



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Beaver Believer Thin
Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$543,250.72	\$0.00	\$543,250.72
		Project Work:	(\$67,744.00)
		Advertised Value:	\$475,506.72



Timber Sale Appraisal Beaver Believer Thin Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Timber Description

Location: Portions of Section 20, T11S, R09W, W.M. Lincoln County, Oregon

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	97

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	38	1,578	1,616
Total	38	1,578	1,616

Comments: Pond Values Used: Local Pond Values, May, 2022

Other Conifers Stumpage Price = Conifer Pulp price using a conversion factor of 10 ton/MBF = \$50.00/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
\$506.17/MBF = \$1,280/MBF - (\$623.83/MBF + \$150/MBF(Extra Haul Cost))

Red Alder Stumpage Price = Pond Value minus Logging Cost:
\$46.17/MBF = \$670.00/MBF - \$623.83/MBF

Bigleaf maple and Other Hardwoods Stumpage Price = Hardwood Pulp price using a conversion factor of 10 ton/MBF = \$25.00/MBF

PULP (Conifer and Hardwood Price) = \$5.00/TON

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

Intermediate Support/Tail Trees: 23 supports @ \$100/support = \$2,300

Artificial anchor (dead man): 4 anchors @ \$500/anchor = \$2,000

TOTAL Other Costs (with Profit & Risk to be added) = \$4,300

Other Costs (No Profit & Risk added):

Equipment Cleaning (Invasive Species): \$2,000

Water Bar and Block Dirt Roads: 25 Stations @ \$17.56/Station = \$439

Landing Slash piling: 7 Landings @ \$120/Landing = \$840

Landing Slash Piling and sorting out firewood: 11 Landings @ \$200/Landing = \$2,200

TOTAL Other Costs (No Profit & Risk added) = \$5,479

ROAD MAINTENANCE

Move-in: (Grader) \$875

Final Road Maintenance: \$18,106.10

TOTAL Road Maintenance: \$18,981.10/1,616MBF = \$11.75/MBF



Timber Sale Appraisal
Beaver Believer Thin
Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Logging Conditions

Combination#:	1	Douglas - Fir	26.57%
Logging System:	Cable: Large Tower >=70		Process: Stroke Delimber
yarding distance:	Short (400 ft)		downhill yarding: No
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
loads / day:	5.5		bd. ft / load: 3500
cost / mbf:	\$326.34		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Large)		
Combination#:	2	Douglas - Fir	70.75%
Logging System:	Cable: Large Tower >=70		Process: Stroke Delimber
yarding distance:	Medium (800 ft)		downhill yarding: No
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
loads / day:	5		bd. ft / load: 3500
cost / mbf:	\$358.97		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Large)		
Combination#:	3	Douglas - Fir	2.68%
Logging System:	Cable: Large Tower >=70		Process: Stroke Delimber
yarding distance:	Long (1,500 ft)		downhill yarding: No
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
loads / day:	4		bd. ft / load: 3500
cost / mbf:	\$448.71		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Large)		



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Beaver Believer Thin
Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Logging Costs

Operating Seasons: 3.00	Profit Risk: 12%
Project Costs: \$67,744.00	Other Costs (P/R): \$4,300.00
Slash Disposal: \$0.00	Other Costs: \$5,479.00

Miles of Road

Road Maintenance: \$11.75

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	2.0	3.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Beaver Believer Thin
Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$352.70	\$12.10	\$8.15	\$176.57	\$2.66	\$66.26	\$0.00	\$2.00	\$3.39	\$623.83

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$960.00	\$336.17	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Beaver Believer Thin
Sale WO-341-2023-W00993-01

District: West Oregon

Date: June 23, 2022

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,616	\$336.17	\$543,250.72

Gross Timber Sale Value

Recovery: \$543,250.72

Prepared By: Zane Sandborg

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Beaver Believer Thin

Date: July 2022

Time: 10:56

Project #1 - New Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	3.4 sta	\$1,615
C to D	5.9 sta	\$3,363
E to F	4.1 sta	\$1,347
Fuel Cost Increase (10%)		\$633
TOTALS	13.4 sta	\$6,958

Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
1 to 2	337.0 sta	\$12,369
C to 3	8.4 sta	\$128
4 to 5	3.8 sta	\$203
6 to 7	22.8 sta	\$7,096
12 to 13	21.1 sta	\$10,253
14 to 15	3.7 sta	\$2,925
16 to 17	3.5 sta	\$790
18 to 19	160.5 sta	\$13,184
Fuel Cost Increase (10%)		\$4,695
TOTALS	560.8 sta	\$51,643

Project #3 - Brushing

	<u>Length</u>	<u>Cost</u>
Brushing	1.68 mi	\$1,758
Sod and Brush Removal	1.68 mi	\$1,366
Fuel Cost Increase (10%)		\$312
TOTAL		\$3,436

Project #4 - Move in

	<u>Cost</u>
Excavator, C325 or equiv.	\$1,450
(extra move-in cost)	\$150
Grader, Cat 14-G or equiv.	\$875
(extra move-in cost)	\$30
Dozer, D6 or equiv.	\$875
(extra move-in cost)	\$130
Vibratory roller	\$875
(extra move-in cost)	\$25
Road brusher	\$778
Fuel Cost Increase (10%)	\$519
TOTAL	\$5,707

GRAND TOTAL

\$67,744

Compiled by: Zane Sandborg

Date

07/25/2022

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Thin Project # 1 LENGTH const 3.4 sta
ROAD A to B

CLEARING AND GRUBBING

Road and Landing 0.2 ac @ Rate \$1,337.00 /ac = \$267

TOTAL CLEARING AND GRUBBING COST = \$267

EXCAVATION

Construct road 3.4 sta @ Rate \$138.00 /sta = \$469
Construct landing 1 ldg @ \$438.00 /ldg = \$438
Shape subgrade 3.4 sta @ \$20.63 /sta = \$70
(with road grader)
Compact subgrade 3.4 sta @ \$16.00 /sta = \$54
(with vibratory roller)

TOTAL EXCAVATION COST = \$1,031

SURFACING

Transition rock 10 CY Size Jaw-Run @ Rate \$29.93 /CY = \$299
(Sta. 0+00 to 0+50)
Process surface (Sta. 0+00 to 0+50) 0.5 sta @ \$20.63 /sta = \$10
(with road grader)
Compact surface (Sta. 0+00 to 0+50) 0.5 sta @ \$16.00 /sta = \$8
(with vibratory roller)

TOTAL ROCK COST = \$317

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$1,615

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Thin Project # 1 LENGTH const 5.9 sta
ROAD C to D

CLEARING AND GRUBBING

Road and Landing 0.42 ac @ Rate \$1,337.00 /ac = \$562

TOTAL CLEARING AND GRUBBING COST = \$562

EXCAVATION

Construct road (balanced) 3.1 sta @ Rate \$138.00 /sta = \$428
Construct road (drift) 2.8 sta @ \$214.00 /sta = \$599
Curve widening (w/ dozer) 2 hrs @ \$128.00 /hr = \$256
(Sta. 0+00 to Sta. 1+15)
Construct Landing 2 ldgs @ \$438.00 /ldgs = \$876
(Sta. 1+15 & Pt. D)
Waste area compaction 130 CY @ \$0.45 /CY = \$59
(exp. 20%)
Construct turnaround (w/ dozer) 1 TA @ \$50.00 /TA = \$50
(Sat.3+60)
Shape subgrade 5.9 sta @ \$20.63 /sta = \$122
(with road grader)
Compact subgrade 5.9 sta @ \$16.00 /sta = \$94
(with vibratory roller)

TOTAL EXCAVATION COST = \$2,484

SURFACING

Transition rock 10 CY Size Jaw-Run @ Rate \$29.93 /CY = \$299
(Sta. 0+00 to 0+50)
Process surface (Sta. 0+00 to 0+50) 0.5 sta @ \$20.63 /sta = \$10
(with road grader)
Compact surface (Sta. 0+00 to 0+50) 0.5 sta @ \$16.00 /sta = \$8
(with vibratory roller)

