FOREST INDUSTRY RESEARCH PROGRAM
UNIVERSITY OF MONTANA

Forest Industry Research Program
Bureau of Business and Economic Research
University of Montana – Missoula
www.business.umt.edu/FIR/

KLAMATH RIVER BASIN ACTIVE FOREST MANAGEMENT STRATEGY AREA

Introduction:

This document provides information about the Klamath River Basin Active Forest Management Strategy Area (AFMSA). It was generated by the Forest Industry Research Program of the Bureau of Business and Economic Research (BBER) at the University of Montana - Missoula. The mill survey data underlying these analyses were collected under joint venture agreements with the USDA Forest Service's Forest Inventory and Analysis program at the Pacific Northwest Research Station (#21-JV-11261979-053) and Rocky Mountain Research Station (#20-JV-11221638-171). The landscape analyses and summary tables were developed under agreement #23-PA-11132400-368, and the residuals tables were developed under agreement #25-JV-11261936-106.

The data used in these analyses are the results of periodic censuses of each of the western states, as well as annual sample surveys of the same. Using data from both types of surveys allows us to provide time-series data, though it necessitates providing estimates as percentages rather than actual volume.

While BBER collects data at the mill level, mill-level data are confidential and will not be released.

Methods and Definitions:

The Klamath River Basin AFMSA covers a defined area that includes pieces of several counties. The combined area of the counties "touched" by this area constitutes its "Study Area" (for details, see fig. 1 and table 1). Defining a Study Area that covers entire counties is necessary to enable analysis, as the county is the smallest geographic area of mill survey data by BBER and FIA-TPO.

Further, BBER analysis of timber flow indicates that timber harvested within the Study Area is processed by facilities located both inside and outside this specific area. All counties that contain one or more facilities that process timber harvested within the Study Area constitute the "Timber Processing Area" (TPA) (for details, see fig. 1 and table 4).

In these tables, “capacity” refers to the maximum total volume of timber (excluding pulpwood and fuelwood) that existing timber processors could utilize annually, given firm market demand for products, sufficient raw material, and ordinary downtime for maintenance. Also known as “timber-processing capacity”, it is a measure of mills’ timber input capacity and is expressed in thousand board feet (MBF) Scribner and hundred cubic feet (CCF) per year. Input capacity is a useful measure when attempting to express the capacity of multiple types of mills in a common unit of measure. It is estimated from production (output) capacity information provided by facilities.

Estimates in these tables include the capacity of active facilities as well as idle (inactive) facilities with equipment still in place. Facilities that are permanently closed are not included. This analysis focuses on facilities that exclusively use timber in round form; this includes sawmills, veneer mills, and facilities processing timber into house logs/log homes, posts, small poles, utility poles, cedar products (e.g., shakes and shingles), and log furniture. Facilities (e.g., pulp mills, wood pellet manufacturers, and biomass energy facilities) that use a mix of roundwood and non-roundwood inputs (i.e., mill residuals such as chips, sawdust, shavings, and bark) are not included in the capacity analysis because the combination of roundwood and non-roundwood inputs can vary widely from year to year, potentially over- or under-estimating capacity and use of roundwood by substantial margins.

“Capability” refers to the volume of trees of a certain size class (measured as diameter at breast height, or dbh) that existing timber processors can economically process annually. The three dbh classes are <7”, 7" to 9.9”, and ≥10”. Some facilities are designed to operate using only trees of a given size class (e.g., veneer/ plywood plants typically only use trees ≥10” dbh, and post manufacturers primarily use trees <10” dbh). The capability of these facilities is readily classified into just one size class. Many facilities can use timber from more than one size class.

“Use” refers to the volume of timber, both in total and by tree dbh class, that facilities are currently using.

