



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Cost Summary Tucca Head Sale 341-06-054

District: Tillamook

Date: 11/8/05

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$255,885.10	\$0.00	\$255,885.10
		<b>Project Work</b>	\$0.00
		<b>Advertised Value</b>	\$255,885.10



# Timber Sale Appraisal Timber Description Tucca Head Sale 341-06-054

"STEWARDSHIP IN FORESTRY"

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**District:** Tillamook

**Location:** Portions of Sections 3 and 10, T3S, R7W,  
W.M., Tillamook County, Oregon.

**Date:** 11/8/05

**Stand Stocking:** 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	17	0	95

Volume by Grade	Douglas - Fir	Total
2S	271	271
3S	411	411
4S	13	13
Total	695	695

**Comments:** Pond Values Used: 3rd Quarter 2005.

TOTAL ROAD MAINTENANCE = \$21.30/MBF (ODF + BLM Maintenance)

Maintenance on ODF roads: \$2.72/MBF

Grading (\$2.52/MBF) + Surfacing (\$.20/MBF) = \$2.72/MBF

Grading: \$500/mile x 3.5 miles x 1 grading/695 MBF = \$2.52/MBF

Surfacing: 20cy/mile x \$ 2.81/cy x .695MMBF  
x 3.5 miles/695 MBF = \$0.20/MBF

Maintenance on BLM roads: \$18.58/MBF

Elk Creek to Gilbert Creek Haul Route

RD 3-7-27 = 5.3 miles x \$1.97/MBF/mile = \$10.44/MBF

RD 3-16-13 = 4.55 miles x \$0.55/MBF/mile = \$2.50/MBF

RD 4-7-22 = 5.2 miles x \$0.88/MBF/mile = \$4.58/MBF

RD 4-7-27 = 1.2 miles x \$0.88/MBF/mile = \$1.06/MBF

Other Costs (profit and risk added): \$1,615

Brand and Paint: \$2.00/MBF x 695MBF = \$1,390

Snag Creation: \$5/Snag x 45 snags = \$225

Other Costs (no profit and risk added): \$7,410

Trask Public Safety Road Fee: \$25/MBF x 285MBF = \$7,125

Block OHV Trail: (1) @ \$75 each = \$75

Alder Stumpage Value

\$326.87 = \$600 - \$273.13

RA Pond Value minus Douglas-fir logging cost

Western Red Cedar Stumpage Value:

\$541.87 = \$815 - \$273.13

WRC Pond Value minus Douglas-fir logging cost



# Timber Sale Appraisal

## Logging Conditions

### Tucca Head

### Sale 341-06-054

"STEWARDSHIP IN FORESTRY"

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<b>Combination#:</b> 1	Douglas - Fir	65.00%
<b>Yarding Distance:</b>	Short (400 ft)	<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Track Skidder	<b>Process:</b> Manual Falling/Delimiting
<b>Tree Size:</b>	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF	
<b>Loads/Day:</b>	8	<b>Bd. Ft./Load:</b> 3,500
<b>Cost/MBF:</b>	\$124.40	
<b>Machines:</b>	Log Loader (B) Track Skidder	
<b>Combination#:</b> 2	Douglas - Fir	35.00%
<b>Yarding Distance:</b>	Medium (800 ft)	<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Track Skidder	<b>Process:</b> Manual Falling/Delimiting
<b>Tree Size:</b>	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF	
<b>Loads/Day:</b>	6	<b>Bd. Ft./Load:</b> 3,500
<b>Cost/MBF:</b>	\$155.50	
<b>Machines:</b>	Log Loader (B) Track Skidder	



# Timber Sale Appraisal Logging Costs Tucca Head Sale 341-06-054

"STEWARDSHIP IN FORESTRY"

Date: 11/8/05

Operating Seasons: 2.0

Profit & Risk: 15%

Project Costs: \$0

Other Costs (P/R): \$1,615

Slash Disposal: \$0

Other Costs: \$7,410

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

Road Maintenance: \$21.30

### Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Logging Costs Breakdown Tucca Head Sale 341-06-054

Costs	Douglas - Fir
<b>Logging</b>	135.28
<b>Road Maintenance</b>	22.42
<b>Fire Protection</b>	7.80
<b>Hauling</b>	46.11
<b>Other (P/R appl.)</b>	2.32
<b>Profit &amp; Risk</b>	32.09
<b>Slash Disposal</b>	0.00
<b>Scaling</b>	2.00
<b>Other</b>	10.66
<b>Total</b>	258.68