TOTAL ROCK COST = \$317

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$3,363

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Thin Project # 1 LENGTH const 4.1 sta
ROAD E to F

CLEARING AND GRUBBING

Road and Landings 0.28 ac @ Rate \$1,337.00 /ac = \$374

TOTAL CLEARING AND GRUBBING COST = \$374

EXCAVATION

Construct road 4.1 sta @ Rate \$138.00 /sta = \$566
Construct landing (w/ dozer) 2 hrs @ \$128.00 /hr = \$256
Shape subgrade 4.1 sta @ \$20.63 /sta = \$85
(with road grader)
Compact subgrade 4.1 sta @ \$16.00 /sta = \$66
(with vibratory roller)

TOTAL EXCAVATION COST = \$973

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$1,347

SUMMARY OF CONSTRUCTION COST

SALE	Beaver Believer Thin	Project #	2	LENGTH	improve	337.0 sta
ROAD	1 to 2	Deer Creek, Baber Ridge and So. Beaver Roads.				

IMPROVEMENT

		<u>Rate</u>				
Daylight road cutting (Sta. 259+40 to Sta. 262+60 and Pt. 12 to Pt. 2)	2 hrs	@ \$45.00	/hr	=		\$90
Daylight road clearing (w/ C325) (Sta. 259+40 to Sta. 262+60) and Pt. 12 to Pt. 2)	3 hrs	@ \$145.00	/hr	=		\$435
Establish ditch (w/ grader) (Sta. 315+15 to Pt. C)	1.2 sta	@ \$44.00	/sta	=		\$53
Process surface (w/ grader) (Spot rock and Sta. 269+45 to 330+10)	68.0 sta	@ \$20.63	/sta	=		\$1,403
Compact surface (w/ roller) (Spot rock and Sta. 269+45 to 330+10)	68.0 sta	@ \$16.00	/sta	=		\$1,088

TOTAL IMPROVEMENT COST = \$3,069

SURFACING

		<u>Size</u>	<u>Cost/yd</u>			
Spot rock	220 CY	1½"-0"	@ \$32.29	/CY	=	\$7,104
Landing rock (Sta. 330+10)	40 CY	Jaw-Run	@ \$29.93	/CY	=	\$1,197

TOTAL ROCK COST = \$8,301

SPECIAL PROJECTS

		<u>Size</u>	<u>Rate</u>			
Install culvert (w/C325)	1.5 hrs		@ \$145.00	/hr	=	\$218
Culvert 18"x30' (Sta. 315+15)	30 ft		@ \$13.75	/ft	=	\$413
Bedding compaction	1 hr		@ \$45.00	/hr	=	\$45
Bedding & backfill rock	10 CY	1½"-0"	@ \$32.29	/CY	=	\$323

TOTAL SPECIAL PROJECTS COST = \$999

Compiled by:	Zane Sandborg
Date:	Jul 25, 2022

GRAND TOTAL =====> \$12,369

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Thin Project # 2 LENGTH improve 8.4 sta
ROAD C to 3

IMPROVEMENT

Re-open landing (w/ dozer) 1 hr @ Rate \$128.00 /hr = \$128

TOTAL IMPROVEMENT COST = \$128

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$128

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Beaver Believer Thin 4 to 5	Project #	2	LENGTH	improve	3.8 sta
-----------	--------------------------------	-----------	---	--------	---------	---------

IMPROVEMENT

			<u>Rate</u>			
Re-open road (w/ dozer)	3.8 sta	@	\$36.67	/sta	=	\$139
Re-open landing (Pt. 5)	0.5 hrs	@	\$128.00	/hr	=	\$64

TOTAL IMPROVEMENT COST = \$203

Compiled by:	Zane Sandborg
Date:	Jul 25, 2022

GRAND TOTAL =====> \$203

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Project # 2 LENGTH const 22.8 sta
ROAD 6 to 7

EXCAVATION

			<u>Rate</u>			
Cut slope rounding (w/ C325)	4.0 sta	@	\$49.00	/sta	=	\$196
(From Pt. 8 to Sta. 12+85)						
End haul slope material (exp 20%)	20 CY	@	\$2.00	/CY	=	\$40
TOTAL EXCAVATION COST =						\$236

IMPROVEMENT

			<u>Rate</u>			
Daylight road cutting	3 hrs	@	\$45.00	/hr	=	\$135
Daylight road clearing (w/ C325)	2 hrs	@	\$145.00	/hr	=	\$290
Process surface	22.8 sta	@	\$20.63	/sta	=	\$470
(with road grader)						
Compact surface	22.8 sta	@	\$16.00	/sta	=	\$365
(with vibratory roller)						
TOTAL IMPROVEMENT COST =						\$1,260

SURFACING

		<u>Size</u>		<u>Rate</u>		
Spot rock	90 CY	1½"-0"	@	\$32.29	/CY	= \$2,906
Landing rock	90 CY	Jaw-Run	@	\$29.93	/CY	= \$2,694
(Sta. 12+85 & 21+15)						
TOTAL ROCK COST =						\$5,600

Compiled by: Zane Sandborg
Date: May 2, 2022

GRAND TOTAL =====> \$7,096

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Beaver Believer Thin 12 to 13	Project #	2	LENGTH	improve	21.1 sta
--------------	----------------------------------	-----------	---	--------	---------	----------

EXCAVATION

			<u>Rate</u>			
Widen curve (w/C325) (Pt. 12)	1 hr	@	\$145.00 /hr	=		\$145
Excavate road berm (w/C325) (Sta. 5+70)	1 hr	@	\$145.00 /hr	=		\$145
End haul berm material (exp 20%)	20 CY	@	\$2.00 /CY	=		\$40
Cut slope rounding (w/ C325) (Pt. 14 to Sta. 15+80)	4 sta	@	\$49.00 /sta	=		\$196
End haul slope material (exp 20%)	20 CY	@	\$2.00 /CY	=		\$40
Shape subgrade (with road grader)	0.5 sta	@	\$20.63 /sta	=		\$10
Compact subgrade (with vibratory roller)	0.5 sta	@	\$16.00 /sta	=		\$8

TOTAL EXCAVATION COST= \$584

IMPROVEMENT

			<u>Rate</u>			
Daylight road cutting	2 hrs	@	\$45.00 /hr	=		\$90
Daylight road clearing (w/ C325)	2 hrs	@	\$145.00 /hr	=		\$290
Process surface (Sta. 0+00 to 0+50) (with road grader)	21.1 sta	@	\$20.63 /sta	=		\$435
Compact surface (Sta. 0+00 to 0+50) (with vibratory roller)	21.1 sta	@	\$16.00 /sta	=		\$338

TOTAL IMPROVEMENT COST= \$1,153

SURFACING

		<u>Size</u>		<u>Rate</u>		
Spot rock	50 CY	1½"-0"	@	\$32.29 /CY	=	\$1,615
Curve widening rock (Sta. 0+00)	40 CY	3"-0"	@	\$30.94 /CY	=	\$1,238
Shape & compact surface (Sta. 0+00 to 0+50)	0.5 sta		@	\$36.63 /sta	=	\$18
Landing rock (Sta. 0+90)	20 CY	3"-0"	@	\$30.94 /CY	=	\$619
Landing rock (Sta. 5+70, 7+85, 15+80 & Pt. 13)	90 CY	Jaw-Run	@	\$29.93 /CY	=	\$2,694
Traction rock (Sta. 7+85 to Pt. 13)	60 CY	¾"-0"	@	\$32.29 /CY	=	\$1,937
Compact surface (Sta. 7+85 to Pt. 13)	6 sta		@	\$16.00 /sta	=	\$96
Surface widening rock (Sta. 11+70/Pt. 14)	10 CY	Jaw-Run	@	\$29.93 /CY	=	\$299