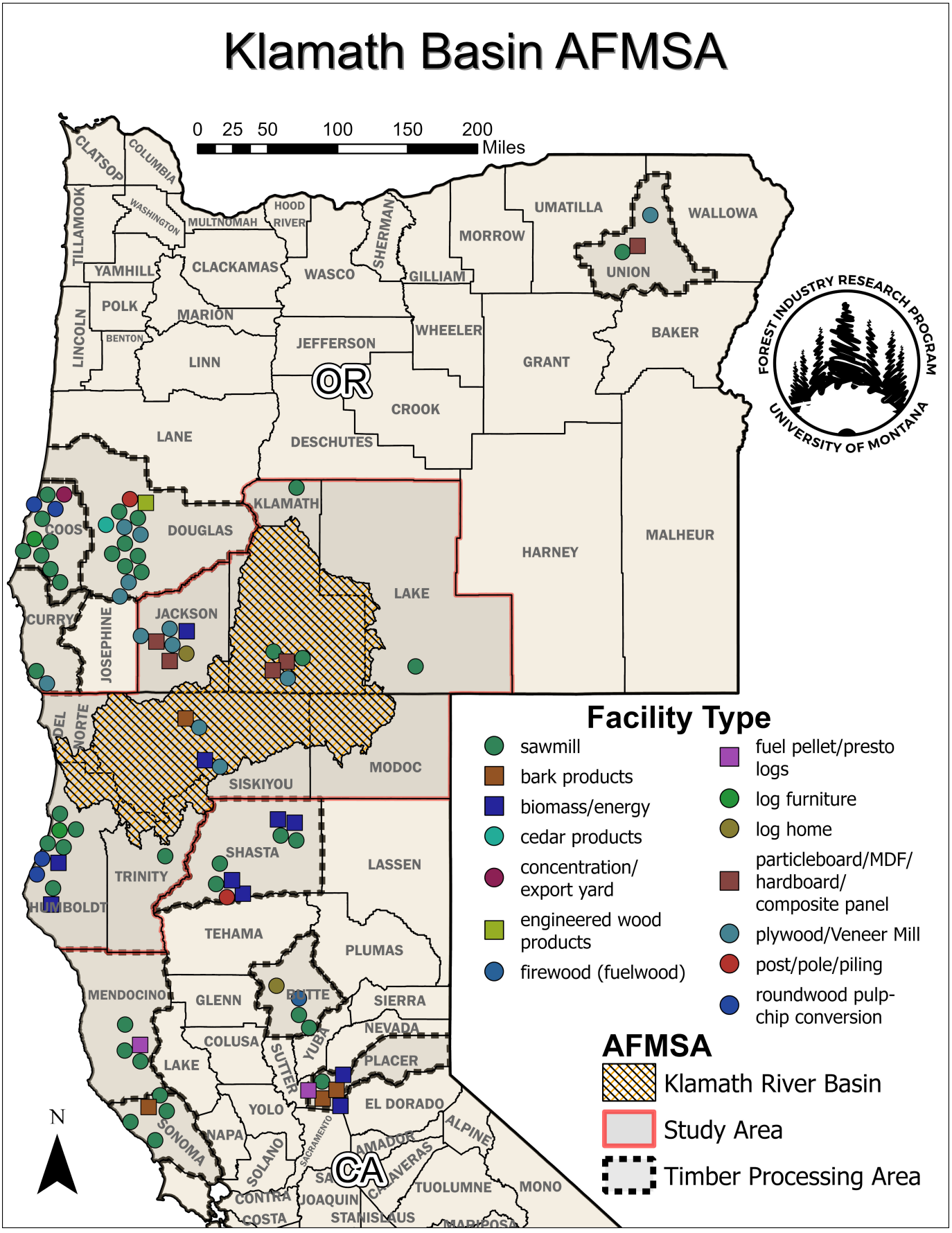

Figure 1. Klamath River Basin AFMSA Landscape, Study Area, Timber Processing Area, and facility locations

KLAMATH RIVER BASIN STUDY AREA COUNTIES

Table 1. Klamath River Basin Study Area counties

County	State
Del Norte	CA
Humboldt	CA
Modoc	CA
Siskiyou	CA
Trinity	CA
Jackson	OR
Klamath	OR
Lake	OR

