

Timber Sale Appraisal Gobbler GNA

Sale CS-341-2022-GF8418-01

District: Coos Date: June 16, 2021

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$355,791.44	\$0.00	\$355,791.44
		Project Work:	(\$20,700.00)
		Advertised Value:	\$335,091.44



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Timber Description

Location: Portions of Section 2 of Township 32S R11E, Willamette Meridian, Coos County Oregon. US Forest Service Ownership.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)		
Douglas - Fir	12	0	90		

Volume by Grade	2\$	38	4 S	Total
Douglas - Fir	43	570	1,006	1,619
Total	43	570	1,006	1,619

Comments: Good Neighbor Authority sale

1. SOURCE OF POND VALUES

Pond Values Used: Coos Region, June 2021.

2. PRICING FOR ANY SPECIES THAT DOES NOT HAVE ANY VOLUME LISTED IN THE APPRAISAL Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost: \$156/MBF = \$635/MBF - \$479/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost: \$356/MBF = \$835/MBF - \$479/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost: \$216/MBF = \$695/MBF - \$479/MBF

3. PULP PRICE

Pulp (Conifer and Hardwood) Price = \$0.25/ton

- 4. IDENTIFY OTHER COSTS WITH PROFIT & RISK TO BE ADDED: Slash piling (\$1500), Rig lift trees (\$750), Artificial guy anchors (\$1000), plastic sheeting for slash piles (\$600), subsoiling roads (\$3750), slash covering of subsoiled roads (\$1250), Subsoiling landings (\$3600).
- 5. IDENTIFY OTHER COSTS WITH NO PROFIT & RISK ADDED:N/A
- 6. IDENTIFY SLASH DISPOSAL COSTS: N/A
- 7. IDENTIFY ROAD MAINTENANCE COSTS: \$4.12/MBF/mile (8.65 mi) unless purchaser proposes, and road permittee agrees to allow Purchaser to provide road maintenance and surface replacement rock in which case the fee will be reduced to \$2.00/MBF/mile (8.65 mi). See Exhibit H for more details.

6/30/21



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Logging Conditions

Combination#: 1 Douglas - Fir 38.00%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber

yarding distance: Long (1,500 ft) downhill yarding: No

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

loads / day: 5 bd. ft / load: 3500

cost / mbf: \$320.00

machines: Log Loader (A)

Stroke Delimber (A)
Tower Yarder (Small)

Combination#: 2 Douglas - Fir 62.00%

Logging System: Shovel 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: 8 bd. ft / load: 3500

cost / mbf: \$113.28

machines: Stroke Delimber (B)



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Logging Costs

Operating Seasons: 1.00

Profit Risk: 20%

Project Costs: \$20,700.00

Other Costs (P/R): \$12,450.00

Slash Disposal: \$0.00

Other Costs: \$12,395.00

Miles of Road

Road Maintenance:

\$35.64

Dirt	Rock (Contractor)	Rock (State)	Paved
1.0	0.0	0.0	4.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF / Load		
Douglas - Fir	\$0.00	2.0	3.5		



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas -	Fir								
\$191.83	\$39.20	\$2.71	\$149.28	\$7.69	\$78.14	\$0.00	\$2.00	\$7.66	\$478.51

Specie	Amortization Pond Value		Stumpage	Amortized	
Douglas - Fir	\$0.00	\$698.27	\$219.76	\$0.00	



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Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total		
Douglas - Fir	1,619	\$219.76	\$355,791.44		

