	7.3	33	23.4					33										
RA	H	4		34	4	5.0	4	2.5				4											
RA	H	4		35	7	5.0	7	4.9				7											
RA	H	4		39	4	5.0	4	3.0				4											
RA	H	4		40	25	7.8	23	16.7				18	6										
RA	Totals				153	8.7	139	21.1				73	41		20	6							
DL	CO	3		32	8		8	10.1					8										
DL	CO	3		40	50	.7	49	64.7				6	17		19	8							
DL	CO	4		22	2		2	2.9			2												
DL	CO	4		23	2		2	2.3			2												
DL	CO	4		29	1		1	1.7				1											
DL	CO	4		30	3		3	4.5			3												
DL	CO	4		31	2		2	2.9			2												
DL	CO	4		37	2		2	2.9			2												
DL	CO	4		40	6		6	8.0			6												
DL	Totals				76		76	11.5			18	7	24		19	8							

TC		TLOGSTVB		Log Stock Table - MBF																
				Project: MCKNYFLT																
T02N R08W S09 TSALE										T02N R08W S09 TSAL										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2											
02N	08W	09	AREA 1	SALE	33.00	14	86	Date	8/18/2009											
								Time	1:31:20PM											
Spp	T	S	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
									MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19
WH		CO	2	40	8	2.0	8	18.0						8						
WH		CO	3	36	7	14.2	6	13.7				6								
WH		CO	3	40	9	2.0	9	20.7				9								
WH		CO	4	15	2	2.0	2	3.9			2									
WH		CO	4	16	2	2.0	2	4.6			2									
WH		CO	4	26	1	2.0	1	2.3		1										
WH		CO	4	32	6	2.0	6	13.7				6								
WH		CO	4	40	10	2.0	10	23.2			10									
WH		Totals			45	3.9	43	6.5		1	14	21		8						
OH		H	4	25	6		6	47.0				6								
OH		H	4	35	4	12.5	3	24.6				3								
OH		H	4	40	4	16.7	4	28.4				4								
OH		Totals			14	8.4	13	1.9				13								
SS		CO	4	16	3		3	100.0			3									
SS		Totals			3		3	.4			3									
WL		CO	3	40	10		10	85.7				10								
WL		CO	4	16	2	25.0	2	14.3				2								
WL		Totals			12	4.5	12	1.8				2	10							
Total All Species					688	4.1	660	100.0		97	164	198	77	42	4	48	31			