TOTAL ROCK COST = \$8,516

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$10,253

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Beaver Believer Thin 14 to 15	Project #	2	LENGTH improve	3.7 sta
-----------	----------------------------------	-----------	---	----------------	---------

EXCAVATION

		<u>Rate</u>			
Re-construct Landing (w/C325) (Pt. 15)	0.5 hrs	@ \$145.00 /hr	=		\$73
Shape subgrade (Pt. 15) (with road grader)	0.5 sta	@ \$20.63 /sta	=		\$10
Compact subgrade (Pt. 15) (with vibratory roller)	0.5 sta	@ \$16.00 /sta	=		\$8
TOTAL CONSTRUCTION COST =					\$91

IMPROVEMENT

		<u>Rate</u>			
Re-open road (w/ grader)	3.7 sta	@ \$15.40 /sta	=		\$57
Re-open landing (w/ grader) (Sta. 1+80)	0.5 hrs	@ \$114.00 /hr	=		\$57
Daylight road cutting	0.5 hrs	@ \$45.00 /hr	=		\$23
Daylight road clearing (w/ C325)	0.5 hrs	@ \$145.00 /hr	=		\$73
TOTAL IMPROVEMENT COST =					\$210

SURFACING

		<u>Size</u>	<u>Rate</u>			
Surface rock (2" lift)	40 CY	1½"-0"	@ \$32.29 /CY	=		\$1,292
Landing rock (Sta. 1+80 & Pt. 15)	40 CY	Jaw-Run	@ \$29.93 /CY	=		\$1,197
Process surface (with road grader)	3.7 sta		@ \$20.63 /sta	=		\$76
Compact surface (with vibratory roller)	3.7 sta		@ \$16.00 /sta	=		\$59
TOTAL ROCK COST =						\$2,624

Compiled by:	Zane Sandborg
Date:	Jul 25, 2022

GRAND TOTAL =====> \$2,925

SUMMARY OF CONSTRUCTION COST

SALE Beaver Believer Thin Project # 2 LENGTH improve 3.5 sta
ROAD 16 to 17

CLEARING AND GRUBBING

			<u>Rate</u>		
Landing	0.06 ac	@	\$1,337.00 /ac	=	\$80
TOTAL CLEARING AND GRUBBING COST =					\$80

EXCAVATION

			<u>Rate</u>		
Re-open Landing (w/ dozer) (Pt. 17)	1 hr	@	\$128.00 /hr	=	\$128
TOTAL EXCAVATION COST =					\$128

IMPROVEMENT

			<u>Rate</u>		
Re-open road (w/ dozer)	3.5 sta	@	\$36.37 /sta	=	\$127
Shape subgrade (with road grader)	3.5 sta	@	\$20.63 /sta	=	\$72
Compact subgrade (with vibratory roller)	3.5 sta	@	\$16.00 /sta	=	\$56
TOTAL IMPROVEMENT COST =					\$255

SURFACING

		<u>Size</u>	<u>Rate</u>		
Transition rock (Sta. 0+00 to 0+50)	10 CY	3"-0"	@ \$30.94 /CY	=	\$309
Process surface (Sta. 0+00 to 0+50) (with road grader)	0.5 sta		@ \$20.63 /sta	=	\$10
Compact surface (Sta. 0+00 to 0+50) (with vibratory roller)	0.5 sta		@ \$16.00 /sta	=	\$8
TOTAL ROCK COST =					\$327

Compiled by: Zane Sandborg
Date: Jul 25, 2022

GRAND TOTAL =====> \$790

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Beaver Believer Thin 18 to 19	Project #	2	LENGTH	improve	160.5 sta
-----------	----------------------------------	-----------	---	--------	---------	-----------

EXCAVATION

			<u>Rate</u>			
Construct waste area (w/ C325) (Sta. 133+05)	0.5 hr	@	\$145.00 /hr	=		\$73
Road widening (w/ C325) (Sta. 137+30 to 138+00 & Sta. 140+80 to 143+00)	2 hr	@	\$145.00 /hr	=		\$290
Cutslope toe cleanout (w/ C325) (Sta. 143+00 to Pt. 19)	5 hr	@	\$145.00 /hr	=		\$725
Widening end haul (exp 20%)	110 CY	@	\$2.50 /CY	=		\$275
Fill compaction (Sta. 138+00)	0.5 sta	@	\$16.00 /sta	=		\$8
Waste material compaction	110 CY	@	\$0.45 /CY	=		\$50

TOTAL EXCAVATION COST = \$1,421

IMPROVEMENT

			<u>Rate</u>			
Remove sod (w/ grader) (Sta. 0+00 to 152+70)	152.7 sta	@	\$15.40 /sta	=		\$2,352
Reopen road (w/ grader) (Sta. 152+70 to Pt. 19)	8 sta	@	\$15.40 /sta	=		\$123
Shape subgrade (with road grader)	8 sta	@	\$20.63 /sta	=		\$165
Compact subgrade (with vibratory roller)	8 sta	@	\$16.00 /sta	=		\$128
Process surface (w/ grader) (Sta. 128+45 to 152+70)	24.0 sta	@	\$20.63 /sta	=		\$495
Compact surface (w/ roller) (Sta. 128+45 to 152+70)	24.0 sta	@	\$16.00 /sta	=		\$384

TOTAL IMPROVEMENT COST = \$3,647

SURFACING

		<u>Size</u>	<u>Rate</u>			
Culvert spot rock (Sta. 7+10, 8+30, 20+75, 62+20, 83+50, 104+60, 114+65)	70 CY	1½"-0"	@	\$37.78 /CY	=	\$2,645
Grade and compact culvert rock	7 sta		@	\$36.63 /sta	=	\$256
Spot rock (Sta. 128+45 to 152+70)	100 CY	1½"-0"	@	\$37.78 /CY	=	\$3,778
Turnout rock (Sta. 138+00)	20 CY	Jaw-Run	@	\$35.42 /CY	=	\$708
Landing rock (Sta. 149+05)	20 CY	3"-0"	@	\$36.43 /CY	=	\$729

TOTAL ROCK COST = \$8,116

Compiled by:
Date:

Zane Sandborg
Jul 25, 2022

GRAND TOTAL =====> \$13,184

SUMMARY OF BRUSHING COST

SALE Beaver Believer Thin Project # 3 LENGTH maintain 1.68 Miles
ROAD All (Surfaced/unsurfaced)

LIGHT BRUSHING

			<u>Rate</u>			
Pt. 6 to Pt. 7	0.43 mi	@	\$800.00 /mi	=	\$344	
Pt. 8 to Pt. 9	0.06 mi	@	\$800.00 /mi	=	\$48	
Pt. 10 to Pt. 11	0.04 mi	@	\$800.00 /mi	=	\$32	
TOTAL LENGTH = 0.53 mi		TOTAL LIGHT BRUSHING COST =				\$424

MEDIUM BRUSHING

			<u>Rate</u>			
Pt. C to Pt. 2	0.39 mi	@	\$1,100.00 /mi	=	\$429	
Pt. 12 to Pt. 13	0.40 mi	@	\$1,100.00 /mi	=	\$440	
Pt. 14 to Pt. 15	0.07 mi	@	\$1,100.00 /mi	=	\$77	
Pt. 16 to Pt. 17	0.06 mi	@	\$1,100.00 /mi	=	\$66	
TOTAL LENGTH = 0.92 mi		TOTAL MEDIUM BRUSHING COST =				\$1,012

HEAVY BRUSHING

			<u>Rate</u>			
Pt. C to Pt. 3	0.16 mi	@	\$1,400.00 /mi	=	\$224	
Pt. 4 to Pt. 5	0.07 mi	@	\$1,400.00 /mi	=	\$98	
TOTAL LENGTH = 0.23 mi		TOTAL HEAVY BRUSHING COST =				\$322