<b>Amortization</b>	0.00
<b>Pond Value</b>	626.86
<b>Stumpage</b>	368.18
<b>Amortized</b>	0.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Summary Tucca Head Sale 341-06-054

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## Amortized

	Douglas - Fir
MBF	0.00
Value	0.00
Total	0.00

## Unamortized

	Douglas - Fir
MBF	695.00
Value	368.18
Total	255,885.10

## Gross Timber Sale Value

**Recovery \$255,885.10**

Prepared by: Don Everingham

Date: 11/8/05

District: Tillamook

Phone: (503) 842-2545



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

### Tucca Head

"STEWARDSHIP IN FORESTRY"

1. **Type of Sale:** Partial Cut Harvest – Recovery
2. **Legal Description:** Portions of Sections 3 and 10, T3S, R7W, W.M., Tillamook County, Oregon.
3. **Sale Acreage:** The sale boundary was plotted on a digital orthophotograph and the acreage was calculated with GIS.

Area	Harvest Type	Sale	Net
1	Partial Cut	53	45
2	Partial Cut	24	21
<b>Total</b>		77	66

Sale Acres

Area within the Timber Sale Boundary signs

Net acres for calculating the advertised volume

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

4. **Cruising Procedures:**

- A. **Cruise Method:** A total of 39 plots were taken. Cruise lines and plots were placed to obtain representative sampling intensities throughout the two sale areas. All trees and snags were recorded by diameter class. Diameters were measured to the nearest inch, heights to the nearest foot. Conifers less than 9" DBH and hardwoods less than 10" DBH were not sampled. Tree count by diameter and species was recorded on all plots and one tree per plot was measured to obtain volume to basal area (VBAR) and grade information.
- B. **Plot size:** A 40 BAF was used for conifers on all plots on both timber sale areas. A BAF of 10 was used for hardwoods in all areas. The point of tree observation was 4.5 feet.
- C. **Grading System:** Tree heights were measured to a 6" merchantable top for conifers and 8" for hardwoods. Douglas-fir was graded using Columbia River rules favoring a 40' log. Alder was graded to the top end diameter for determining sort while still favoring a 40' log. 2S equals 12" and greater, 3S equals 10" and 11", and 4S equals 8" and 9".



D. **Defect and Breakage**: A 5% defect and breakage reduction was applied to conifers and a 10% reduction to hardwood volumes.

E. **Cruiser Names / Dates**: South Unit staff, June 2005.

5. **Computation Procedures**: Plot data was entered into SuperAce for computation of stand tables. Take and leave trees were determined and SuperAce was rerun to compute basal area, V-BAR, stand tables and diameters. This data was entered into a volume summary worksheet to compute sale volumes.

6. **Timber Description**: The sale contains 53 and 54 year old Douglas-fir and scattered patches of red alder concentrated mainly in riparian areas. This will be a second entry thinning for Area 1.

7. **Revenue Distribution**:

100% FDF

Tax Code: 8

Deed Numbers: 194,295

28% Rehabilitation Obligated

8. **Appendices**:

- Volume Summary

- Logging Plan

# Tucca Head- Area 1

45 acres

DBH	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre	Hemlock Tk tr/acre	Hemlock Lv tr/acre	Alder Tk trs/acre	Alder Lv trs/acre
8"	0.0	0.0	0.0	0.0	0.0	0.0
9"	0.0	0.0	0.0	0.0	0.0	0.0
10"	0.0	0.0	0.0	1.4	0.0	0.0
11"	4.8	0.0	0.0	0.6	0.0	0.0
12"	3.9	0.0	0.0	0.5	0.0	0.0
13"	6.8	0.0	0.0	0.4	0.0	0.0
14"	2.9	0.0	0.0	0.4	0.0	0.0
15"	7.6	0.0	0.0	0.6	0.0	0.0
16"	6.6	0.0	0.0	0.0	0.0	0.0
17"	7.9	9.9	0.0	0.5	0.0	0.0
18"	7.8	3.5	0.0	1.1	0.0	0.0
19"	5.5	4.7	0.0	0.6	0.0	0.0
20"	3.5	3.5	0.0	0.4	0.0	0.0
21"	1.9	5.8	0.0	0.3	0.0	0.0
22"	1.2	5.2	0.0	0.1	0.0	0.0
23"	0.5	3.8	0.0	0.0	0.0	0.0
24"	1.0	4.9	0.0	0.1	0.0	0.0
26"	0.4	3.8	0.0	0.0	0.0	0.0
28"	0.4	2.2	0.0	0.0	0.0	0.0
30"	0.0	0.6	0.0	0.0	0.0	0.0
32"	0.0	0.0	0.0	0.0	0.0	0.0
34"	0.0	0.5	0.0	0.0	0.0	0.0
Total	62.8	48.3	0.0	7.0	0.0	0.0