KLAMATH RIVER BASIN STUDY AREA HARVEST

Table 2. Timber harvest from the Klamath River Basin Study Area counties (all ownerships), by percentage distribution by species (2020-2023)

Species group	2020	2021	2022	2023
Douglas-fir	43%	42%	39%	39%
White fir	24%	19%	21%	21%
Redwood	15%	20%	13%	16%
Ponderosa pine	9%	12%	17%	14%
Lodgepole pine	3%	1%	3%	2%
Sugar pine	3%	4%	5%	5%
Incense-cedar	1%	0%	0%	0%
Tanoak	1%	0%	0%	0%
Western hemlock	0%	1%	1%	1%
Shasta red fir	0%	0%	0%	1%
All species	**100%**	**100%**	**100%**	**100%**

Table 3. Percentage of timber harvest from national forest lands within the Klamath River Basin Study Area, by timber product type (2020-2023)

	----------Percentage from national forests----------			
Timber product type	**2020**	**2021**	**2022**	**2023**
Saw logs	14%	20%	23%	14%
Veneer logs	17%	20%	15%	15%
House logs	0%	0%	0%	0%
Post/pole/furniture logs	50%	0%	0%	0%
Fiberlogs/chips/energy	3%	0%	0%	0%
Firewood	n/a	n/a	n/a	n/a
Study area total	**11%**	**20%**	**20%**	**14%**

KLAMATH RIVER BASIN TIMBER-PROCESSING AREA COUNTIES

Table 4. Klamath River Basin Timber-processing Area (TPA) counties

County	State
Butte	CA
Del Norte	CA
Humboldt	CA
Mendocino	CA
Modoc	CA
Placer	CA
Shasta	CA
Siskiyou	CA
Sonoma	CA
Trintiy	CA
Coos	OR
Curry	OR
Douglas	OR
Jackson	OR
Klamth	OR
Lake	OR
Union	OR

KLAMATH RIVER BASIN TIMBER-PROCESSING AREA FACILITIES LIST

Table 5. Timber-processing facilities within the Klamath River Basin TPA (2025)

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
SPI - Oroville Sawmill	Active	sawmill	CA	Butte	5000 MCF or more	Yes
Hot Wood - California	Active	firewood (fuelwood)	CA	Butte	1000 TO 4999 MCF	Yes
Sierra Log Homes	Active	log home	CA	Butte	<250 MCF	Yes
Apex Lumber Co	Active	sawmill	CA	Butte	<250 MCF	Yes
TRL - North Fork Lumber Co	Active	sawmill	CA	Humboldt	5000 MCF or more	Yes
TRL - Schmidbauer Lumber Inc	Active	sawmill	CA	Humboldt	5000 MCF or more	Yes
Humboldt Sawmill Company	Active	sawmill	CA	Humboldt	5000 MCF or more	Yes
DG Fairhaven Power Company	Active	biomass/energy	CA	Humboldt	No Roundwood	No
Arcata Forest Products	Active	sawmill	CA	Humboldt	500 TO 999 MCF	Yes
Humboldt Sawmill Company - Cogen	Active	biomass/energy	CA	Humboldt	1000 TO 4999 MCF	Yes
Mad River Lumber	Active	sawmill	CA	Humboldt	1000 TO 4999 MCF	Yes
Redwood Burl	Active	log furniture	CA	Humboldt	<250 MCF	Yes
Green Diamond - Fairhaven Export	Active	roundwood pulp-chip conversion	CA	Humboldt	No Roundwood	No
Green Diamond – Samoa Chipping	Active	roundwood pulp-chip conversion	CA	Humboldt	500 TO 999 MCF	Yes
Willits Redwood Company	Active	sawmill	CA	Mendocino	1000 TO 4999 MCF	Yes
Mendocino Forest Products - Ukiah	Active	sawmill	CA	Mendocino	5000 MCF or more	Yes
MFP - Forest Energy Mendocino	Active	fuel pellet/presto logs	CA	Mendocino	No Roundwood	No
SPI - Lincoln Sawmill	Active	sawmill	CA	Placer	5000 MCF or more	Yes
SPI - Lincoln Cogen	Active	biomass/energy	CA	Placer	No Roundwood	No
Rio Bravo Rocklin	Active	biomass/energy	CA	Placer	No Roundwood	No
Mallard Creek - Bark	Active	bark products	CA	Placer	No Roundwood	No
Mallard Creek - Animal Bedding	Active	bark products	CA	Placer	No Roundwood	No
Mallard Creek - Pellets	Active	fuel pellet/presto logs	CA	Placer	No Roundwood	No
Shasta Green Inc.	Active	sawmill	CA	Shasta	5000 MCF or more	Yes
SPI - Burney Sawmill	Active	sawmill	CA	Shasta	5000 MCF or more	Yes
SPI - Anderson Sawmill	Active	sawmill	CA	Shasta	5000 MCF or more	Yes
SPI - Shasta Lake Sawmill	Active	sawmill	CA	Shasta	5000 MCF or more	Yes
SPI - Anderson Pole	Active	post/pole/piling	CA	Shasta	1000 TO 4999 MCF	Yes
Burney Forest Products	Active	biomass/energy	CA	Shasta	No Roundwood	No
Shasta-Sustainable Resource Management, Inc.	Active	biomass/energy	CA	Shasta	<250 MCF	Yes
SPI - Burney Cogen	Active	biomass/energy	CA	Shasta	No Roundwood	No
SPI - Anderson Cogen	Active	biomass/energy	CA	Shasta	No Roundwood	No

