



**FOREST INDUSTRY
RESEARCH PROGRAM**
UNIVERSITY OF MONTANA

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

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Introduction

In recent years, fires and insect outbreaks have been the leading source of tree mortality from natural causes in Montana, totaling 932 million cubic feet on average annually (MT DNRC, 2020). In the counties where the Lolo and Bitterroot National Forests (NF) are located, annual mortality across all ownerships from insect and disease on timberland¹ is estimated to be 124 million cubic feet, accounting for 52 percent of total annual mortality in the study area (USDA, 2021). Mortality caused by wildfires is estimated at 88 million cubic feet annually, accounting for another 37 percent of total mortality. In comparison, logging and other human-caused mortality accounted for only 6 percent of total annual mortality; remaining mortality is from other (i.e. weather, animals, vegetation) or unknown causes (USDA, 2021).

The states and the U.S. Forest Service have increased investments in forest health, hazardous fuels mitigation and safety protection on private and public lands through Governor Bullock's Forests in Focus investments and more recently through the Shared Stewardship Initiative launched by the USDA Forest Service. These treatments, designed to restore ecological condition and function and reduce fire hazard, often require the removal of a mix of timber valuable enough to offset some of the costs along with smaller trees with limited value and markets (Wagner et al. 2000).

The loss of milling infrastructure throughout the West during the 1990s and 2000s, combined with changing management objectives and resource conditions on federal lands, has raised questions about the industry's ability to purchase and use timber of varying sizes and quality at a rate adequate for forest management goals and economically sustainable for the industry (Keegan et al. 2005; Keegan et al. 2006). The growing need to treat millions of acres in the western United States to meet management objectives has made accurate information on timber milling capacity and the capability of mills to handle timber of various sizes an important consideration for managers.

¹ Timberland: Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. (Note: Areas qualifying as timberland are capable of producing at least 20 cubic feet per acre per year of industrial wood in natural stands. Currently inaccessible and inoperable areas are included.)

Goals and Objectives

This report was prepared by the Forest Industry Research Program at the University of Montana's Bureau of Business and Economic Research (BBER) as a forest planning support document for the Lolo and Bitterroot National Forests (hereinafter Lolo and Bitterroot NF) and seeks to:

1. examine the harvest of timber from the counties containing Lolo and Bitterroot NF timberland – the “study area”;
2. analyze the timber flow and identify the Lolo and Bitterroot NF “timber-processing area” – the counties containing facilities that received timber harvested from the study area; and
3. describe the number and types of facilities and quantify their total capacity to process timber, their capability to use timber of various sizes, and their capacity utilization rates. The study focuses on facilities that exclusively use timber in round form (i.e., logs). Facilities that use only mill residuals (e.g., sawdust or chips) are not included.