## TOTAL STAND

BA/AC	Douglas-fir	Hemlock	Alder	total
Total	215	9	0	225
Leave	122	9	0	131
Take	94	0	0	94

	Douglas-fir	Hemlock
RD Total	50	2
RD Expected	26	2

Trees/acre	Douglas-fir	Hemlock	Alder
Total	111	7	0
Lv trs/ac	48	7	0
Tk trs/ac	63	0	0

	Douglas-fir	Hemlock	total
SDI Total	51	2	54
SDI Expected	27	2	31

QMD	Douglas-fir	Hemlock
Current QM Diameter	19	16
Leave Stand - QM Diameter	21	16
Take trees - QM Diameter	17	0

# Volume Relationships by Species

State	County	Project	Twn	Rng	Sec	Tract	Type No.	Acres
		TUCCAHD				Area 1		45.00

Item	Species						
	Total	DF	WH				
Total Gross Cunits	3.666	3,543	122				
Total Net Cunits	3.665	3,543	122				
Total Gross MBF	1.479	1,435	44				
Total Net MBF	1.477	1,433	44				
Total Tons	10.490	10,099	391				
BA / Acre	223.08	213.85	9.23				
Trees / Acre	120.712	113.364	7.348				
OM DBH	18.4	18.6	15.2				
Gross CuFt / Acre	8.146	7,874	271				
Net CuFt / Acre	8.145	7,874	271				
Net / Gross Ratio	1.000	1.000	1.000				
Gross BdFt / Acre	32.865	31,889	976				
Net BdFt / Acre	32.825	31,848	976				
Net / Gross Ratio	0.999	0.999	1.000				
Tons / Acre	233	224	9				
Logs Per Acre	227	217	10				
Avg Log Length	36.0	37.0	35.0				
Lineal Ft Per Acre	8,171	8,031	347				
G CuFt / SqFt BA	36.5	36.8	29.4				
N CuFt / SqFt BA	36.5	36.8	29.4				
G BdFt / SqFt BA	147.3	149.1	105.8				
N BdFt / SqFt BA	147.1	148.9	105.8				
Tons / SqFt BA	1.04	1.05	0.94				
G CuFt / G MBF	248	247	278				
N CuFt / N MBF	248	247	278				
G BdFt / G CuFt	4.03	4.05	3.60				
N Bdft / N CuFt	4.03	4.04	3.60				
Tons / G CCF	2.86	2.85	3.20				
Tons / G MBF	7.09	7.04	8.89				
Lbs / G CuFt	57.23	57.00	64.00				
Lbs / N BdFt	14.20	14.09	17.78				
N CuFt / Lineal Ft	1.00	0.98	0.78				
N BdFt / Lineal Ft	4.02	3.97	2.81				
Lbs / Lineal Ft	57.05	55.89	50.03				

## Tucca Head - Area 2

21 acres

DBH	Hemlock Tk tr/acre	Hemlock Lv tr/acre	Doug Tk tr/acre	Doug Lv tr/acre	Alder Tk trs/acre	Alder Lv trs/acre
8"	0.0	0.0	8.8	0.0	0.0	0.0
9"	0.0	0.0	7.2	0.0	0.0	0.0
10"	0.0	0.0	16.9	0.0	0.0	1.4
11"	0.0	0.0	19.1	0.0	0.0	2.4
12"	0.0	0.0	19.6	0.0	0.0	1.0
13"	0.0	0.0	6.8	0.0	0.0	0.0
14"	0.0	0.0	2.9	0.0	0.0	0.0
15"	0.0	0.0	2.5	0.0	0.0	0.6
16"	0.0	0.0	4.4	0.0	0.0	0.6
17"	0.0	0.0	5.9	0.0	0.0	0.5
18"	0.0	0.0	0.0	0.0	0.0	0.4
19"	0.0	0.4	0.0	0.0	0.0	0.0
20"	0.0	0.0	0.0	0.0	0.0	0.0
21"	0.0	0.0	1.3	0.0	0.0	0.0
22"	0.0	0.0	0.0	1.2	0.0	0.0
23"	0.0	0.0	0.0	1.1	0.0	0.0
24"	0.0	0.0	0.0	2.0	0.0	0.0
26"	0.0	0.0	0.0	4.2	0.0	0.0
28"	0.0	0.0	0.0	4.3	0.0	0.0
30"	0.0	0.0	0.0	3.1	0.0	0.0
32"	0.0	0.0	0.0	2.2	0.0	0.0
34"	0.0	0.0	0.0	3.4	0.0	0.0
Total	0.0	0.4	95.5	21.4	0.0	6.9