Gross Timber Sale Value

Recovery: \$355,791.44

Prepared By: Ryan Greco Phone: 541-267-1742

Summary of Construction Costs Gobbler GNA

Project 1A: Road Improvement

Points: F to L Length: 2126' Type: 14' w/ ditch

Grader 2 hrs at \$90.00 per hour \$180.00

Total Project 1A: \$180.00

Project 1B: Road Improvement

Points: C to M Length: 2,990' Type: 14' w/ ditch

 Grader
 2 hrs at
 \$90.00 per hour
 \$180.00

 Road Brushing
 6 hrs at
 \$100.00 per hour
 \$600.00

 Rock to cap scotch broom
 10 yards
 \$32.00 per yard
 \$320.00

Total Project 1B: \$1,100.00

Project 1C: Road Improvement

Points: D to K Length: 658' Type: 14' w/ ditch

 Road Brushing
 2 hrs at
 \$100.00 per hour
 \$200.00

 Cat time, shape road prism
 3 hrs at
 \$165.00 per hour
 \$495.00

 Rock to cap gorse
 5 yards
 \$32.00 per yard
 \$160.00

Total Project 1C: \$695.00

Project 1D: Road Improvement

Points: Y to W Length: 987' Type: 14' no ditch

Road Brushing 2 hrs at \$100.00 per hour \$200.00 Cat time, shape road prism, remove small trees 2 hrs at \$165.00 per hour \$330.00 Grader, final smooth 1 hrs at \$90.00 per hour \$90.00

Total Project 1D: \$620.00

Project 1E: Road Improvement

Points: F to G Length: 2,585' Type: 14 w/ ditch

 Road Brushing
 6 hrs at
 \$100.00 per hour
 \$600.00

 Grader, final smooth
 2 hrs at
 \$90.00 per hour
 \$180.00

Total Project 1E: \$780.00

Project 1F: Road Improvement

Points: H to O, I to N, J to P,Q Length: 7,690' Type: 14' no ditch

Road Brushing 8 hrs at \$100.00 per hour \$800.00 \$165.00 Cat time, shape road prism 8 hrs at per hour \$1,320.00 Grader, final smooth 3 hrs at \$90.00 \$270.00 per hour Rock to cap gorse (I to N) 5 yards \$32.00 \$160.00 per yard

Total Project 1F: \$2,550.00

Project 1G: Landing Improvement/Construction

Points: M, N, O, P,Q,R,S,T,U,V,W,X Length: N/A Type: N/A

Cat time - smooth landing surface & compact 15 hrs at \$165.00 per hour \$2,475.00 Excavator- landing cleanup 12 hrs at \$175.00 per hour \$2,100.00

Total Project 1G: \$4,575.00

Total Project 1: <u>\$10,500.00</u>

Project 2A: Road Construction

Points: K to V Length: 145' Type: 14' w/ ditch

 Cat time, shape road prism
 3 hrs at
 \$165.00 per hour
 \$495.00

 Excavator, Road cleanup
 4 hrs at
 \$175.00 per hour
 \$700.00

 Grader, final smooth
 1 hrs at
 \$90.00 per hour
 \$90.00

Total Project 2A: \$1,285.00

Project 2B: Road Construction

Points: L to U Length: 135' Type: 14' w/ ditch

Cat time, shape road prism3 hrs at\$165.00 per hour\$495.00Excavator, Road cleanup4 hrs at\$175.00 per hour\$700.00Grader, final smooth1 hrs at\$90.00 per hour\$90.00

Total Project 2B: \$1,285.00

Project 2C: Road Construction

Points: Q to R Length: 366' Type: 14' w/ ditch

 Cat time, shape road prism
 10 hrs at
 \$165.00 per hour
 \$1,650.00

 Excavator, Road cleanup
 8 hrs at
 \$175.00 per hour
 \$1,400.00

 Grader, final smooth
 2 hrs at
 \$90.00 per hour
 \$180.00

Total Project 2C: \$3,230.00

Total Project 2: \$5,800.00

Move-in

			Lowb or Equp rate/hr	Weed Washing	
Equipment	miles	hrs/RT			Total
Excavator	35	7	\$125.00	\$325.00	\$1,200.00
Cat	35	7	\$125.00	\$325.00	\$1,200.00
Brusher	35	6	\$100.00	\$325.00	\$925.00
Grader	35	6	\$125.00	\$325.00	\$1,075.00