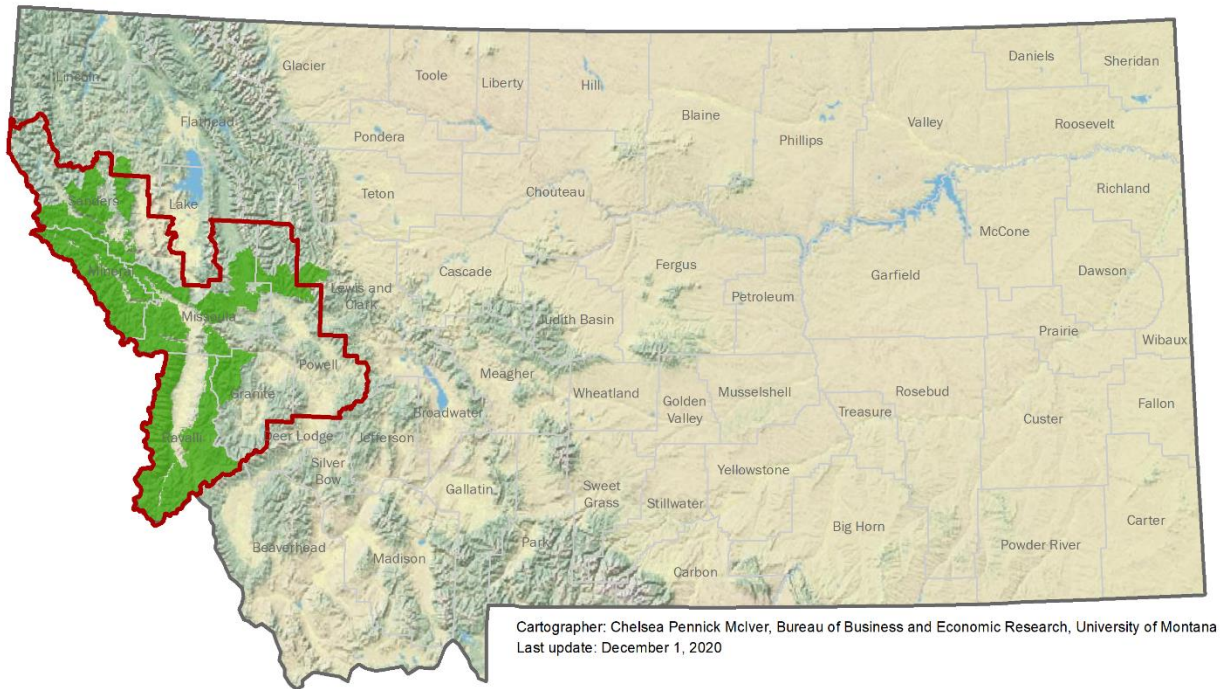


Figure 1 – Lolo and Bitterroot National Forests and Study Area.

Lolo and Bitterroot National Forest Study Area

The Lolo and Bitterroot NF study area is situated in the western region of Montana, spreading over six counties: Granite, Mineral, Missoula, Powell, Ravalli and Sanders (figure 1). The resulting study area contains approximately 5.8 million acres of timberland (USDA 2021), of which 67 percent (3.9 million acres) is managed by the USDA Forest Service (table 1).

Table 1 – Acres of timberland¹ by county and ownership in the Lolo-Bitterroot NF Study Area.

County	National Forest	Private	Bureau of Land Management	State	County or Municipal	Total
Granite	512,678	136,232	26,368	21,506	0	696,784
Mineral	665,116	10,953	0	60,464	0	736,533
Missoula	652,301	454,645	19,522	182,380	4,495	1,313,343
Powell	374,730	178,363	80,624	60,042	0	693,759
Ravalli	833,342	90,746	0	37,254	0	961,342
Sanders	875,903	462,342	0	64,237	0	1,402,482
Grand Total	3,914,070	1,333,281	126,514	425,883	4,495	5,804,243

¹Timberland: Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. (Note: Areas qualifying as timberland are capable of producing at least 20 cubic feet per acre per year of industrial wood in natural stands. Currently inaccessible and inoperable areas are included.).

Source: USDA Forest Service, Forest Inventory and Analysis Program, Tue Jan 29 20:47:43 GMT 2019. Forest Inventory EVALIDator web-application Version 1.8.0.00. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. [Available only on internet: <http://fsxopsx1056.fdc.fs.usda.gov:9001/EvalIdator/evalIdator.jsp>].

The total volume of timber harvested and utilized from all ownerships in the study area was estimated at 380,463 CCF (146,258 MBF) in 2018 (table 2). National forests contributed 40 percent (149,203 CCF) of the timber harvested in the study area's six counties. Of the other ownerships contributing to the study area's timber harvest, private and tribal timberlands accounted for 35 percent (134,014 CCF), state lands contributed 17 percent (68,375 CCF), industrial lands contributed nearly 4 percent (14,322 CCF), BLM accounted for 3.5 percent (13,461 CCF) and less than one percent came from other public timberlands. Timber from the Lolo and Bitterroot NFs accounted for the majority (81 percent) of the national forest timber harvested from the study area, with small volumes from surrounding national forests making up the balance. The species composition of the timber harvested in the study area was heavily weighted to Douglas-fir (41 percent), followed by lodgepole pine (18 percent), ponderosa pine (12 percent), western larch (12 percent), Engelmann spruce (7 percent), grand fir (6 percent) and smaller volumes of subalpine fir, white fir, and western redcedar (Hayes et al. 2021).