### TOTAL STAND

BA/AC	Hemlock	Doug	Alder	total
Total	1	169	6	176
Leave	1	95	6	102
Take	0	74	0	74

	Hemlock	Doug
RD Total	0	42
RD Expected	0	18

Trees/acre	Hemlock	Doug	Alder
Total	0	117	7
Lv trs/ac	0	21	7
Tk trs/ac	0	95	0

	Hemlock	Doug	total
SDI Total	0	43	45
SDI Expected	0	19	26

QMD	Hemlock	Doug	Alder
Current QM Diameter	19	16	13
Leave Stand - QM Diameter	19	29	13
Take trees - QM Diameter	0	12	0

# Volume Relationships by Species

State	County	Project	Twn	Rng	Sec	Tract	Type No.	Acres
		TUCCAHD				<i>Area 2</i>		20.00

Item	Species						
	Total	DF	RA				
Total Gross Cunits	225	149	76				
Total Net Cunits	225	149	76				
Total Gross MBF	88	55	33				
Total Net MBF	88	55	33				
Total Tons	633	424	209				
BA / Acre	61.49	41.24	20.25				
Trees / Acre	85.117	51.430	33.687				
OM DBH	11.5	12.1	10.5				
Gross CuFt / Acre	1,123	743	380				
Net CuFt / Acre	1,123	743	380				
Net / Gross Ratio	1.000	1.000	1.000				
Gross BdFt / Acre	4,407	2,746	1,661				
Net BdFt / Acre	4,407	2,746	1,661				
Net / Gross Ratio	1.000	1.000	1.000				
Tons / Acre	32	21	10				
Logs Per Acre	85	52	34				
Avg Log Length	28.5	32.0	25.0				
Lineal Ft Per Acre	2,434	1,655	842				
G CuFt / SqFt BA	18.3	18.0	18.8				
N CuFt / SqFt BA	18.3	18.0	18.8				
G BdFt / SqFt BA	71.7	66.6	82.0				
N BdFt / SqFt BA	71.7	66.6	82.0				
Tons / SqFt BA	0.51	0.51	0.52				
G CuFt / G MBF	255	271	229				
N CuFt / N MBF	255	271	229				
G BdFt / G CuFt	3.92	3.69	4.37				
N Bdft / N CuFt	3.92	3.69	4.37				
Tons / G CCF	2.82	2.85	2.75				
Tons / G MBF	7.18	7.72	6.29				
Lbs / G CuFt	56.32	57.00	55.00				
Lbs / N BdFt	14.36	15.43	12.58				
N CuFt / Lineal Ft	0.46	0.45	0.45				
N BdFt / Lineal Ft	1.81	1.66	1.97				
Lbs / Lineal Ft	25.99	25.60	24.81				



"STEWARDSHIP IN FORESTRY"

