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Timber Use, Processing Capacity and Capability of Mills to Utilize Timber by Diameter Size Class Within the Kootenai and Idaho Panhandle National Forests Timber-Processing Area

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Introduction

The Kootenai and Idaho Panhandle national forests (KNF-IPNF) contain portions of Benewah, Bonner, Boundary, Kootenai, and Shoshone counties in Idaho, and Lincoln and Sanders counties in Montana. Together, the total combined area of these seven counties constitutes the "Study Area" referred to in this report. Analysis of area timber flow indicates that timber harvested in the KNF-IPNF study area is processed by facilities located both inside and outside the study area. All counties that contain one or more facilities that process timber harvested in the study area constitute the "Timber Processing Area" or TPA. The TPA for the KNF-IPNF includes the seven counties within the study area, as well as Custer, Idaho, Jefferson, Latah, Nez Perce, and Valley counties in Idaho, Flathead, Gallatin, Lake, Lincoln, Mineral, Missoula, Powell, and Ravalli counties in Montana, Union County in Oregon, and Asotin, Ferry, Pend Oreille, Stevens, and Whitman counties in Washington (figure 1).

This report is intended to help land managers better understand the availability of timber-processing capacity within the TPA. This information can help managers utilize timber removals in commercial timber harvests, forest restoration, or hazardous fuels reduction treatments and should enable them to better plan, appraise, advertise, and accomplish stated land management goals.

In what follows, "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 a timber-processing facility's 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 facilities in a common unit of measure. It is estimated from production (output) capacity information provided by the facilities. Capacity estimates in this report 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 fencing), 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. Though mixed-input facilities are excluded from the analysis, they are included in the list of timber-processing facilities and in the map of facilities in the TPA.

"Capability" refers to the volume of trees of a certain size class, measured as diameter at breast height (dbh), that existing timber processors can economically process annually. Some facilities are designed to operate using only trees of a given size class (e.g., veneer/ plywood plants typically only use trees ≥10 inches dbh, and post manufacturers primarily use trees <10 inches dbh). Capability at these facilities is readily classified in just one of the size classes. Many facilities can and do use timber from a variety of size (dbh) classes. The three dbh classes used in this report are <7", 7 to 9.9", and ≥10". It is important to point out that capability in the ≥10" dbh class represents the portion of a mill's overall capacity that cannot process smaller trees, and it is calculated as total capacity minus the sum of the two small-log capability classes.

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

This report is a follow-up to a similar analysis performed for the KNF-IPNF for 2012; however, comparisons between these should not be made as both the TPA and the underlying methodology have changed somewhat in the intervening years.

The data used to develop these summary tables were collected and processed by the University of Montana's Forest Industry Research Program within the Bureau of Business and Economic Research (BBER). Mill- or company-level data are confidential and cannot be released.