Table 2 – Timber harvest by county and ownership in the Lolo-Bitterroot NF Study Area, 2018.

County	National Forest	Private & Tribal	State	Industry	Other Public	Grand Total
	----- Hundred cubic feet (CCF) -----					
Granite	14,967	11,061	3	-	9,561	35,592
Mineral	11,296	7,367	882	311	-	19,856
Missoula	22,516	28,271	28,819	815	3,348	83,769
Powell	38,064	14,129	8,875	-	3,636	64,704
Ravalli	26,776	5,844	4,007	-	-	36,627
Sanders	33,588	67,342	25,789	13,196	-	139,915
Grand Total	147,207	134,014	68,375	14,322	16,545	380,463

Source: Hayes et al. 2021

Lolo and Bitterroot NF Timber-Processing Area

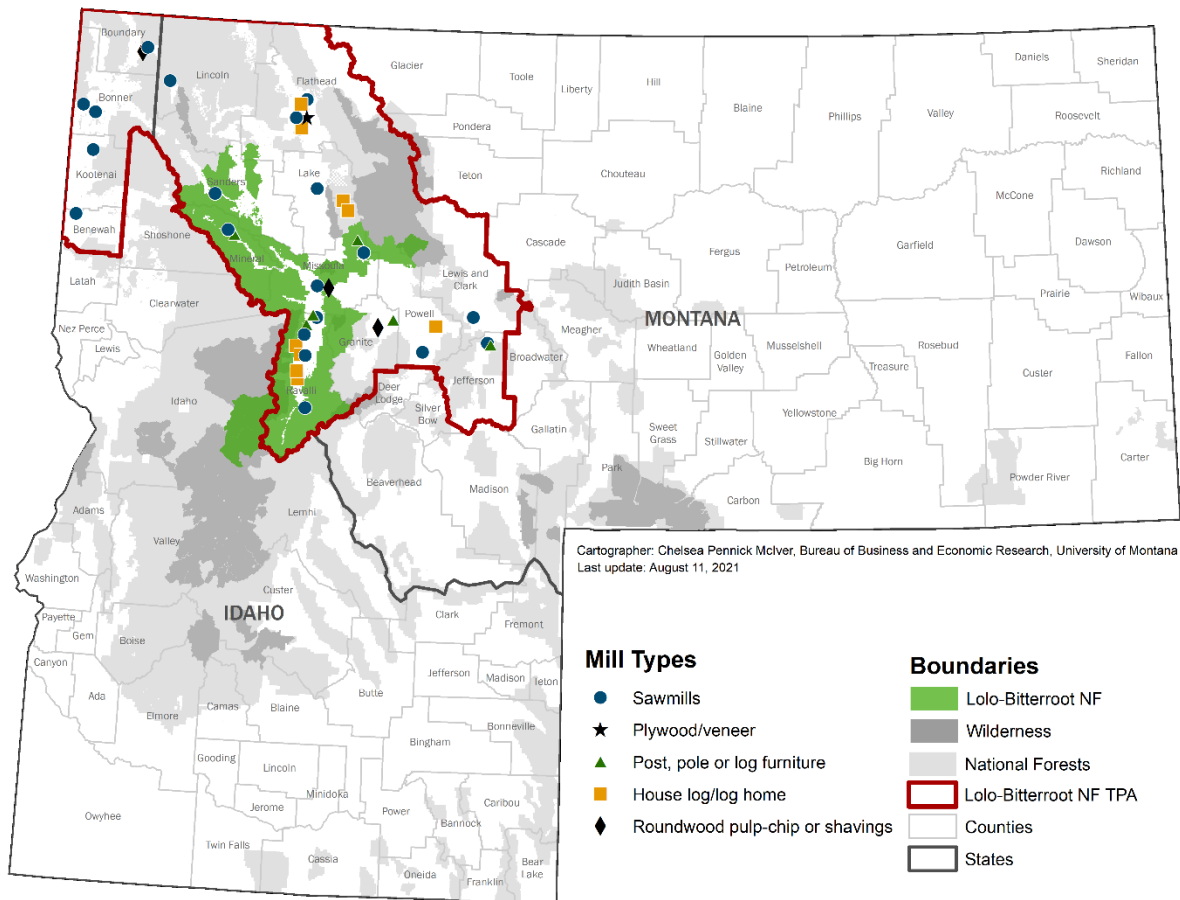


Figure 2 – Location and type of timber-processing facilities receiving timber from the Lolo and Bitterroot NF study area, 2018.

Based on analysis of timber flow trends, 15 counties were identified as encompassing the Lolo-Bitterroot NF TPA. In addition to the six Montana counties in the study area, five other counties in Montana and four counties in Idaho contained mills that received timber from the study area in 2018. A total of 80 primary wood products facilities operate within the TPA, of which 42 reported receiving timber from the study area in 2018 and 41 were active as of 2022 (table 4, figure 2). Twenty-four of the 41 active facilities in the TPA were located within the five-county study area and six of the remaining facilities were located out-of-state.

Table 4 – Active timber-processing facilities in the Lolo-Bitterroot NF timber-processing area, 2022^a.

Type	2018
Sawmill	20
Plywood/veneer	1
Post or pole	5
Log home/house log	10
Roundwood chipping/pulp	2
Log furniture	1
Biomass energy	1
Wood shavings	1