Table 5. Timber-processing facilities within the Klamath River Basin TPA (2025), continued

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
Timber Products Company - Yreka	Active	plywood/Veneer Mill	CA	Siskiyou	5000 MCF or more	Yes
Roseburg Forest Products - Weed Veneer	Active	plywood/Veneer Mill	CA	Siskiyou	5000 MCF or more	Yes
Shasta Forest Products Inc	Active	bark products	CA	Siskiyou	No Roundwood	No
Roseburg Forest Products - Weed Cogen	Active	biomass/energy	CA	Siskiyou	No Roundwood	No
Agwood Mill & Lumber	Active	sawmill	CA	Sonoma	1000 TO 4999 MCF	Yes
Redwood Empire - Cloverdale	Active	sawmill	CA	Sonoma	5000 MCF or more	Yes
Berry's Sawmill Inc	Active	sawmill	CA	Sonoma	<250 MCF	Yes
Reuser Inc	Active	bark products	CA	Sonoma	No Roundwood	No
Falk Forestry Services	Active	sawmill	CA	Sonoma	<250 MCF	Yes
Redwood Empire - Asti Fence Plant	Active	sawmill	CA	Sonoma	1000 TO 4999 MCF	Yes
TRL - Trinity River Lumber Co	Active	sawmill	CA	Trinity	5000 MCF or more	Yes
Rose City Wood Products	Active	sawmill	OR	Coos	1000 TO 4999 MCF	Yes
Oregon Overseas Timber Co., Inc.	Active	sawmill	OR	Coos	1000 TO 4999 MCF	Yes
Wolverine Wood Products	Active	sawmill	OR	Coos	<250 MCF	Yes
Slice Recovery	Active	sawmill	OR	Coos	250 TO 499 MCF	Yes
Shingle House Sawmill	Active	sawmill	OR	Coos	<250 MCF	Yes
East Fork Lumber Company Inc	Active	sawmill	OR	Coos	500 TO 999 MCF	Yes
Roseburg Forest Products - Coquille Plywood	Active	plywood/Veneer Mill	OR	Coos	5000 MCF or more	Yes
Wilson Operation & Coastal Fibre - Coos Bay	Active	roundwood pulp-chip conversion	OR	Coos	5000 MCF or more	Yes
Southport Lumber Co - North Bend	Active	sawmill	OR	Coos	5000 MCF or more	Yes
Exotic Burl	Inactive	log furniture	OR	Coos	<250 MCF	Yes
Southport Forest Products - Chipping	Active	roundwood pulp-chip conversion	OR	Coos	<250 MCF	Yes
Weyerhaeuser Log Exports - Coos Bay	Active	concentration/export yard	OR	Coos	5000 MCF or more	Yes
South Coast Lumber Company - Sawmill	Active	sawmill	OR	Curry	5000 MCF or more	Yes
SouthCoast Lumber & Pacific Laminates	Active	plywood/Veneer Mill	OR	Curry	5000 MCF or more	Yes
Herbert Lumber Company	Active	sawmill	OR	Douglas	5000 MCF or more	Yes
Keller Lumber	Active	Sawmill	OR	Douglas	1000 TO 4999 MCF	Yes
Swanson Group - Roseburg Sawmill	Active	sawmill	OR	Douglas	5000 MCF or more	Yes
Swanson Group - Glendale Plywood	Active	plywood/Veneer Mill	OR	Douglas	5000 MCF or more	Yes