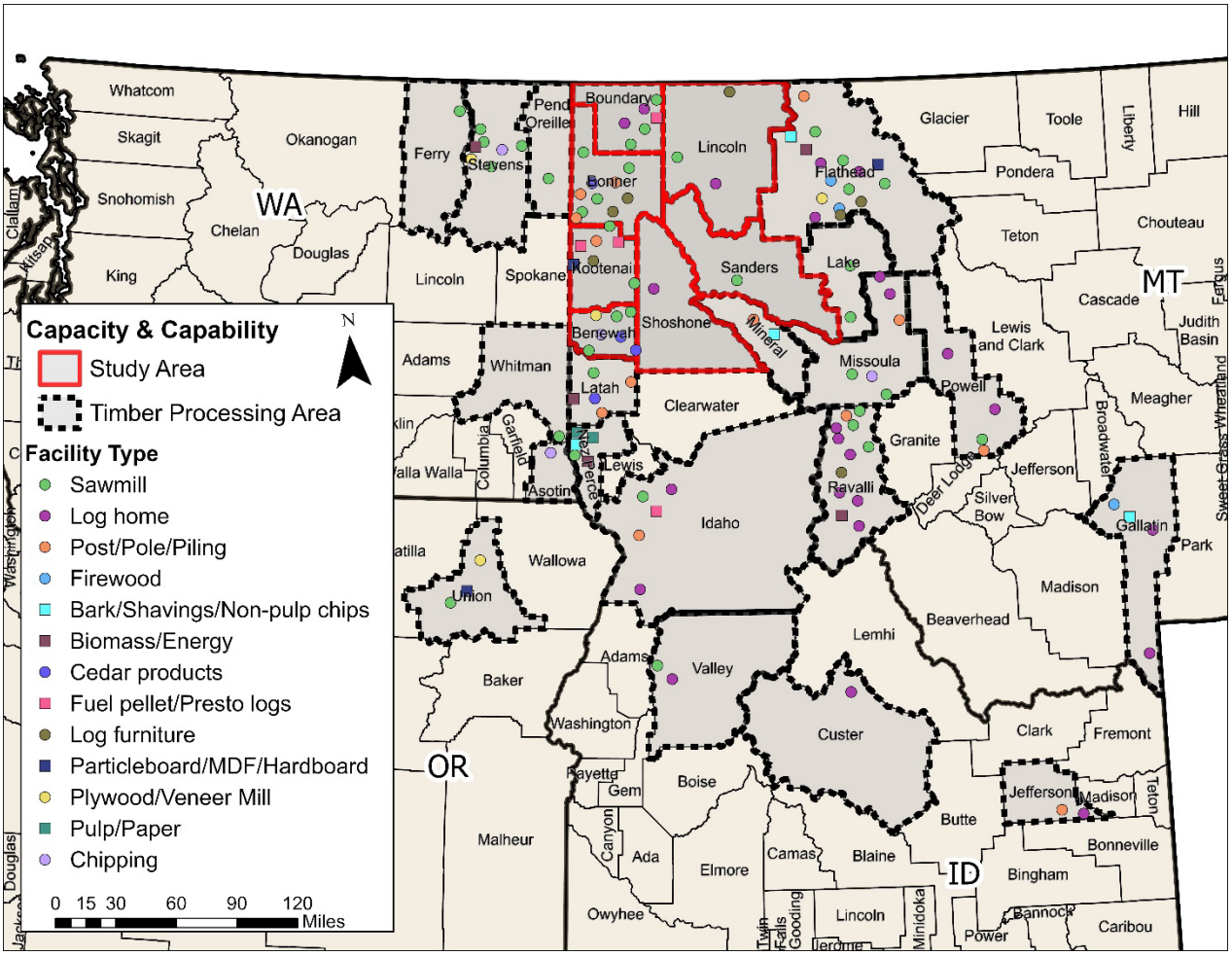

Figure 1 Map of the Kootenai and Idaho Panhandle national forests study area, timber-processing area, and timber-processing facilities.

Study Area

Recent volume of timber harvested from all ownerships in the study area was estimated at 1,071,162 CCF (484,180 MBF) (table 1). National forests contributed 21 percent of the timber harvested in the study area's seven counties (table 2). Of the other ownerships contributing to the harvest, private and tribal timberlands accounted for 55 percent, and state and other public lands contributed 24 percent. Timber from the KNF-IPNF accounted for the majority (87 percent) of the national forest timber harvested from the study area, with the remaining volumes

coming from the Flathead, Lolo, and Nez Perce-Clearwater national forests. The majority (98 percent) of the timber harvested was live standing volume (table 3).

Table 1. All ownership timber harvest by county in the Kootenai and Idaho Panhandle national forests study area, ID 2015, 2019, 2023 and MT 2014, 2018, 2022.