Total	41

Hayes et al. 2021; Simmons et al. (in prep)

^aFacilities may be counted more than once if they produce more than one product.

Timber Flow Trends – Into Study Area

Facilities in the study area received 395,314 CCF (149,262 MBF) in 2018, making the area a net importer of timber by a small margin. Of the timber received and processed by mills, 27 percent came from the Lolo and Bitterroot National Forests and 47 percent came from national forest timberlands in Montana and neighboring states. Private (industrial and non-industrial) and tribal timberlands provided 30 percent and state timberlands supplied 16 percent. The Bureau of Land Management and other public ownerships provided 6 percent of timber received by mills in the study area, and Canadian sources provided less than 1 percent.

Timber Flow Trends – Out of Study Area

Of the 380,463 CCF (146,258 MBF) of timber harvested in the Lolo-Bitterroot NF study area in 2018, approximately 31 percent (120,085 CCF) was processed in the county of harvest, 41 percent (157,420 CCF) was processed elsewhere within the study area, and 27 percent (104,955 CCF) was processed outside the study area but within the Lolo-Bitterroot NF TPA (table 3).

Table 3 - Timber flow from the Lolo-Bitterroot NF Study Area, 2018.

County of harvest	Processed within the county of harvest	Processed elsewhere within study area	Processed outside study area
	<i>----- percentage of harvest by county -----</i>		
Granite	4	95	1
Mineral	62	35	3
Missoula	50	31	19
Powell	21	63	16
Ravalli	4	96	—
Sanders	34	11	55
Grand Total	31	41	27

Source: Hayes et al. 2021; Simmons et al. (in prep)

Note: — less than one percent.