Log Stock Table - MBF

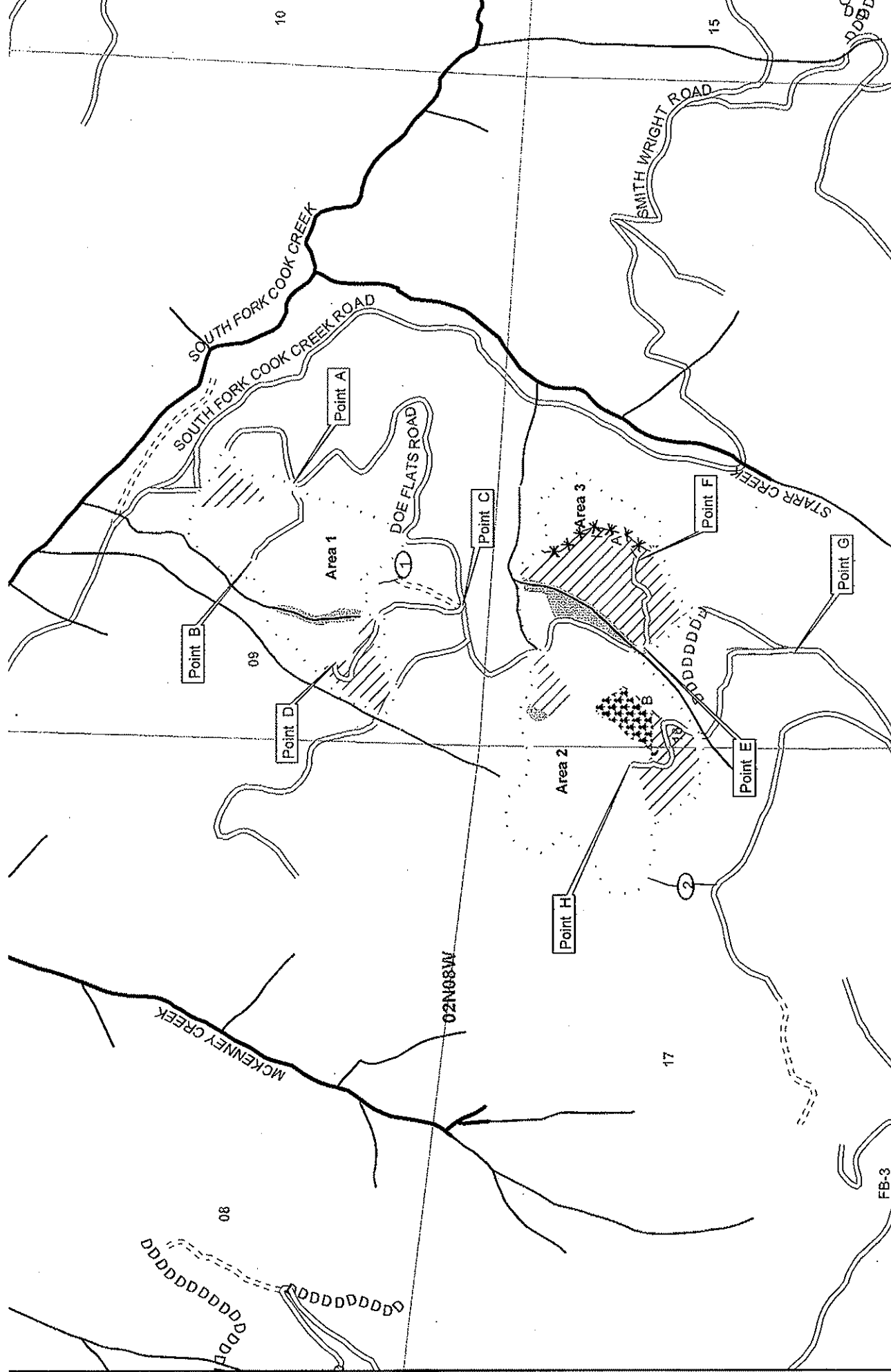
Project: MCKNYFLT

T02N R08W S16 TSALE

T02N R08W S16 TSAL

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 02N 08W 16 AREA 2 AND 3 SALE 62.00 21 116 Date 8/18/2009
 Time 1:33:56PM

Spp	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches												
									MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
WH	CO	4	17		2	2.0	2	.8			2										
WH	CO	4	19		1	2.0	1	.5			1										
WH	CO	4	20		2	2.0	2	.7			2										
WH	CO	4	21		5	2.0	4	1.9			4										
WH	CO	4	22		2	2.0	2	.9			2										
WH	CO	4	24		2	2.0	2	.8			2										
WH	CO	4	26		3	2.0	3	1.3			3										
WH	CO	4	29		5	2.0	5	2.3			5										
WH	CO	4	32		5	41.2	3	1.2			3										
WH	CO	4	40		15	2.0	15	6.3		1	7	6									
WH	Totals				242	3.5	233	21.1		1	46	34	81	26	25	21					
OH	H	4	26		6		6	25.3			6										
OH	H	4	28		3	20.0	3	10.1			3										
OH	H	4	32		8		8	30.2			8										
OH	H	4	38		9		9	34.5			9										
OH	Totals				26	2.5	25	2.3			25										
NF	CO	2	40		26	2.0	26	55.3							26						
NF	CO	3	32		7	2.0	7	15.0			3		4								
NF	CO	3	40		14	2.0	13	28.6			2	11									
NF	CO	4	19		0	2.0	0	1.0			0										
NF	Totals				48	2.0	47	4.2			4	2	11	4	26						
DL	CO	2	40		24	5.2	23	81.2							23						
DL	CO	3	22		3		3	10.9					3								
DL	CO	3	23		1		1	2.5			1										
DL	CO	3	40		1		1	5.4			1										
DL	Totals				29	4.3	28	2.5			2		3		23						
GF	CO	2	40		14	5.7	13	43.0							13						
GF	CO	3	32		15	2.0	15	47.4			11	4									
GF	CO	4	16		1	2.0	1	1.7			1										
GF	CO	4	20		3	2.0	2	7.9			2										
GF	Totals				32	3.6	31	2.8			3	11	4		13						
SS	CO	3	40		7		7	100.0					7								
SS	Totals				7		7	.7					7								
Total All Species					1,144	3.5	1,104	100.0		144	321	225	209	63	25	90	27				



LOGGING PLAN
 Timber Sale Contract No. 341-10-56
 McKenny Flats
 Portions of Sections 8, 16, and 17,
 T2N, R8W, W.M.,
 Tillamook County, Oregon

Tillamook District GIS
 8-17-2009
 This product is for informational use and may
 not have been prepared or suitable for
 legal enforcement or surveying purposes.

Type of		Acres	
Area	Operation	Gross	Net
1	Modified clearcut	34	33
2	Modified clearcut	62	56
3	Partial cut	6	6
Total		102	95

1,000 0 1,000 Feet

Legend:

- Rock source:** Rock source, Stock pile, Waste area, Bridge, Gate
- Buffer:** Non-required thinning, Cable yarding, Ground yarding, Helicopter yarding, Downhill yarding, Green tree retention area
- Area boundary:** Sale boundary, Ownership boundary, Perennial Type-F stream, Perennial Type-N stream, Unsurfaced road, Surfaced road, Paved road, Legacy road
- Roads:** Swing road, Non-project road, Blocked road, Road construction, OHV trail, Non-motorized trail, Transmission line, Railroad