	2015 ID & 2014 MT			2019 ID & 2018 MT			2023 ID & 2022 MT		
Study area	MBF	CCF	Percent	MBF	CCF	Percent	MBF	CCF	Percent
Idaho	**552,705**	**1,265,090**	**83%**	**504,932**	**1,127,450**	**78%**	**401,010**	**866,334**	**81%**
Benewah	121,346	271,804	18%	72,630	157,885	11%	71,830	155,152	14%
Bonner	150,273	347,950	23%	160,280	347,408	24%	96,399	209,356	20%
Boundary	54,809	132,237	9%	45,533	103,651	7%	43,172	91,754	9%
Kootenai	95,707	213,641	14%	100,484	210,466	14%	51,371	110,663	10%
Shoshone	130,571	299,458	20%	126,004	308,040	21%	138,238	299,409	28%
Montana	**100,035**	**253,667**	**17%**	**135,357**	**325,727**	**22%**	**83,170**	**204,828**	**19%**
Lincoln	59,960	154,901	10%	79,671	188,808	13%	58,989	146,534	14%
Sanders	40,075	98,766	7%	55,686	136,919	9%	24,181	58,294	5%
Study area total	**652,740**	**1,518,758**	**100%**	**640,289**	**1,453,177**	**100%**	**484,180**	**1,071,162**	**100%**

Table 2. Kootenai and Idaho Panhandle national forests harvest by ownership and product type, 2020 through 2023.

	2020			2021			2022			2023		
Timber product group	**Private**	**National Forest**	**Other public & State**	**Private**	**National Forest**	**Other public & State**	**Private**	**National Forest**	**Other public & State**	**Private**	**National Forest**	**Other public & State**
Saw logs	69%	16%	16%	68%	15%	17%	63%	15%	22%	54%	22%	24%
Veneer logs	68%	14%	18%	63%	14%	23%	75%	10%	15%	69%	20%	11%
Cedar logs	34%	0%	66%	30%	0%	70%	24%	0%	76%	75%	19%	6%
House	63%	33%	4%	59%	36%	5%	36%	57%	8%	91%	6%	3%
Post/Pole/furniture logs	41%	48%	12%	23%	52%	25%	22%	60%	18%	38%	23%	39%
Piling/utility pole	55%	0%	45%	21%	0%	79%	21%	0%	79%	51%	0%	49%
Fiberlogs/chips/energy	50%	17%	32%	64%	11%	25%	64%	17%	19%	61%	0%	39%
Firewood	n/a	n/a	n/a	n/a	n/a	n/a	0%	100%	0%	n/a	n/a	n/a
Study area total	**67%**	**15%**	**19%**	**66%**	**14%**	**20%**	**62%**	**15%**	**23%**	**55%**	**21%**	**24%**

Table 3. All ownership percent harvested dead in the Kootenai and Idaho Panhandle national forests study area, 2020 through 2023.

Study area	**2020**	**2021**	**2022**	**2023**
Idaho	**0%**	**0%**	**1%**	**1%**
Benewah	1%	1%	1%	1%
Bonner	0%	0%	0%	1%
Boundary	0%	0%	0%	0%
Kootenai	1%	0%	1%	0%
Shoshone	0%	1%	1%	1%
Montana	**5%**	**3%**	**5%**	**5%**
Lincoln	3%	2%	5%	5%
Sanders	10%	5%	6%	6%
Study area total	**1%**	**1%**	**1%**	**2%**

The species harvested in the study area were predominantly Douglas-fir, followed by true firs, western redcedar, western hemlock, and western larch (83 percent) (table 4). The remaining species mix consisted of pines, spruce, and unknown species.

Table 4. Species composition of harvest in the Kootenai and Idaho Panhandle national forests study area, 2020 through 2023.

Species Group	2020	2021	2022	2023
Douglas-fir	31%	33%	32%	31%
True firs	27%	25%	25%	21%
Western redcedar	11%	11%	9%	11%
Western hemlock	7%	6%	7%	11%
Western larch	9%	9%	9%	9%
Ponderosa pine	5%	7%	8%	8%
Lodgepole pine	6%	6%	6%	6%
Western white pine	1%	1%	1%	2%
Engelmann spruce	2%	1%	2%	2%
Other species	0%	2%	0%	0%
Study area total	**100%**	**100%**	**100%**	**100%**

Timber-Processing Area (TPA)

A total of 115 primary wood products facilities operate within the TPA, 96 of which receive only roundwood (table 5), and 65 of which reported receiving timber from the study area over the last five years. Thirty-three of the 65 facilities receiving timber from the TPA were located within the seven-county study area.

Table 5. Kootenai and Idaho Panhandle national forests TPA facilities.