BRUSHING GRAND TOTAL =====> \$1,758

SOD AND DEBRIS REMOVAL

			<u>Rate</u>			
All brushing segments	1.68 mi	@	\$813.12 /mi	=	\$1,366	
TOTAL LENGTH = 1.68 mi		TOTAL SOD AND DEBRIS REMOVAL =====>				\$1,366

Compiled by: Zane Sandborg
Date: Jul 25, 2022

SUMMARY OF MAINTENANCE COST

SALE	Beaver Believer Thin	Final log haul Maintenance Cost Estimate (Costed in appraisal, not in project costs)
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Move-in	Grader	\$	875
---------	--------	----	-----

Road Segment	Length	Cost/Sta	Cost	Mileage
1 to 2	200.0	\$20.63	\$4,126.00	3.79
6 to 7	22.8	\$20.63	\$470.36	0.43
12 to 13	21.1	\$20.63	\$435.29	0.40
14 to 15	3.7	\$20.63	\$76.33	0.07
18 to 19	160.5	\$20.63	\$3,311.12	3.04
Total	408.1		\$8,419.10	7.73

Maintenance Rock:

	Volume	Cost/CY	Cost
1½"-0"	300	\$32.29	\$9,687.00

Grand Total	\$18,981.10
-------------	-------------

TS Volume 1,616 MBF

Cost / MBF = \$11.75

NOTES:

Rock Haul Cost Computation

SALE NAME: Beaver Believer
ROAD NAME: South Beaver Road
ROCK SOURCE: Rickard Rock Quarry
Route: Hwy 20, Deer Creek Road,
Baber Ridge Road, South Beaver Road

DATE: Jul 25, 2022
CLASS: Medium
10 CY truck

TIME Computation:

Road speed time factors:

1.	55 MPH	40.6	MRT	44.3 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	11.6	MRT	34.8 minutes
9.	15 MPH	2.0	MRT	8.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT	0.50	minutes
----------------------------	------	---------

Total hauling cycle time for this setting (100% efficiency)	87.60 minutes
--	---------------

Operator efficiency correction	0.85	103.06 minutes
--------------------------------	------	----------------

Job efficiency correction	0.90	114.51 minutes
---------------------------	------	----------------

Truck capacity (CY)	10.00	11.45	min/CY
---------------------	-------	-------	--------

Loading time, delay time per CY	0.25	min/CY
---------------------------------	------	--------

TIME (minutes) per cubic yard	11.70	min/CY
-------------------------------	-------	--------

COST per CY computation

Cost of truck and operator per hour	\$105.00	/hr.
-------------------------------------	----------	------

Cost of truck and operator per minute	\$1.75 /min
---------------------------------------	-------------

Cost per CY	\$20.48 /CY
-------------	-------------

Spread and compact	Water truck, Grader & Roller	\$1.50 /CY
--------------------	------------------------------	------------

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
3/4"-0"	\$ 11.81	\$32.29	\$33.79
1½" - 0"	\$ 11.81	\$32.29	\$33.79
3" - 0"	\$ 10.46	\$30.94	\$32.44
Jaw-Run	\$ 9.45	\$29.93	\$31.43
Pit-Run	\$ 7.76	\$28.24	\$29.74
Riprap	\$ 24.98	\$45.46	\$46.96

Note: Pit costs March, 2020 Rickard Rock Quarry
Riprap costs November, 2020 Hardrock Rock Quarry

Rock Haul Cost Computation

SALE NAME: Beaver Believer Thin
ROAD NAME: Updyke Road
ROCK SOURCE: Rickard Rock Quarry
Route: Hwy 20, Elk City Road,

DATE: Jul 25, 2022
CLASS: Medium
10 CY truck

TIME Computation:

Road speed time factors:

1.	55 MPH	51.6	MRT	56.3 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH	21.4	MRT	42.8 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH		MRT	0.0 minutes
9.	15 MPH	3.0	MRT	12.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT	0.50	minutes
----------------------------	------	---------

Total hauling cycle time for this setting (100% efficiency)	111.60 minutes
--	----------------

Operator efficiency correction	0.85	131.29 minutes
--------------------------------	------	----------------

Job efficiency correction	0.90	145.88 minutes
---------------------------	------	----------------

Truck capacity (CY)	10.00	14.59	min/CY
---------------------	-------	-------	--------

Loading time, delay time per CY	0.25 min/CY
---------------------------------	-------------

TIME (minutes) per cubic yard	14.84	min/CY
-------------------------------	-------	--------

COST per CY computation

Cost of truck and operator per hour	\$105.00 /hr.
-------------------------------------	---------------

Cost of truck and operator per minute	\$1.75 /min
---------------------------------------	-------------

Cost per CY	\$25.97 /CY
-------------	-------------

Spread and compact	Water truck, Grader & Roller	\$1.50 /CY
--------------------	------------------------------	------------

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
3/4"-0"	\$ 11.81	\$37.78	\$39.28
1½" - 0"	\$ 11.81	\$37.78	\$39.28
3" - 0"	\$ 10.46	\$36.43	\$37.93
Jaw-Run	\$ 9.45	\$35.42	\$36.92
Pit-Run	\$ 7.76	\$33.73	\$35.23
Riprap	\$ 24.98	\$50.95	

Note: Pit costs March, 2020 Rickard Rock Quarry
Riprap costs November, 2020 Hardrock Rock Quarry

Rock Haul Cost Computation

SALE NAME: Beaver Believer

DATE: Jul 25, 2022

ROAD NAME: South Beaver Road

CLASS: Medium

ROCK SOURCE: Rickard Rock Quarry

18 CY truck

Route: Hwy 20, Deer Creek Road,
Baber Ridge Road, South Beaver Road

TIME Computation:

Road speed time factors:

1.	55 MPH	40.6	MRT	44.3 minutes
2.	50 MPH		MRT	0.0 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	11.6	MRT	34.8 minutes
9.	15 MPH	2.0	MRT	8.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT 0.50 minutes

Total hauling cycle time for this setting
(100% efficiency) 87.60 minutes

Operator efficiency correction 0.85 103.06 minutes

Job efficiency correction 0.90 114.51 minutes

Truck capacity (CY) 18.00 6.36 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 6.61 min/CY

COST per CY computation

Cost of truck and operator per hour \$114.00 /hr.

Cost of truck and operator per minute \$1.90 /min

Cost per CY \$12.56 /CY

Spread and compact Water truck, Grader & Roller \$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½" - 0"	\$ 11.81	\$24.37	\$25.87
3" - 0"	\$ 10.46	\$23.02	\$24.52
Jaw-Run	\$ 9.45	\$22.01	\$23.51
Pit-Run	\$ 7.76	\$20.32	\$21.82

Note: Pit costs March, 2020 Rickard Rock Quarry

TIMBER CRUISE REPORT

Beaver Believer Thin (WO-341-2023-W00993-01) FY 2023

1. **Sale Area Location:** Portions of Sections 20, T11S, R9W, W.M. Lincoln County, Oregon.

2. **Fund Distribution:**

a. **Fund** BOF 100%
 CSL 0%

3. **Sale Acreage by Area:**

Unit	Treatment	Gross Acres	Stream Buffers	Existing Roads	Non-Thinnable Acres	Net Sale Acres	Acreage Comp. Method
1	Partial Cut	98	8	2	1	87	GIS
2	Partial Cut	107	6	2	<1	99	GIS
Total		205	14	4	1	186	

4. **Cruisers and Cruise Dates:** This sale was cruised by Zane Sandborg, Jessica Westcott and Cody Valencia in May of 2022.