Umpqua Lumber Company	Active	sawmill	OR	Douglas	1000 TO 4999 MCF	Yes
DR Johnson Lumber Company	Active	sawmill	OR	Douglas	5000 MCF or more	Yes
Douglas County Forest Products	Active	sawmill	OR	Douglas	5000 MCF or more	Yes
Nordic Veneer, Inc. (Veneer)	Active	plywood/Veneer Mill	OR	Douglas	5000 MCF or more	Yes
McFarland Cascade - Wilbur Pole Facility	Active	post/pole/piling	OR	Douglas	1000 TO 4999 MCF	Yes
Roseburg Forest Products - Dillard Studmill	Active	sawmill	OR	Douglas	5000 MCF or more	Yes
Roseburg Forest Products - Riddle Plywood	Active	plywood/Veneer Mill	OR	Douglas	5000 MCF or more	Yes
Murphy- Southerlin EWP	Active	engineered wood products	OR	Douglas	No Roundwood	No
Boise Cascade - White City Veneer	Active	plywood/Veneer Mill	OR	Jackson	5000 MCF or more	Yes
Timber Products Company - Medford Particleboard	Active	particleboard/MDF/hardboard/composite panel	OR	Jackson	No Roundwood	No
Roseburg - SierraPine - Medite (MDF)	Active	particleboard/MDF/hardboard/composite panel	OR	Jackson	No Roundwood	No

Table 5. Timber-processing facilities within the Klamath River Basin TPA (2025), continued

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
Biomass One, LP	Active	biomass/energy	OR	Jackson	No Roundwood	No
Murphy Plywood - White City	Active	plywood/Veneer Mill	OR	Jackson	5000 MCF or more	Yes
Homestead Log home Inc.	Active	log home	OR	Jackson	<250 MCF	Yes
Murphy Plywood - Rogue River	Active	plywood/Veneer Mill	OR	Jackson	No Roundwood	No
Cook Woods	Active	sawmill	OR	Klamath	<250 MCF	Yes
Columbia Forest Products - Columbia Plywood	Active	plywood/Veneer Mill	OR	Klamath	5000 MCF or more	Yes
Gilchrist Forest Products (Neiman Enterprises)	Active	sawmill	OR	Klamath	5000 MCF or more	Yes
Thomas Lumber Company - Division of Jeld Wen	Active	sawmill	OR	Klamath	5000 MCF or more	Yes
Collins Products LCC	Active	particleboard/MDF/hardboard/composite panel	OR	Klamath	No Roundwood	No
Collins Products LCC - Hardboard	Active	particleboard/MDF/hardboard/composite panel	OR	Klamath	No Roundwood	No
Collins Pine - Lakeview Sawmill	Active	sawmill	OR	Lake	5000 MCF or more	Yes
Woodgrain Millwork - La Grande	Active	sawmill	OR	Union	1000 TO 4999 MCF	Yes
Boise Cascade Elgin Plywood	Active	plywood/Veneer Mill	OR	Union	5000 MCF or more	Yes
Woodgrain - Particleboard	Active	particleboard/MDF/hardboard/composite panel	OR	Union	No Roundwood	No