Facility name	Status	Facility Type	State	County	Input size class
American Cedar	Active	cedar products	ID	Benewah	500 TO 999 MCF
DLM Shake	Active	cedar products	ID	Benewah	<250 MCF
PotlatchDeltic--St Maries (lumber)	Active	sawmill	ID	Benewah	5000 MCF or more
PotlatchDeltic--St. Maries (plywood)	Active	plywood/Veneer Mill	ID	Benewah	5000 MCF or more
Roland Timber Company	Inactive	sawmill	ID	Benewah	<250 MCF
Stimson Lumber Company (St. Maries)	Active	sawmill	ID	Benewah	5000 MCF or more
Swan Lake Fiber	Active	roundwood pulp-chip conversion	ID	Benewah	1000 TO 4999 MCF
Barretts Busy B	Active	cedar products	ID	Bonner	<250 MCF
Bell Lumber & Pole - Oldtown	Active	post/pole/piling	ID	Bonner	250 TO 499 MCF
Idaho Forest Group - Laclede	Active	sawmill	ID	Bonner	5000 MCF or more
Johns Rough Cut	Active	log furniture	ID	Bonner	<250 MCF
Misty Mountain Furniture	Active	log furniture	ID	Bonner	<250 MCF
Panhandle Forest Products	Active	post/pole/piling	ID	Bonner	250 TO 499 MCF
Priest Lake Lumber Company, Inc.	Inactive	sawmill	ID	Bonner	<250 MCF
Specialty Beams	Active	sawmill	ID	Bonner	<250 MCF
Stella Jones - McFarland Cascade Sandpoint	Active	post/pole/piling	ID	Bonner	1000 TO 4999 MCF
Stimson Lumber Company (Priest River)	Active	sawmill	ID	Bonner	5000 MCF or more
Alta Forest Products LLC	Active	sawmill	ID	Boundary	5000 MCF or more
Caribou Creek Log & Timber	Active	log home	ID	Boundary	<250 MCF
Idaho Forest Group - Moyie Springs	Active	sawmill	ID	Boundary	5000 MCF or more
North Idaho Energy Logs, Inc.	Active	fuel pellet/presto logs	ID	Boundary	No Roundwood
Structures Unlimited, Inc.	Inactive	log home	ID	Boundary	<250 MCF
Thick 'N' Thin Beams and Lumber	Active	sawmill	ID	Boundary	<250 MCF
Pedersen Logsmiths, Inc.	Active	log home	ID	Custer	<250 MCF
Frye Custom Log Homes	Active	log home	ID	Idaho	<250 MCF
Idaho Forest Group - Grangeville	Active	sawmill	ID	Idaho	5000 MCF or more
Pineda Post and Poles	Active	post/pole/piling	ID	Idaho	250 TO 499 MCF
Pleasant Valley Log Homes	Active	log home	ID	Idaho	250 TO 499 MCF
Rocky Canyon Pellets/Rosebud Horse Bedding	Active	fuel pellet/presto logs	ID	Idaho	No Roundwood
Cooley Brothers, Inc.	Active	post/pole/piling	ID	Jefferson	<250 MCF
Yellowstone Log Homes	Active	log home	ID	Jefferson	250 TO 499 MCF
Idaho Forest Group - Chilco	Active	sawmill	ID	Kootenai	5000 MCF or more
Lignetics, Inc.	Active	fuel pellet/presto logs	ID	Kootenai	No Roundwood
North Idaho Energy Logs, Inc	Active	fuel pellet/presto logs	ID	Kootenai	No Roundwood
North Idaho Log Furniture Co.	Active	log furniture	ID	Kootenai	<250 MCF
North Idaho Post and Pole	Active	post/pole/piling	ID	Kootenai	<250 MCF
Plummer Forest Products	Active	particleboard/MDF	ID	Kootenai	No Roundwood
Whiteman Lumber Company, Inc.	Active	sawmill	ID	Kootenai	500 TO 999 MCF
Bennett Lumber Products - Princeton ID	Active	sawmill	ID	Latah	5000 MCF or more
Idaho Cedar Sales LLC	Active	cedar products	ID	Latah	500 TO 999 MCF
Stella-Jones - Julietta	Active	post/pole/piling	ID	Latah	1000 TO 4999 MCF
Timber Works, Inc.	Active	post/pole/piling	ID	Latah	<250 MCF
University of Idaho Steam Plant	Active	biomass/energy	ID	Latah	No Roundwood
Clearwater Paper - Co Gen	Active	biomass/energy	ID	Nez Perce	No Roundwood
Clearwater Paper Corporation	Active	pulp/paper	ID	Nez Perce	No Roundwood
Clearwater Paper Corporation Consumer Products Div	Active	pulp/paper	ID	Nez Perce	No Roundwood
Ground Covers International	Active	bark, shavings, non-pulp chips	ID	Nez Perce	No Roundwood
Idaho Forest Group - Lewiston	Active	sawmill	ID	Nez Perce	5000 MCF or more
Aero Log Homes	Inactive	log home	ID	Shoshone	<250 MCF
Edgewood Fine Log Structures Ltd.	Active	log home	ID	Valley	<250 MCF
Tall Timber	Active	sawmill	ID	Valley	<250 MCF