5. **Cruise Method and Computation:** The sale consists of two Partial Cut units that were cruised using variable radius plot sampling. The timber sale area was cruised using a basal area factor of 20. Plots were spaced on a 5x6 chain grid for both Units. On Unit 1, a total of 30 plots were taken: 21 measure plots and 9 count plots. On Unit 2, a total of 33 plots were taken: 20 measure plots and 13 count plots.

Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury Super ACE cruise program to determine stand statistics and net board foot volume. Volume was removed to account for hidden defect and breakage. Volume was added to account for tree removal in Rights-of-Way and Cable Corridors.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcPro GIS was used to determine gross and net acreage.

6. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or to 40% of form factor. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40 foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.

7. **Timber Description:** Timber is primarily 37 year-old Douglas-fir for Unit 1 and 33-year old Douglas-fir for Unit 2. All Units possess small amounts of bigleaf maple, red alder and Western redcedar. For Unit 1 the average Douglas-fir to be removed is approximately 12 inches DBH, with an average height of 48 feet to a merchantable top. For Unit 2, the average Douglas-fir to be removed is approximately 11 inches DBH, with an average height of 46 feet to a merchantable top. The average volume per acre to be harvested (net) is approximately 8.2 MBF for Unit 1 and 9.0 MBF for Unit 2. Conifer trees other than Douglas-fir are reserved from cutting, unless present in yarding corridors, Landings or between R/W tags.

8. **Statistical Analysis and Stand Summary:** (See attached "Statistics").

Unit	Target CV	Target SE	Actual CV	Actual SE
1	40%	13%	26.1%	4.8%
2	40%	13%	24.6%	4.3%

Note: Statistics shown are for conifer and hardwood trees combined. Percentages are for net board foot volume.

9. **Total Volume (MBF) by Species and Grade:** (See attached volume report "Species, Sort Grade – Board Foot Volumes - Project").

Unit	Species	Gross Cruise Volume (MBF)	Cruised D & B	Cruised D & B (MBF)	Corridor Removal Acres	Corridor Removal Volume (MBF)	R/W Removal Volume	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
1	Douglas-fir	577	1.9%	(11)	9	151	11	1%	(7)	721
2	Douglas-fir	758	2.0%	(15)	10	161	-	1%	(9)	895
Total		1335	1.9%	(26)		312	11	1%	(16)	1616

Unit	Species	Avg. DBH	Tot. Net Vol.	2-Saw	3-Saw	4-Saw
1	Douglas-fir	12	Grade %	4%	77%	19%
			721	29	555	137
2	Douglas-fir	11	Grade %	1%	80%	19%
			895	9	716	170
Total	Total		1616	38	1271	307

Attachments: -Cruise Design
 -Cruise Maps
 -Statistics
 -Species, Sort, Grade – Board Foot Volume
 -Stand Table Summary
 -Log Stock Table – MBF

Prepared by: Zane Sandborg

Date: 06/23/2022

Unit Forester: 
 Evelyn Hukari

Date: 7/25/2022

CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: Beaver Believer Thin **Unit** 1

Harvest Type: PC

Approx. Cruise Acres: 87 **Estimated CV%** 40 Net BF /Acre **SE% Objective** 13 Net BF /Acre

Planned Sale Volume: 1,576 MMBF **Estimated Sale Area Value/Acre:** \$2,100

- A. Cruise Goals:** (a) Grade minimum 80 conifer and 0 hardwood trees:
(b) Sample 30 cruise plots (21 grade: 9 count); (c) Other goals X Determine log grades for sale value; X Determine take and leave tree species and sizes.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

- 1. Plot Cruises:** BAF 20 Full point
Cruise Line Direction(s) 90/270
Cruise Line Spacing 5/330 (chains) (feet)
Cruise Plot Spacing 6/396 (chains) (feet)
Grade/Count Ratio 2:1

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
- 5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
B. Sort: Use code "1" (Domestic).
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave.
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Zane Sandborg

Approved by: _____

Date: _____

CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: Beaver Believer Thin **Unit** 2

Harvest Type: PC

Approx. Cruise Acres: 99 **Estimated CV%** 40 Net BF /Acre **SE% Objective** 13 Net BF /Acre

Planned Sale Volume: 1,576 MMBF **Estimated Sale Area Value/Acre:** \$2,100

- A. Cruise Goals:** (a) Grade minimum 80 conifer and 0 hardwood trees:
(b) Sample 33 cruise plots (20 grade: 13 count); (c) Other goals X Determine log grades for sale value; X Determine take and leave tree species and sizes.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

- 1. Plot Cruises:** BAF 20 Full point
Cruise Line Direction(s) 90/270
Cruise Line Spacing 5/330 (chains) (feet)
Cruise Plot Spacing 6/396 (chains) (feet)
Grade/Count Ratio 2:1

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
- 5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
B. Sort: Use code "1" (Domestic).
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave.
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder or Lazer Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description, and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: _____

Approved by: _____

Date: _____

TC PSTATS				PROJECT STATISTICS				PAGE	1		
				PROJECT	BEAVBELI			DATE	6/23/2022		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt	
11S	09	20	U1	00PC	87.00		30	298	1	W	
					TREES	ESTIMATED		PERCENT			
				PLOTS	TREES	TOTAL		SAMPLE			
					PER PLOT	TREES		TREES			
TOTAL			30	298	9.9						
CRUISE			21	213	10.1	15,425		1.4			
DBH COUNT											
REFOREST											
COUNT			9	85	9.4						
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE			TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES			/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF-L			131	95.2	15.8	67	32.5	128.9	17,110	16,780	4,779
DF-T			75	77.0	12.1	48	17.8	62.0	6,642	6,515	1,908
R ALDER			4	3.1	12.6	40	0.8	2.7	272	272	80
SNAG			2	1.2	14.0	40	0.4	1.3			
CHERRY			1	.7	13.0	37	0.2	.7	58	58	19
TOTAL			213	177.3	14.2	58	51.9	195.6	24,082	23,625	6,786
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DF-L			35.0	3.1	189	195	201				
DF-T			43.5	5.0	93	97	102				
R ALDER			67.2	38.4	66	108	149				
SNAG											
CHERRY											
TOTAL			49.5	3.4	151	157	162	98	24	11	
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DF-L			34.5	3.0	55	56	58				
DF-T			42.5	4.9	28	29	30				
R ALDER			67.9	38.8	19	32	44				
SNAG											
CHERRY											
TOTAL			48.3	3.3	44	45	47	93	23	10	
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DF-L			24.6	4.6	91	95	100				
DF-T			70.0	13.0	67	77	87				
R ALDER			483.1	89.7	0	3	6				
SNAG			380.6	70.6	0	1	2				
CHERRY			547.7	101.7		1	1				
TOTAL			28.6	5.3	168	177	187	34	8	4	
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DF-L			14.3	2.7	125	129	132				
DF-T			72.1	13.4	54	62	70				
R ALDER			428.5	79.5	1	3	5				
SNAG			380.6	70.6	0	1	2				
CHERRY			547.7	101.7		1	1				
TOTAL			23.9	4.4	187	196	204	24	6	3	

PROJECT STATISTICS**PROJECT BEAVBELI**

DATE 6/23/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	09	20	U1	00PC	87.00	30	298	1	W

CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF-L		19.3	3.6	16,178	16,780	17,382			
DF-T		75.6	14.0	5,600	6,515	7,429			
R ALDER		414.7	77.0	63	272	482			
SNAG									
CHERRY		547.7	101.7		58	117			
TOTAL		26.1	4.8	22,482	23,625	24,767	28	7	3

CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF-L		15.9	3.0	4,638	4,779	4,921			
DF-T		74.8	13.9	1,643	1,908	2,173			
R ALDER		413.8	76.8	18	80	141			
SNAG									
CHERRY		547.7	101.7		19	38			
TOTAL		24.6	4.6	6,475	6,786	7,096	25	6	3