TIMBER RECEIVED BY TIMBER-PROCESSING FACILITIES IN THE KLAMATH RIVER BASIN TIMBER-PROCESSING AREA

Table 6. Timber received by facilities in the Klamath River Basin TPA, percentage distribution by species (2020-2023)

Species group	2020	2021	2022	2023
Douglas-fir	43%	42%	39%	39%
White fir	24%	19%	21%	21%
Redwood	15%	20%	13%	16%
Ponderosa pine	9%	12%	17%	14%
Lodgepole pine	3%	1%	3%	2%
Sugar pine	3%	4%	5%	5%
Incense-cedar	1%	0%	0%	0%
Tanoak	1%	0%	0%	0%
Western hemlock	0%	1%	1%	1%
Shasta red fir	0%	0%	0%	1%
All species	**100%**	**100%**	**100%**	**100%**

Table 7. Percentage of timber from national forests received by facilities in the Klamath River Basin TPA, by timber product group (2020-2023)

	----------Percentage from national forests----------			
Timber product type	**2020**	**2021**	**2022**	**2023**
Firewood	100%	0%	0%	0%
Energy wood chipped in woods	15%	0%	0%	0%
Sawlog	13%	11%	10%	8%
House log	12%	12%	12%	12%
Veneer log	11%	10%	11%	15%
Pulpwood log	0%	0%	0%	0%
Furniture log	0%	0%	0%	0%
Energywood log	0%	0%	18%	0%
Piling/utility pole	0%	0%	0%	0%
TPA total	**13%**	**10%**	**10%**	**9%**

TIMBER-PROCESSING CAPACITY AND CAPABILITY OF TIMBER-PROCESSING FACILITIES WITHIN THE KLAMATH RIVER BASIN TIMBER-PROCESSING AREA

Table 8. Timber-processing capacity and capability by tree dbh class of facilities in the Klamath River Basin TPA, by county or county group (2021, 2022)

	---------Thousand board feet, Scribner (MBF)---------			----------Hundred cubic feet (CCF)----------		
Timber Processing Area	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh
California	**25,875**	**155,591**	**1,192,318**	**54,038**	**315,602**	**2,367,616**
Butte	254	6,022	33,411	724	13,927	66,162
Humboldt	3,124	23,081	315,323	8,132	49,972	625,954
Mendocino	562	14,241	50,443	1,114	28,200	99,886
Placer	2,193	17,544	199,561	4,343	34,740	395,171
Shasta & Trinity	6,888	64,092	425,697	13,640	126,893	842,435
Siskiyou	12,094	24,187	110,022	24,581	49,161	223,622
Sonoma	760	6,424	57,860	1,505	12,710	114,386
Oregon	**20,670**	**210,306**	**1,435,661**	**73,787**	**551,771**	**3,347,933**
Coos	15,314	40,573	164,466	61,300	151,818	398,560
Curry	-	12,558	164,760	-	30,065	384,291
Douglas	3,644	66,537	733,362	8,725	159,162	1,713,797
Jackson	1,711	13,656	128,024	3,759	29,884	281,130
Klamath & Lake	1	58,582	165,582	2	139,712	391,585
Union	-	18,400	79,468	-	41,130	178,571
Total	**46,545**	**365,897**	**2,627,978**	**127,825**	**867,374**	**5,715,549**

Table 9. Timber-processing capacity and capability by tree dbh class of facilities in the Klamath River Basin TPA, by timber product type (2021, 2022)

	---------Thousand board feet, Scribner (MBF)---------			----------Hundred cubic feet (CCF)----------		
Timber product type	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh
Saw logs	15,149	268,508	1,950,998	31,631	591,578	4,227,289
Veneer logs	13,804	55,300	636,791	28,340	117,540	1,381,356
House logs & piling or utility poles	-	1,248	26,483	-	2,500	53,617
Othera	17,592	40,841	13,707	67,854	155,756	53,287
Total	**46,545**	**365,897**	**2,627,978**	**127,825**	**867,374**	**5,715,549**