Facility name	Status	Facility Type	State	County	Input size class
Conkle's Custom Cuts	Active	sawmill	MT	Flathead	<250 MCF
F H Stoltze Land & Lumber Co	Active	sawmill	MT	Flathead	5000 MCF or more
F.H. Stoltze-co-gen facility	Active	biomass/energy	MT	Flathead	No Roundwood
Frontier Log Furniture	Active	log furniture	MT	Flathead	<250 MCF
Glacier Gold, LLC	Active	bark, shavings, non-pulp chips	MT	Flathead	No Roundwood
Glacier Log Mill / Lazarus Log Homes	Active	log home	MT	Flathead	<250 MCF
Kalispell Montana Log Homes, Inc.	Active	log home	MT	Flathead	<250 MCF
Montana Timberline Firewood Co.	Active	firewood (fuelwood)	MT	Flathead	500 TO 999 MCF
Old Style Log Works, Inc.	Active	log home	MT	Flathead	<250 MCF
RBM Logging & Lumber	Active	sawmill	MT	Flathead	250 TO 499 MCF
Simonson's Log Furniture	Active	log furniture	MT	Flathead	<250 MCF
Stillwater Post & Pole	Active	post/pole/piling	MT	Flathead	500 TO 999 MCF
Weyerhaeuser - Columbia Falls MDF	Active	particleboard/MDF	MT	Flathead	1000 TO 4999 MCF
Weyerhaeuser Kalispell Lumber	Active	sawmill	MT	Flathead	5000 MCF or more
Weyerhaeuser Kalispell Plywood	Active	plywood/Veneer Mill	MT	Flathead	5000 MCF or more
Wild Montana Wood	Active	firewood (fuelwood)	MT	Flathead	500 TO 999 MCF
Gone Beaver Handcrafted Logs	Active	log home	MT	Gallatin	<250 MCF
Hilgard Log Builders, Inc.	Active	log home	MT	Gallatin	<250 MCF
S & D Firewood	Active	firewood (fuelwood)	MT	Gallatin	250 TO 499 MCF
Western Pines	Active	bark, shavings, non-pulp chips	MT	Gallatin	No Roundwood
Dupuis Lumber	Active	sawmill	MT	Lake	<250 MCF
Hunts Timber	Active	sawmill	MT	Lake	<250 MCF
Chapel Cedar	Active	sawmill	MT	Lincoln	500 TO 999 MCF
Meadowlark Log Homes	Active	log home	MT	Lincoln	250 TO 499 MCF
Montana Woodworks	Active	log furniture	MT	Lincoln	<250 MCF
Big Sky Forest Products	Active	post/pole/piling	MT	Mineral	<250 MCF
Mountain West, L.L.C.	Active	bark, shavings, non-pulp chips	MT	Mineral	No Roundwood
Advantage Milling	Active	sawmill	MT	Missoula	<250 MCF
Bad Goat	Active	sawmill	MT	Missoula	<250 MCF
Nordique Systems Log Homes	Active	log home	MT	Missoula	<250 MCF
Roundwood West Corporation	Active	post/pole/piling	MT	Missoula	<250 MCF
The Rustics Of Montana	Active	log home	MT	Missoula	<250 MCF