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																
<div>T11S R09W S20 Ty00PC87.00</div>				Project: BEAVBELI												Page 1				
				Acres 87.00												Date 6/23/2022 Time 10:35:01AM				
S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
								Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
				Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF	L	DO 2M	19	2.4	3,340	3,260	284	100				397				40	13	216	1.48	15.1
DF	L	DO 3M	71	1.6	12,076	11,878	1,033	100				11089				38	8	108	0.79	109.5
DF	L	DO 4M	10	3.1	1,694	1,642	143	100				40	58	2		22	6	27	0.42	61.3
DF Totals			71	1.9	17,110	16,780	1,460	81	19		4	7	7	82	33	8	90	0.78	185.9	
DF	T	DO 3M	78	2.3	5,252	5,132	446	100				1	3	10	85	37	8	78	0.62	65.6
DF	T	DO 4M	22	.5	1,389	1,383	120	100				55	45		20	6	24	0.35	57.8	
DF Totals			28	1.9	6,642	6,515	567	100				12	12	8	67	29	7	53	0.53	123.4
RA DO CR			100	272272			24	100				4	15	81		33	8	79	0.70	3.5
RA Totals			1	272272			24	100				4	15	81		33	8	79	0.70	3.5
CH DO CR			100	5858			5	100				100				36	8	80	0.72	.7
CH Totals			0	5858			5	100				100				36	8	80	0.72	.7
Totals				1.9	24,082	23,625	2,055	86	14		6	8	7	78	32	8	75	0.69	313.5	

TC		PSTNDSUM		Stand Table Summary										Page		1				
														Date:		6/23/2022				
T11S R09W S20 Ty00PC					87.00		Project					BEAVBELI					Time:		10:35:02AM	
							Acres					87.00					Grown Year:			
S SpC T	Tot							Average Log		Net		Net		T o t a l s						
	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF					
DF L	10	1	90	112	1.773	.97	3.55	10.5	45.0		37	160		32	14					
DF L	11	2	86	84	2.930	1.93	4.40	12.7	43.3		56	190		48	17					
DF L	12	6	88	94	7.387	5.80	12.31	16.2	58.0		199	714		174	62					
DF L	13	5	72	85	7.664	7.06	14.28	16.3	63.1		233	901		202	78					
DF L	14	13	88	94	11.758	12.57	23.52	19.3	66.2		454	1,556		395	135					
DF L	15	17	89	94	13.395	16.44	26.79	22.7	81.8		608	2,190		529	191					
DF L	16	26	88	100	18.005	25.14	36.01	27.0	97.9		973	3,525		846	307					
DF L	17	20	88	93	12.269	19.34	24.54	28.8	100.0		707	2,454		615	213					
DF L	18	20	88	98	10.943	19.34	21.89	33.8	114.8		740	2,511		644	218					
DF L	19	7	89	98	3.438	6.77	6.88	38.7	133.6		266	918		232	80					
DF L	20	8	86	98	3.546	7.74	7.53	38.5	129.4		290	975		252	85					
DF L	21	1	82	83	.402	.97	.80	41.0	105.0		33	84		29	7					
DF L	22	3	84	98	1.099	2.90	2.20	48.7	148.3		107	326		93	28					
DF L	23	1	88	103	.335	.97	.67	57.5	215.0		39	144		34	13					
DF L	25	1	84	101	.284	.97	.57	67.5	230.0		38	130		33	11					
DF L	Totals	131	87	95	95.227	128.90	185.92	25.7	90.3		4,779	16,780		4,158	1,460					
DF T	8	3	87	36	7.105	2.48	7.10	5.0	20.0		36	142		31	12					
DF T	9	2	82	58	3.742	1.65	3.74	11.0	35.0		41	131		36	11					
DF T	10	5	87	87	7.578	4.13	10.61	11.7	47.1		124	500		108	44					
DF T	11	14	86	89	17.537	11.57	25.05	13.9	50.0		348	1,253		303	109					
DF T	12	13	86	89	13.683	10.75	24.21	13.9	47.4		336	1,147		292	100					
DF T	13	8	86	91	7.175	6.61	14.35	15.6	52.5		224	753		195	66					
DF T	14	7	86	79	5.413	5.79	10.05	17.6	55.4		177	557		154	48					
DF T	15	16	86	84	10.778	13.23	20.88	20.4	66.1		426	1,381		370	120					
DF T	16	5	85	82	2.960	4.13	5.33	24.7	77.8		131	414		114	36					
DF T	17	2	86	100	1.049	1.65	2.10	30.7	112.5		65	236		56	21					
DF T	Totals	75	86	81	77.020	62.00	123.43	15.5	52.8		1,908	6,515		1,660	567					
RA	11	1	87	39	1.010	.67	1.01	12.0	40.0		12	40		11	4					
RA	12	2	86	89	1.698	1.33	1.70	26.0	90.0		44	153		38	13					
RA	18	1	87	77	.377	.67	.75	31.0	105.0		23	79		20	7					
RA	Totals	4	86	71	3.085	2.67	3.46	23.0	78.7		80	272		69	24					
CH	13	1	87	74	.723	.67	.72	26.0	80.0		19	58		16	5					
CH	Totals	1	87	74	.723	.67	.72	26.0	80.0		19	58		16	5					
SN	14	2	94	59	1.247	1.33														
SN	Totals	2	94	59	1.247	1.33														
Totals		213	86	88	177.303	195.56	313.53	21.6	75.3		6,786	23,625		5,904	2,055					

TC		LOGSTVB																		Log Stock Table - MBF									
T11S R09W S20 Ty00PC										87.00		Project:		BEAVBELI										Page		1			
												Acres		87.00										Date		6/23/2022			
																								Time		10:35:01AM			
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches																				
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+									
DF	L	DO	2M	26	9	13.0	8	.5							8														
DF	L	DO	2M	40	282	2.1	276	18.9					248		19	10													
DF	L	DO	3M	30	11	3.6	10	.7			6		4																
DF	L	DO	3M	32	43	2.1	42	2.9			30	12																	
DF	L	DO	3M	34	57		57	3.9			10	8	39																
DF	L	DO	3M	36	41	3.3	40	2.7			25	7	9																
DF	L	DO	3M	38	101	2.1	99	6.8			46	26	26																
DF	L	DO	3M	40	798	1.6	786	53.8			70	201	515																
DF	L	DO	4M	12	1		1	.1			1																		
DF	L	DO	4M	16	32	9.5	29	2.0			20	9																	
DF	L	DO	4M	18	10		10	.7			10																		
DF	L	DO	4M	20	17		17	1.2			17																		
DF	L	DO	4M	24	20		20	1.4			20																		
DF	L	DO	4M	26	18		18	1.2			18																		
DF	L	DO	4M	28	23		23	1.6			23																		
DF	L	DO	4M	30	22		22	1.5			22																		
DF	L	DO	4M	32	5	30.6	4	.2			4																		
DF		Totals			1,489	1.9	1,460	71.0			321	263	593	248	26	10													
DF	T	DO	3M	20	5		5	.8					5																
DF	T	DO	3M	26	5		5	.9					5																
DF	T	DO	3M	28	10		10	1.8				10																	
DF	T	DO	3M	32	20	3.9	19	3.4			8	11																	
DF	T	DO	3M	34	30	6.8	28	4.9			16	11																	
DF	T	DO	3M	36	66	3.4	64	11.3			34	31																	
DF	T	DO	3M	38	91	2.0	89	15.7			30	59																	
DF	T	DO	3M	40	230	1.6	227	40.0			93	93	41																
DF	T	DO	4M	12	1		1	.2			1																		
DF	T	DO	4M	14	9		9	1.5			6	3																	
DF	T	DO	4M	16	43	1.4	42	7.4			42																		
DF	T	DO	4M	18	6		6	1.0			6																		
DF	T	DO	4M	20	9		9	1.6			9																		
DF	T	DO	4M	24	27		27	4.7			27																		
DF	T	DO	4M	26	12		12	2.1			12																		
DF	T	DO	4M	28	9		9	1.6			9																		
DF	T	DO	4M	30	7		7	1.1			7																		
DF		Totals			578	1.9	567	27.6			298	218	51																