Timber-Processing Capacity, Capability, and Utilization

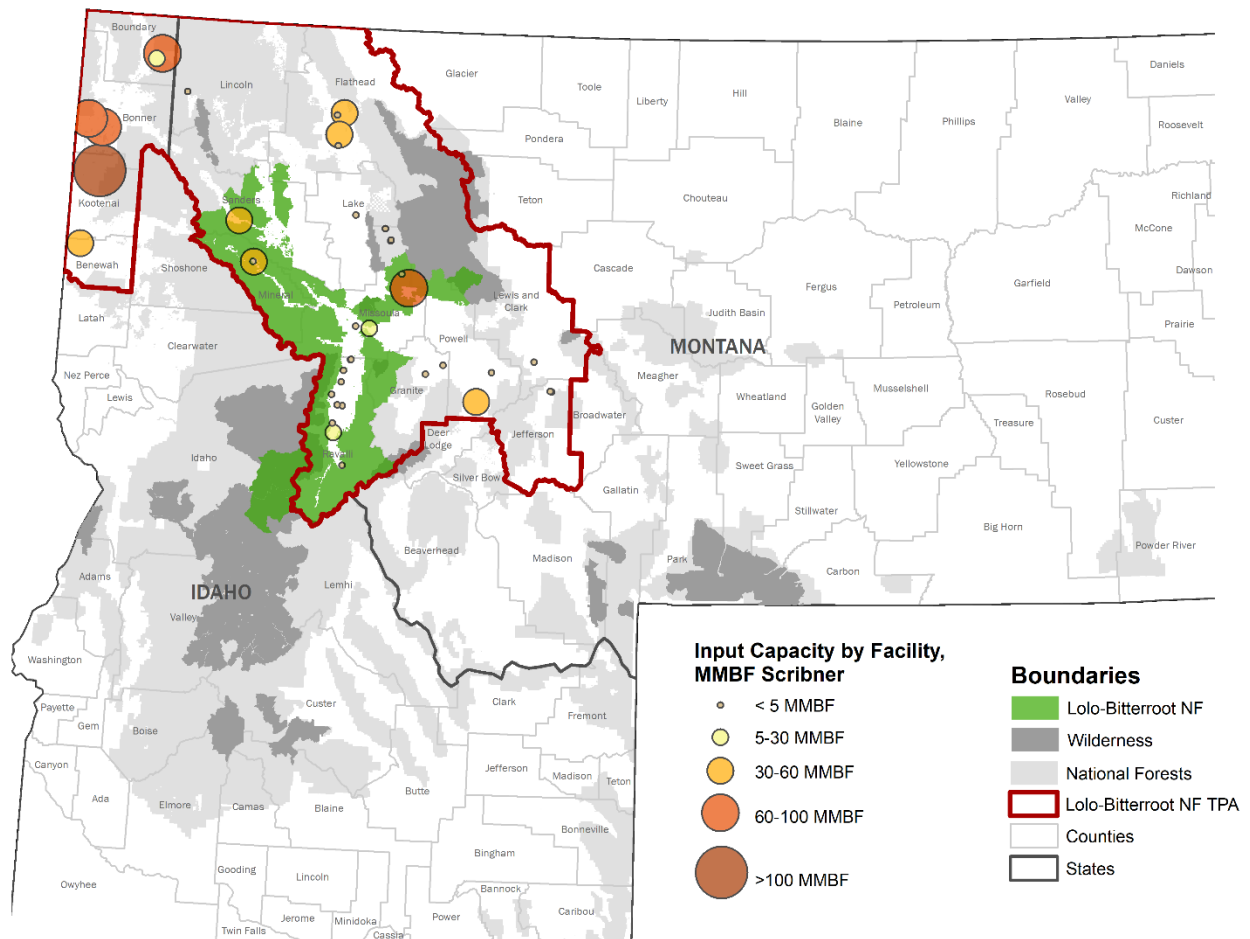


Figure 3 – Capacity of mills receiving timber from the Lolo and Bitterroot NF study area, 2018.

Capacity to process timber in the Lolo-Bitterroot NF TPA during 2022 was estimated as 2,046,595 CCF (855,180 MBF) (table 5, figure 3). Capacity within the study area was 607,390 CCF (222,023 MBF), 37 percent of the total capacity in the TPA. Nearly 56 percent (1,135,979 CCF or 502,636 MBF) of timber-processing capacity in the Lolo and Bitterroot NF TPA is not capable of efficiently utilizing trees less than 10 inches dbh. Capability to efficiently utilize trees 7 to 9.9 inches dbh accounts for 33 percent of total timber-processing capacity; while over 12 percent of total capacity in the TPA can efficiently utilize trees less than 7 inches dbh. Nearly half (49 percent) of total capacity to process timber in the TPA resides with mills in Montana, however slightly more than half (57 percent) of capacity in the smallest size class and slightly

less than half (45 percent) of capability in the 7 to 9.9-inch size class is located in Montana. Capability in the largest size class is roughly split between the two states.