# Tucca Head

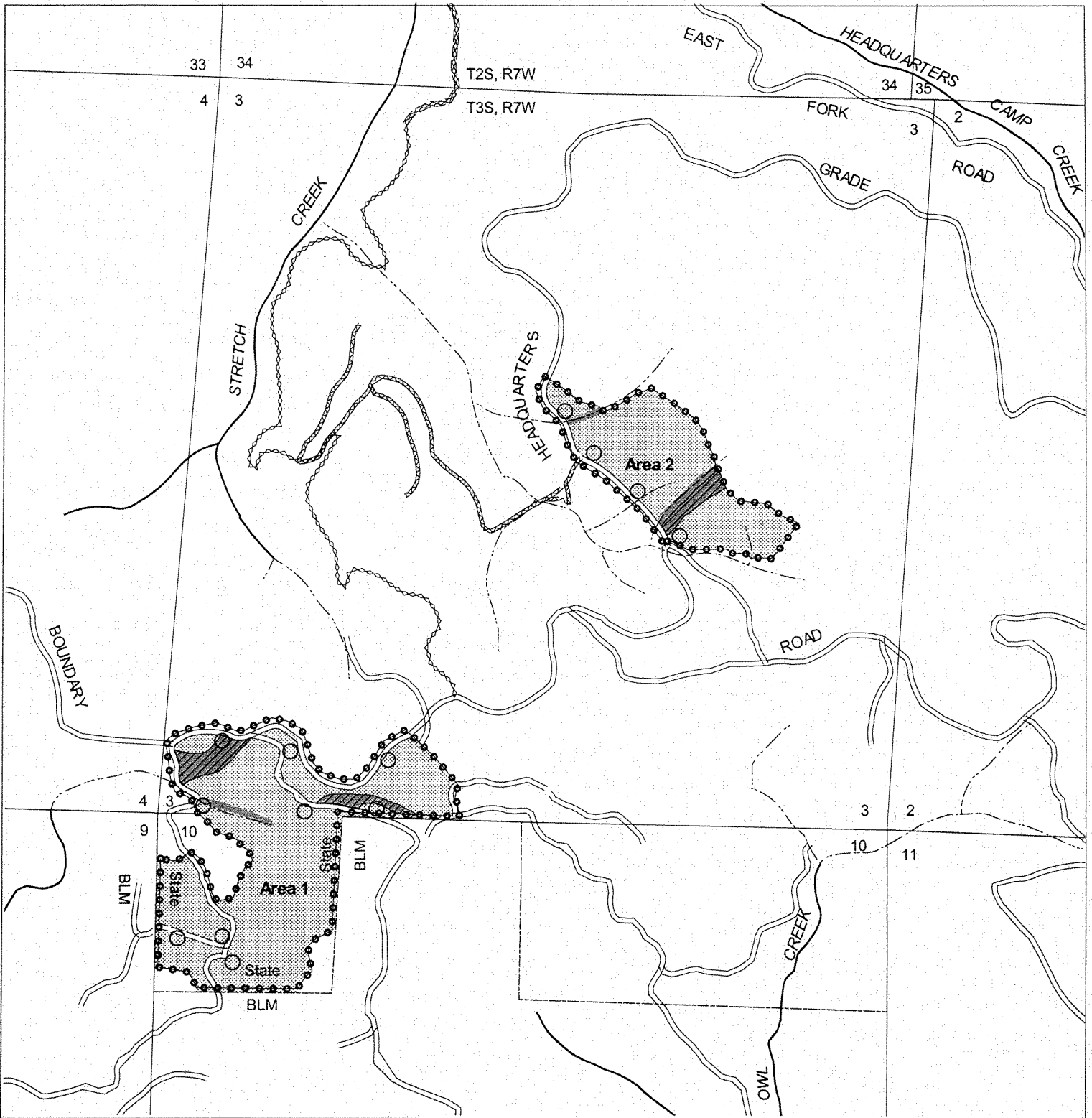
## Volume Summary

Area 1							
45 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	17	94	148	13.9	626	5%	595
<b>TOTAL</b>							595

Area 2							
21 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	74	67	5.0	105	5%	100
<b>TOTAL</b>							100

### Tucca Head Volume Summary

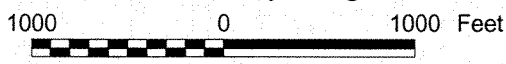
SPECIES	QMD	Net Vol. (MBF)
Douglas-fir	17	595
Douglas-fir	12	100
<b>TOTAL</b>		695



- Landing
- ▲ Domestic water supply
- ⊗ Blocked
- ▭ Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Downhill yarding
- ▤ Buffer
- ▦ Non-required thinning
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- Perennial Type-N stream
- ==== Surfacd road
- ==== Unsurfacd road
- ==== State highway
- ==== County road
- ② Non-project road
- Swing road
- Abandoned road
- OHV trail
- Non-motorized trail
- T T Transmission line

**LOGGING PLAN**  
 Timber Sale Contract No. 341-06-54  
 Tucca Head  
 Portions of Sections 3 and 10  
 T3S, R7W, W. M.  
 Tillamook County, Oregon

Area	Type of Operation	Acres	
		Sale	Net
1	Partial cut	53	45
2	Partial cut	24	21
<b>Total</b>		<b>77</b>	<b>66</b>



Tillamook District GIS  
 09-12-2005  
 This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