TC		PLOGSTVB		Log Stock Table - MBF															
<div>T11S R09W S20 Ty00PC87.00</div>				Project: Acres		BEAVBELI 87.00				Page Date Time		2 6/23/2022 10:35:01AM							
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		DO	CR	16	1	1	4.2			1									
RA		DO	CR	24	4	4	14.8			4									
RA		DO	CR	40	19	19	81.0				13	6							
RA		Totals			24	24	1.2			5	13	6							
CH		DO	CR	36	5	5	100.0				5								
CH		Totals			5	5	.2				5								
Total		All Species			2,095	1.9	2,055	100.0			624	499	649	248	26	10			

TC PSTATS				PROJECT STATISTICS				PAGE	1		
				PROJECT	BEAVBELI			DATE	6/23/2022		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt	
11S	09	20	U2	00PC	99.00		33	333	1	W	
					TREES	ESTIMATED		PERCENT			
				PLOTS	TREES	PER PLOT	TREES	SAMPLE	TREES		
TOTAL			33	333	10.1						
CRUISE			20	196	9.8		21,111	.9			
DBH COUNT											
REFOREST											
COUNT			13	137	10.5						
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE			TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES			/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF-L			128	112.2	14.5	62	33.8	128.5	16,434	16,132	4,592
DF-T			66	99.8	11.4	46	21.0	70.9	7,660	7,509	2,116
SNAG			2	1.2	13.9	36	0.3	1.2			
TOTAL			196	213.2	13.1	54	55.4	200.6	24,094	23,641	6,708
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			32.7	2.9	153	158	162				
DF-T			39.5	4.9	80	84	88				
SNAG											
TOTAL			44.9	3.2	127	131	136	81	20	9	
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			32.2	2.8	44	45	46				
DF-T			40.8	5.0	23	24	25				
SNAG											
TOTAL			44.8	3.2	36	38	39	80	20	9	
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			14.0	2.4	110	112	115				
DF-T			58.3	10.1	90	100	110				
SNAG			423.0	73.6	0	1	2				
TOTAL			26.6	4.6	203	213	223	28	7	3	
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			10.3	1.8	126	128	131				
DF-T			61.1	10.6	63	71	78				
SNAG			399.8	69.5	0	1	2				
TOTAL			24.5	4.3	192	201	209	24	6	3	
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			13.5	2.3	15,754	16,132	16,510				
DF-T			60.9	10.6	6,714	7,509	8,304				
SNAG											
TOTAL			24.6	4.3	22,629	23,641	24,653	24	6	3	
CL	68.1	COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF-L			12.3	2.1	4,494	4,592	4,690				
DF-T			62.1	10.8	1,888	2,116	2,345				

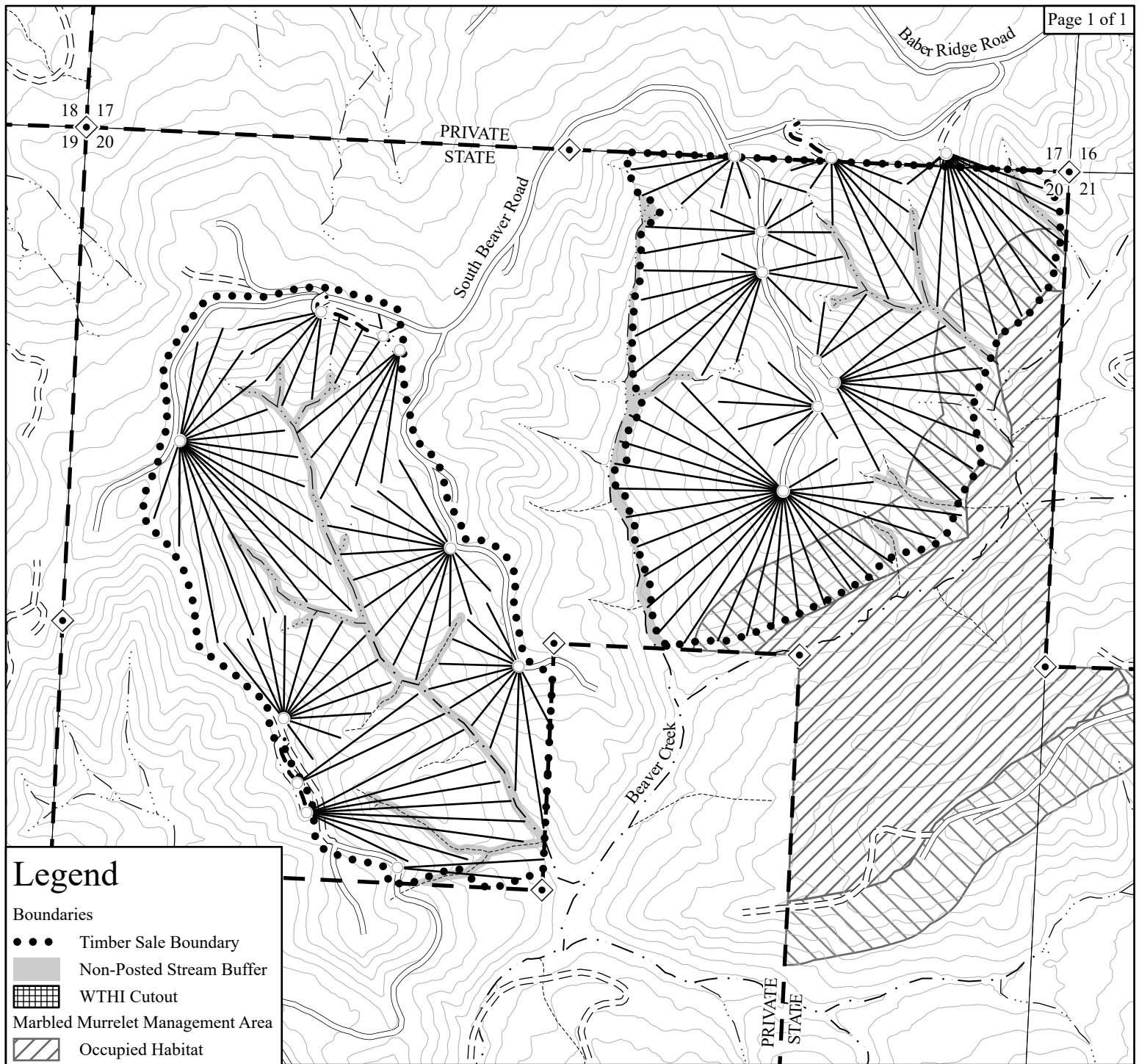
TC PSTATS				<u>PROJECT STATISTICS</u>				PAGE	2	
				PROJECT	BEAVBELI			DATE	6/23/2022	
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
11S	09	20	U2	00PC	99.00		33	333	1	W
CL	68.1		COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.	INF. POP.	
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SNAG										
TOTAL			24.4	4.2	6,424	6,708	6,993	24	6	3