Table 10. Total timber-processing capacity, timber consumption, and capacity utilization of facilities in the Klamath River Basin TPA, by dbh class (2021, 2022)

	----Capacity to process timber-----		--------Timber consumption---------		
Tree dbh	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)	**Capacity utilization**
<7 in.	46,545	127,825	7,166	20,337	16%
7 - 9.9 in.	365,897	867,374	170,198	397,098	46%
≥10 in.	2,627,978	5,715,549	2,255,664	4,860,994	85%
Total	**3,040,420**	**6,710,748**	**2,433,028**	**5,278,429**	**79%**

Table 11. Unused timber-processing capacity of facilities in the Klamath River Basin TPA, by county or county group (2021, 2022)

Timber Processing Area	**Thousand board feet, Scribner (MBF)**	**Hundred cubic feet (CCF)**
California	**207,821**	**414,301**
Butte	11,971	24,076
Humboldt	83,079	166,167
Mendocino	1,125	2,227
Placer	39,298	77,818
Shasta & Trinity	49,398	97,723
Siskiyou	19,759	40,161
Sonoma	3,191	6,128
Oregon	**399,572**	**1,018,023**
Coos	81,529	269,315
Curry	4,633	10,444
Douglas	211,135	498,152
Jackson	10,447	22,704
Klamath & Lake	76,172	182,299
Union	36,455	35,108
Total	**607,393**	**1,432,324**

Table 12. Unused timber-processing capacity of facilities in the Klamath River Basin TPA, by timber product type (2021, 2022)

Timber product type	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Saw logs	460,348	1,025,715
Veneer logs	92,068	199,081
House logs & piling or utility poles	5,894	11,947
Other[a]	49,082	195,580
Total	**607,393**	**1,432,324**

[a]Other timber product types includes firewood, furniture logs, and pulpwood.

RESIDUALS GENERATED BY TIMBER-PROCESSING FACILITIES IN THE KLAMATH RIVER BASIN TIMBER-PROCESSING AREA

Table 13. Mill residuals generated by timber-processing facilities within the Klamath River Basin TPA (2021, 2022)

	BDUs[a]	Percent of total volume
Utilized residuals volume	3,178,969	100.00%
Unutilized residuals volume	65	0.00%
Total volume generated	**3,179,033**	**100%**

[a] One bone dry unit (BDU)= 2,400 pounds of oven-dry wood or bark.

Table 14. Mill residuals generated by timber-processing facilities within the Klamath River Basin TPA, by type of residual (2021, 2022)

Type of residual	BDUs[a]	Percent of total volume
Coarse[b]	1,525,649	48%
Fine[c]	791,303	25%
Bark	862,082	27%
Total, all residual types	**3,179,033**	**100%**

[a] One bone dry unit (BDU) = 2,400 pounds of oven-dry wood or bark.

[b] Includes slabs, edgings, and trimmings from lumber manufacturing; log ends; pieces of veneer not suitable for manufacturing plywood; and plywood peeler cores not sawn into lumber.

[c] Includes sawdust, peelings and shavings.

Table 15. Mill residuals generated by timber-processing facilities within the Klamath River Basin TPA, by type of utilization (2021, 2022)

Type of utilization	BDUs[a]	Percent of total volume
Fuel[b]	1,465,445	46%
Fiber[c]	1,214,795	38%
Decorative landscaping	165,594	5%
Mulch/soil addititves	165,058	5%
Sold as raw material for other products	79,784	3%
Animal bedding	73,247	2%
Used on-site for other products	15,044	0%
Unused	65	0%
Total, all types of utilization	**3,179,033**	**100%**

[a] One bone dry unit (BDU) = 2,400 pounds of oven-dry wood or bark.

[b] Includes firewood, biomass, hogfuel, and pellets.

[c] Includes pulp, composite panels, and MDF.