Willis Entrprises, Inc.-Bonner Chip Plant	Active	roundwood pulp-chip conversion	MT	Missoula	1000 TO 4999 MCF
Bard Log Homes	Active	log home	MT	Powell	<250 MCF
Sun Mountain - Deer Lodge	Active	sawmill	MT	Powell	5000 MCF or more
Trout Creek Log Homes	Active	log home	MT	Powell	<250 MCF
Whispering Pines Pole Co. LLC	Active	post/pole/piling	MT	Powell	<250 MCF
Bearly Making It	Active	log furniture	MT	Ravalli	<250 MCF
Darby Public Schools	Active	biomass/energy	MT	Ravalli	<250 MCF
Finlay Lumber	Active	sawmill	MT	Ravalli	<250 MCF
Frontier Posts, LLC	Active	post/pole/piling	MT	Ravalli	250 TO 499 MCF
Master Log Homes	Active	log home	MT	Ravalli	<250 MCF
Montana Custom Log Homes Inc	Active	log home	MT	Ravalli	<250 MCF
Montana Timber Structures	Active	log home	MT	Ravalli	<250 MCF
R & S Milling	Active	sawmill	MT	Ravalli	250 TO 499 MCF
Rocky Mountain Log Homes	Active	log home	MT	Ravalli	250 TO 499 MCF
Rocky Mountain Log Homes - Victor	Active	log home	MT	Ravalli	<250 MCF
Small Diameter Logs Company	Active	log home	MT	Ravalli	<250 MCF
Valley Board & Beam	Active	sawmill	MT	Ravalli	<250 MCF
Thompson River Lumber Co	Active	sawmill	MT	Sanders	1000 TO 4999 MCF
Boise Cascade Elgin Plywood	Active	plywood/Veneer Mill	OR	Union	5000 MCF or more
Woodgrain - Particleboard	Active	particleboard/MDF	OR	Union	No Roundwood
Woodgrain Millwork - La Grande	Active	sawmill	OR	Union	1000 TO 4999 MCF
Clearwater Fiber LLC	Active	roundwood pulp-chip conversion	WA	Asotin	5000 MCF or more
Columbia Cedar, Inc.	Active	sawmill	WA	Ferry	1000 TO 4999 MCF
Vaagen Bros. – Usk sawmill	Active	sawmill	WA	Pend Oreille	5000 MCF or more
Boise Cascade - Arden Lumber Mill	Active	sawmill	WA	Stevens	5000 MCF or more
Boise Cascade - Kettle Falls lumber	Active	sawmill	WA	Stevens	5000 MCF or more
Boise Cascade - Kettle Falls Plywood	Active	plywood/Veneer Mill	WA	Stevens	5000 MCF or more
Kettle Falls Generating Station	Active	biomass/energy	WA	Stevens	No Roundwood
Vaagen Bros. – Colville chipping	Active	roundwood pulp-chip conversion	WA	Stevens	1000 TO 4999 MCF
Vaagen Bros. – Colville sawmill	Active	sawmill	WA	Stevens	5000 MCF or more
WEBLEY LUMBER CO	Active	sawmill	WA	Stevens	No Roundwood
Bennett Lumber Products (Clarkston)	Active	sawmill	WA	Whitman	5000 MCF or more