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div>T11S R09W S20 Ty00PC99.00</div>				Project: BEAVBELI												Page 1					
				Acres 99.00												Date 6/23/2022					
																Time 10:16:31AM					
S So Gr Spp T rt ad			%	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
			Net BdFt					Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF	L	DO 2M	5	3.4	943	911	90	100				2080				37	12	189	1.39	4.8	
DF	L	DO 3M	79	2.0	13,008	12,742	1,261	100				1594				38	9	109	0.78	116.6	
DF	L	DO 4M	16	.2	2,483	2,479	245	100				38	61	1		22	6	26	0.39	96.5	
DF Totals			68	1.8	16,434	16,132	1,597	94	6			6	11	4	79	31	8	74	0.68	217.9	
DF	T	DO 2M			54	54	5	100				100					12	13	70	1.25	.8
DF	T	DO 3M	80	2.5	6,157	6,006	595	100				52273				37	7	70	0.54	86.4	
DF	T	DO 4M	20		1,449	1,449	143	100				68	32			18	6	21	0.33	68.6	
DF Totals			32	2.0	7,660	7,509	743	99	1			14	10	17	58	28	7	48	0.48	155.7	
Totals				1.9	24,094	23,641	2,340	96	4			8	11	8	72	30	7	63	0.60	373.7	

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		6/23/2022	
T11S R09W S20 Ty00PC				99.00		Project		BEAVBELI				Time:		10:16:31AM			
						Acres		99.00				Grown Year:					
S Sp	T	Tot							Average Log		Net		Net		T o t a l s		
		DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF	
DF L		8	1	88	42	2.876	1.00	2.88	5.0	20.0		14	58		14	6	
DF L		10	1	90	80	1.840	1.00	1.84	15.0	60.0		28	110		27	11	
DF L		11	3	90	96	4.563	3.01	9.13	10.8	41.7		99	380		98	38	
DF L		12	9	88	88	11.503	9.03	20.45	14.6	53.7		298	1,099		295	109	
DF L		13	13	89	87	14.157	13.05	28.31	15.2	51.2		430	1,448		426	143	
DF L		14	27	89	95	25.353	27.10	50.71	19.4	67.8		984	3,437		974	340	
DF L		15	25	89	92	20.449	25.09	40.90	22.4	79.2		915	3,239		906	321	
DF L		16	23	89	96	16.535	23.09	33.79	25.6	91.7		865	3,099		856	307	
DF L		17	12	88	92	7.642	12.05	15.28	29.1	101.3		445	1,547		441	153	
DF L		18	8	88	94	4.544	8.03	9.09	33.0	112.5		300	1,022		297	101	
DF L		19	3	87	90	1.529	3.01	3.06	34.3	110.0		105	336		104	33	
DF L		20	1	86	93	.460	1.00	.92	38.5	120.0		35	110		35	11	
DF L		21	1	86	111	.417	1.00	.83	50.0	180.0		42	150		41	15	
DF L		22	1	88	77	.380	1.00	.76	42.0	125.0		32	95		32	9	
DF L		Totals	128	89	91	112.248	128.48	217.94	21.1	74.0		4,592	16,132		4,546	1,597	
DF T		8	2	86	33	6.156	2.15	6.16	5.0	15.0		31	92		30	9	
DF T		9	3	86	53	7.296	3.22	7.30	8.7	30.0		63	219		63	22	
DF T		10	13	87	83	25.608	13.97	31.52	12.4	49.4		390	1,556		386	154	
DF T		11	10	89	87	16.280	10.74	26.05	12.1	45.0		316	1,172		313	116	
DF T		12	13	88	86	17.783	13.97	32.83	13.7	47.5		449	1,559		444	154	
DF T		13	15	86	86	17.484	16.12	32.64	15.6	51.1		511	1,667		505	165	
DF T		14	6	87	86	6.030	6.45	12.06	17.7	61.7		214	744		212	74	
DF T		15	2	88	84	1.751	2.15	3.50	20.2	70.0		71	245		70	24	
DF T		16	1	86	94	.769	1.07	2.31	14.7	60.0		34	139		34	14	
DF T		17	1	92	87	.682	1.07	1.36	28.0	85.0		38	116		38	11	
DF T		Totals	66	87	80	99.838	70.91	155.72	13.6	48.2		2,116	7,509		2,095	743	
SN		12	1	99	51	.772	.61										
SN		17	1	98	24	.384	.61										
SN		Totals	2	99	42	1.156	1.21										
Totals			196	88	85	213.243	200.61	373.66	18.0	63.3		6,708	23,641		6,641	2,340	

TC PLOGSTVB				Log Stock Table - MBF															
T11S R09W S20 Ty00PC				99.00		Project:		BEAVBELI		Page		1							
						Acres		99.00		Date		6/23/2022							
										Time		10:16:30AM							
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	L	DO	2M	28	10	7.1	9	.6				9							
DF	L	DO	2M	30	9	6.7	9	.6				9							
DF	L	DO	2M	40	74	2.5	72	4.5				60	12						
DF	L	DO	3M	24	8	11.1	7	.5				7							
DF	L	DO	3M	30	6		6	.4			6								
DF	L	DO	3M	32	55	3.9	53	3.3		35	18								
DF	L	DO	3M	34	13		13	.8		6	8								
DF	L	DO	3M	36	72	4.5	69	4.3		29	30	10							
DF	L	DO	3M	38	156		156	9.7		14	74	67							
DF	L	DO	3M	40	977	2.0	957	59.9		29	446	482							
DF	L	DO	4M	16	49		49	3.0		49									
DF	L	DO	4M	18	21		21	1.3		21									
DF	L	DO	4M	20	23		23	1.4		23									
DF	L	DO	4M	24	48		48	3.0		48									
DF	L	DO	4M	26	37		37	2.3		37									
DF	L	DO	4M	28	49		49	3.1		49									
DF	L	DO	4M	30	17		17	1.1		17									
DF	L	DO	4M	32	2	20.0	2	.1		2									
DF		Totals			1,627	1.8	1,597	68.2		358	582	567	78	12					
DF	T	DO	2M	12	5		5	.7				5							
DF	T	DO	3M	24	7	11.1	6	.8				6							
DF	T	DO	3M	26	7		7	.9		7									
DF	T	DO	3M	30	18		18	2.4		10	8								
DF	T	DO	3M	32	86	6.5	81	10.9		39	42								
DF	T	DO	3M	34	49		49	6.5		31	18								
DF	T	DO	3M	36	58	6.2	54	7.3		37	17								
DF	T	DO	3M	38	136	2.0	134	18.0		75	50	9							
DF	T	DO	3M	40	249		246	33.1		108	138								
DF	T	DO	4M	12	8		8	1.1		8									
DF	T	DO	4M	14	7		7	.9		7									
DF	T	DO	4M	16	65		65	8.7		65									
DF	T	DO	4M	18	13		13	1.7		13									
DF	T	DO	4M	20	6		6	.8		6									
DF	T	DO	4M	24	28		28	3.7		28									
DF	T	DO	4M	26	11		11	1.4		11									
DF	T	DO	4M	28	7		7	1.0		7									

TC		PLOGSTVB		Log Stock Table - MBF															
<div>T11S R09W S20 Ty00PC99.00</div>				Project:		BEAVBELI								Page		2			
				Acres		99.00								Date		6/23/2022			
														Time		10:16:30AM			
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		Totals		758	2.0	743	31.8			443	280	15	5						
Total		All Species		2,385	1.9	2,340	100.0			802	862	582	84	12					



Legend

Boundaries

- • • Timber Sale Boundary
- Non-Posted Stream Buffer
- ▤ WTHI Cutout
- ▨ Marbled Murrelet Management Area
- ▨ Occupied Habitat
- ▨ Non-Habitat Buffer
- - - Ownership

Roads

- Surfaced Road
- - - Unsurfaced Road
- - - New Construction
- - - Right-of-Way (Posted)

Streams

- Type F Stream
- Type N Stream
- - - Unknown Stream
- Cable Corridor
- Landing
- ◆ Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. WO-341-2023-W00993-01
 BEAVER BELIEVER THIN
 PORTIONS OF SECTION 20 T11S, R9W, W.M.
 LINCOLN COUNTY, OREGON.

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

UNIT	NET	NET
	CABLE ACRES	GROUND ACRES
1 (PC)	87	0
2 (PC)	99	0
TOTAL	186	0

1:9,000