Total Move-in: \$4,400.00

Summary of Construction Cost Totals for Projects 1, 2 and Move-in: \$20,700.00

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Gobbler GNA

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

	<u>Units</u>	Quantity	Cos	t/unit	1	otal Cost
Felling						
Felling of unmerch material	acre	0	\$	80.00	\$	-
Yarding and Loading						
Cull sorting/slash piling/landing cleanup	landing	12	\$	125.00	\$	1,500
Rig tail/lift trees	lift tree	5	\$	150.00	\$	750
Artificial guy anchors(dozer, skidder)	anchor	2	\$	500.00	\$	1,000
Cover landing slash piles w/sheeting	landing	12	\$	50.00	\$	600
Miscellaneous Costs						
Subsoiling 20 inches - skid and temp roads	station	25	\$	150.00	\$	3,750
Slash covering of subsoiled roads	station	25	\$	50.00	\$	1,250
Subsoil 20 inches - Landings	landing	12	\$	300.00	\$	3,600
						10 170
Total additional "Other Cost" with additional profit and ris	k to be added				\$	12,450

Additional "Other Cost" with no additional profit and Risk

 Units
 Quantity
 Cost/unit
 Total Cost

 yards
 \$

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

\$ -

TIMBER SALE SUMMARY

- 1. <u>Type of Sale</u>: Recovery sale, sealed bid auction of 159 acres of thinning.
- 2. Revenue Distribution: USFS Supplemental Project Agreement 18-GN-11061000-048 Project GF8018-73 PCA 02604
- **3.** <u>Sale Acreage</u>: For the sale, 159 net acres were used for the cruise expansion. Acreage was determined with ArcGIS Pro.
- **4. Volume:** The table below describes the volume by grade over the sale areas. A more detailed look is available in the cruise report.
- **5.** <u>Cruise Data</u>: The volume of the sale is estimated to be 1,618 MBF (7.6% sampling error). The volume of sale areas will be more variable due to the smaller sample compared to the total volume sample. See the cruise report for more detail. Additional SuperAce reports available upon request.
- **6. Timber Description:** Area 1 is a mixed conifer stand with Douglas-fir averaging 19 inches in diameter and 110-130' tall. Western Hemlock is also common, averaging 17 inches in diameter and 70-100' tall. The stand also includes Port-Orford cedar and minor amounts of hardwoods. Areas 2, 3, and 4 are mostly Douglas-fir stands around 70-100' tall and 12 inches diameter. The volume per acre is greatest in Area 1 where take trees average 16 inches diameter, while in areas 2, 3, and 4 the average cut tree is 11 inches diameter. These stands are 50 60 years old. The merchantable species will be entirely Douglas-fir. The cruise report gives a breakdown of log lengths and scaling diameters by species for the areas in the cruise. Stand management objectives are to remove the smaller trees in suppressed and intermediate canopy positions and to release dominant and co-dominant trees and improve the quality of the residual stand.
- 7. <u>Topography and Logging Method</u>: The majority (62%) of the sale can be logged with ground based equipment, operating on slopes 30% and less. Existing skid roads should be used whenever possible. Cable corridors will have to be planned carefully to maximize operability. See the detailed logging map which shows the logging plan. Three temporary roads will need to be constructed, including two on private timberland accessing the timber sale areas. A historical aerial photograph from 1969 is available to assist with locating previously used skid trails and roads within the timber sale boundary.
- 8. Access: From Powers, proceed 5.9 miles on Powers South Rd (Highway 219) which turns into NF-33, turn left onto Coal Creek Rd (NF-3358) for 1.0 mile, turn left onto the 5000 line for 5.5 miles, turn right onto the 5300 for 0.4 mile until you reach the 5300/5310 junction which is Point B. Purchaser will need to complete the access agreement provided as Exhibit H specifying insurance requirements and fees and/or maintenance.
- **9.** <u>Projects:</u> Road and landing construction and improvement. Total costs for these projects are \$20,700. Subsoiling Primary Skid Roads and New Construction as indicated on maps along with any primary skid roads used extensively enough to create a compacted road bed.
- **10.** Road Maintenance: \$4.12/MBF/mile (8.65 mi) unless purchaser proposes, and road permittee agrees to allow Purchaser to provide road maintenance and surface replacement rock in which case the fee will be reduced to \$2.00/MBF/mile (8.65 mi). See Exhibit H for more details.
- 11. Other Costs: Weed washing and slash piling, accounted for in the projects/appraisal.
- **12.** Slash Disposal: Purchaser shall pile slash on landings and the tractor ground with an excavator or log loader or alternatively, spread slash throughout the units less than 18" in depth with a goal of 85% ground cover.; no sorting out firewood is required, utilize pieces of woody debris for down wood in the unit. USFS will burn the slash piles.