County grouped with others to prevent disclosure of facility-specific confidential information

The species received by facilities in the TPA were predominantly Douglas-fir, followed by true firs, ponderosa pine, western redcedar, and western larch (85 percent). The remaining species

mix consisted of other pines, western hemlock, Englemann spruce, common juniper, black cottonwood, and unknown species (table 6).

Table 6. Species composition of volume received from all ownership classes by facilities in the Kootenai and Idaho Panhandle national forests TPA, 2020 through 2023.

Species Group	2020	2021	2022	2023
Douglas-fir	40%	42%	39%	34%
True firs	22%	20%	22%	19%
Ponderosa pine	10%	9%	12%	15%
Lodgepole pine	7%	7%	7%	6%
Other pines	1%	1%	1%	1%
Western redcedar	8%	7%	6%	9%
Western larch	7%	7%	7%	8%
Western hemlock	4%	3%	4%	7%
Other species[a]	3%	2%	2%	2%
All species	**100%**	**100%**	**100%**	**100%**

[a]Other species include Engelmann spruce, common juniper, and cottonwood.

National forests provided on average 21 percent of the timber received by mills in the KNF-IPNF TPA (table 7), and accounted for the majority of post, pole, and furniture logs, and firewood logs (65 and 100 percent, respectively) in 2023.

Table 7. Percentage of volume received from national forests by facilities in the Kootenai and Idaho Panhandle national forests TPA by timber product group, 2020 through 2023.

Timber product group	2020	2021	2022	2023
Saw logs	21%	23%	21%	23%
Veneer logs	16%	15%	16%	15%
Cedar logs	0%	0%	0%	4%
House log	61%	60%	74%	39%
Post/Pole/furniture logs	70%	64%	70%	65%
Piling/utility pole	0%	0%	0%	0%
Fiberlogs/chips/energy	26%	24%	23%	22%
Firewood	69%	67%	75%	100%
TPA total	**20%**	**22%**	**21%**	**22%**

TPA Timber-Processing Capacity and Use

The timber-processing capacity of facilities in the KNF-IPNF TPA was estimated as 5,011,364 CCF (2,103,386 MBF) (table 8). Capacity within the study area was 1,483,401 CCF (665,821 MBF), 30 percent of the total capacity in the TPA. Sixty percent (2,970,150 CCF or 1,316,102 MBF) of timber-processing capacity in the KNF-IPNF TPA is not capable of efficiently utilizing trees with dbh less than 10 inches (table 9). Capability to efficiently utilize trees 7 to 9.9 inches dbh accounts for 34 percent of total timber-processing capacity, while 6 percent of total capacity in the TPA can efficiently utilize trees smaller than 7 inches dbh. Facilities in the TPA were estimated to process 3,805,530 CCF (1,653,563 MBF) of timber, indicating that approximately 76 percent of total capacity, within the TPA was used.

Table 8. Most recent timber-processing capacity and use in the Kootenai and Idaho Panhandle national forests TPA.

	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)*	**Most recent utilization**
<7 in.	97,220	317,493	21,609	90,558	29%
7-9.9 in.	690,063	1,723,722	237,527	620,088	36%
≥10 in.	1,316,102	2,970,150	1,394,427	3,094,885	104%
TPA total	**2,103,386**	**5,011,364**	**1,653,563**	**3,805,530**	**76%**

Table 9. Most recent annual timber-processing capacity in the Kootenai and Idaho Panhandle national forests TPA by dbh size class and county.

	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
Idaho	**43,120**	**388,918**	**679,046**	**117,584**	**864,654**	**1,458,536**
Benewah	8,350	57,291	139,993	28,797	146,576	283,533
Bonner	5,051	67,211	98,169	12,424	147,005	212,998
Boundary	13,273	60,244	60,685	28,326	128,577	129,530
Custer, Idaho, Jefferson & Valley	1,325	51,719	102,347	10,388	113,927	219,902
Kootenai	14,161	62,753	67,100	32,360	134,831	143,192
Latah, Nez Perce & Shoshone	959	89,700	210,752	5,290	193,737	469,381
Montana	**30,384**	**115,946**	**177,311**	**100,351**	**331,924**	**430,634**
Flathead	7,925	49,057	117,058	21,986	126,118	270,051
Gallatin	101	954	84	306	2,834	148
Lake, Mineral, Missoula & Sanders	13,383	32,564	21,435	52,793	121,641	67,989
Lincoln	128	399	2,002	546	947	4,783
Powell	6,744	29,661	29,651	17,111	74,365	74,197
Ravalli	2,104	3,311	7,081	7,610	6,018	13,465
Oregon	**-**	**5,869**	**91,998**	**-**	**14,456**	**201,646**
Union	-	5,869	91,998	-	14,456	201,646
Washington	**23,715**	**179,329**	**367,747**	**99,558**	**512,688**	**879,334**
Eastern Washington	23,715	179,329	367,747	99,558	512,688	879,334
TPA total	**97,220**	**690,063**	**1,316,102**	**317,493**	**1,723,722**	**2,970,150**