OREGON DEPARTMENT of FORESTRY CRUISE REPORT

- 1. Acreage Calculation: For the Gobbler Timber Sale, there are 159 net cruise acres in the sale area determined by a combination of GPS traverse waypoints and ArcGIS Pro software. Net acres do not include the riparian management areas, regeneration areas within the stand, and low-stocked areas which were not cruised. The 22 acres of low stocked areas are within the timber sale boundary but likely lack necessary basal area to be treated. Purchasers may treat low stocked areas following the thinning prescription.
- 2. Cruise Method: The Gobbler timber sale was cruised by ODF during the Fall of 2020. A variable plot cruise was conducted on the sale area.
- 3. Sampling Intensity:

Plots 101 Total Plots (31 Measured, 68 Count Plots, and 2 Blank Plots)

CV (BDFT) <u>76%</u> (total) SE (BDFT) <u>7.6%</u> (total)

As per ODF standards, total harvest volume of conifers ("take" trees) is estimated to be 1,618 MBF \pm 123 MBF at the 68% confidence level and a sampling error of 7.6%. The volume estimate will be within 1,495 MBF and 1,741 MBF 68% of the time.

- **4. Computation Procedures:** Volume was computed using the SuperACE cruise program. Volumes reported are based on the Scribner Log Rule (West).
- **5. Form Factors:** Form factors (a ratio of diameter at 4 and 16 feet) were sampled across the diameter distribution in all strata.
- **6. Height Standards:** Most conifer trees were measured for total height with a laser rangefinder.
- 7. **Diameter standards:** Diameters were measured outside bark at breast height to the nearest inch.
- **8. Grading System:** Trees were graded primarily as 34 foot segments lengths and according to the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group.
- **9. Merchantable top:** Conifer were graded to a merchantable top specified by the official log scaling rules. 2S segments were graded to a 12" top inside bark, 3S to a 6" top, and 4S to a 5" top (inside bark).
- **10. Deductions for Cull, Defect and Breakage:** All visible field cull was removed in the cruise computation. Additional volume was deducted for the anticipated amount of hidden cull and breakage during logging. The estimated volume reduction used for this anticipated loss to volume was 4%.
- 11. Cruisers: Cruising was performed by ODF foresters.

^{*}ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to do their own cruise and sale volume calculations. Additional SuperAce Reports available upon request.

Volume By Unit

CRUISE VOLUME PER

ADJUSTED VOLUME MBF/ACRE*

ACRE					MBF/ACRE*			TOTAL VOLUME MBF					
Species (Take)	Unit	2 Saw	3 Saw	4 Saw	Cruise Vol/Ac re	2 Saw	3 Saw	4 Saw	NET ACRES	2 Saw	3 Saw	4 Saw	Total Volume
Douglas Fir	1	3,163	6,817	4,997	14,977	3,036	6,544	4,797	14	42,511	91,620	67,160	201,291
Douglas Fir	2 - 4		3,433	6,747	10,180	0	3,296	6,477	145	0	477,874	939,182	1,417,056
Sale Volume									159	47,976	569,494	1,006,342	1,618,347

^{*}Adjusted 4% for hidden cull and breakage

SALE VOLUME BY GRADE MBF						
Species	2 Saw	3 Saw	4 Saw	Total		
Douglas Fir	42,511	569,494	1,006,342	1,618,347		
Sale Volume	42,511	569,494	1,006,342	1,618,347		

SALE VOLUME BY GRADE PERCENTAGE						
	2 Saw	3 Saw	4 Saw	Total		
Douglas Fir	3%	35%	62%	100%		
Sale Volume	3%	35%	62%	100%		

ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to perform their own cruise and appraisal. These volumes reflect merchantable saw logs. A small amount of pulp logs could be harvested from the sale area.