The unused capacity resides in the < 7” dbh and 7-9.9” dbh size classes. Despite some mills having the ability to process smaller diameter logs, mills within the KNF-IPNF TPA processed more ≥10” dbh logs than their assigned capability, typically indicating a preference for that size class. Even if the mill is capable of processing timber 9.9” dbh and less, it might be economically preferable to process larger logs. Negative unused volumes in the >10” size class indicates there was ample supply of ≥10” dbh logs and it was economically preferable to process that size class (table 10 and 11).

Table 10. Most recent unused timber-processing capacity in the Kootenai and Idaho Panhandle national forest TPA by dbh size class.

	Unused timber-processing capacity	
Tree dbh	*Thousand board feet, Scribner (MBF)*	*Hundred cubic feet (CCF)*
<7 in.	75,611	226,935
7-9.9 in	452,536	1,103,634
≥10 in.	(78,325)	(124,734)
TPA total	**449,823**	**1,205,836**

Table 11. Most recent unused timber-processing capacity by the county and dbh size class in the Kootenai and Idaho Panhandle national forests TPA.

	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
Idaho	**42,371**	**290,249**	**(136,406)**	**111,724**	**650,466**	**(275,925)**
Benewah	8,350	48,476	(33,252)	28,797	127,740	(72,721)
Bonner	4,875	57,202	(42,048)	11,056	124,651	(89,551)
Boundary	13,273	25,597	(4,102)	28,326	54,637	(8,733)
Custer, Idaho, Jefferson & Valley	908	43,558	(4,433)	7,120	94,852	(8,373)
Kootenai	14,161	55,255	(45,753)	32,360	118,495	(97,991)
Latah, Nez Perce & Shoshone	802	60,162	(6,818)	4,066	130,091	1,446
Montana	**19,153**	**67,555**	**40,696**	**57,850**	**203,130**	**100,528**
Flathead	6,446	11,186	41,536	18,231	27,030	93,989
Gallatin	101	(35)	19	306	(165)	8
Lake, Mineral, Missoula & Sanders	5,561	28,450	1,101	21,080	109,026	13,063
Lincoln	47	390	(116)	201	909	(344)
Powell	6,582	24,839	(4,282)	16,526	62,160	(10,724)
Ravalli	416	2,726	2,438	1,506	4,169	4,537
Oregon	**-**	**(1,120)**	**16,777**	**-**	**(415)**	**34,920**
Union	-	(1,120)	16,777	-	(415)	34,920
Washington	**14,088**	**95,852**	**609**	**57,361**	**250,453**	**15,743**
Eastern Washington	14,088	95,852	609	57,361	250,453	15,743
TPA total	**75,611**	**452,536**	**(78,325)**	**226,935**	**1,103,634**	**(124,734)**

Capability to process trees less than 7 inches dbh tends to be concentrated among facilities that produce pulp chips, studs, and posts and poles. Generally, it is less capital intensive (i.e. less expensive) to increase chipping or post and pole capacity than to re-fit a larger sawmill to process smaller diameter logs into lumber. However, demand for roundwood pulpwood tends to move counter-cyclically with demand for lumber since roundwood pulp-chips are a substitute for mill residuals as a raw material input for pulp and paper mills. Thus, when demand for lumber is strong, mills may not be able to increase their utilization of small diameter trees to the same degree that roundwood pulp-chip facilities can when lumber demand is weak.

Conclusion

Many of the facilities throughout the Northern Region are included in the timber processing areas of more than one national forest and the sum of the capacity and capability of all the individual national forests is greater than the total for the region. The region-wide report (forthcoming) provides information on total capacity and capability for the entire region. Therefore, the timber planning staff at the regional, forest, and district levels should coordinate and share information about prospective projects and potential buyers to prevent offering more timber, particularly in the small size classes, than can be processed.

Resources

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