Table 5 – Annual capacity and capability of mills to process trees by size class for the Lolo-Bitterroot NF TPA, 2022.

<i>Hundred cubic feet (CCF)</i>		<i>Thousand board feet, Scribner (MBF)</i>	
Tree dbh	Capability	Tree dbh	Capability
< 7 in.	242,781	< 7 in.	60,277
7 - 9.9 in.	667,835	7 - 9.9 in.	292,267
≥ 10 in.	1,135,979	≥ 10 in.	502,636
Total capacity	2,046,595	Total capacity	855,180

Source: Hayes et al. 2021; Simmons et al. (in prep)

Assuming timber processed by mills in 2022 remained similar to 2018, the most recent year for which timber consumption data are available, mills in the TPA were estimated to process 1,499,828 CCF (631,172 MBF) of timber, indicating that approximately 71 percent of total capacity (on a cubic foot basis) within the TPA was utilized (table 6). It is estimated that the idling of the mill in Mineral County led to a reduction in the proportion of timber from the Lolo and Bitterroot study area that was processed in Montana from over half to roughly 36 percent. Overall, national forests supplied nearly 27 percent of the timber processed in the TPA. The Lolo and Bitterroot NFs supplied approximately 10 percent of the total national forest timber consumed within the TPA; national forests in Idaho, Montana, and Wyoming supplied the remaining 90 percent of the NF total.

Trees with a dbh greater than 10 inches comprised 60 percent of the annual volume processed in the TPA, while 36 percent came from trees 7 to 9.9 inches dbh, and 3 percent was made up of trees less than 7 inches dbh. (table 6). On a volume basis, the largest share of unused capacity resides in the greater than 10 inches dbh size class (264,190 CCF). However, capability in the TPA to process trees less than 7 inch dbh class had a utilization rate of only 20 percent, indicating unutilized capability of 195,283 CCF (44,427 MBF) in this smallest tree size class.

Table 6 – Annual volume of timber processed by tree size class for the Lolo-Bitterroot NF TPA, 2022.

<i>Hundred cubic feet (CCF)</i>		<i>Thousand board feet, Scribner (MBF)</i>	
Tree dbh	Volume used	Tree dbh	Volume used
< 7 in.	47,498	< 7 in.	15,850
7 - 9.9 in.	527,604	7 - 9.9 in.	227,416
≥ 10 in.	874,726	≥ 10 in.	387,906
Total processed	1,449,828	Total processed	631,172

Source: Hayes et al. 2021; Simmons et al. (in prep)

Discussion

The capacity and capability information used in this report represent mills that received timber from the study area’s six counties and characterizes market dynamics in 2018-2019 with capacity updates through 2022. The steep rise and decline in finished wood product prices that took place in 2020 and 2021 may have changed the ability of some mills to draw timber from more distant locations, potentially impacting the size and overall capacity of the Lolo and Bitterroot TPA. As discussed earlier, mill closures since 2018 have also likely impacted the movement of timber and potentially the size of the timber processing area.

The authors estimate that in 2018, 566,918 CCF of additional timber-processing capacity existed among mills in the TPA counties that did not receive timber from the study area in 2018-2019. Most of these mills were post and small pole, log furniture and log home manufacturers that either do not consume large quantities of timber or rely upon timber with specific size and species characteristics that they can draw timber from farther away, including Canada. Nearly all of the TPA mills that did not receive timber from the study area were located outside the study area. A list of all mills residing in the TPA regardless of whether they received and processed timber from the Lolo and Bitterroot NF study area is included in Appendix B.

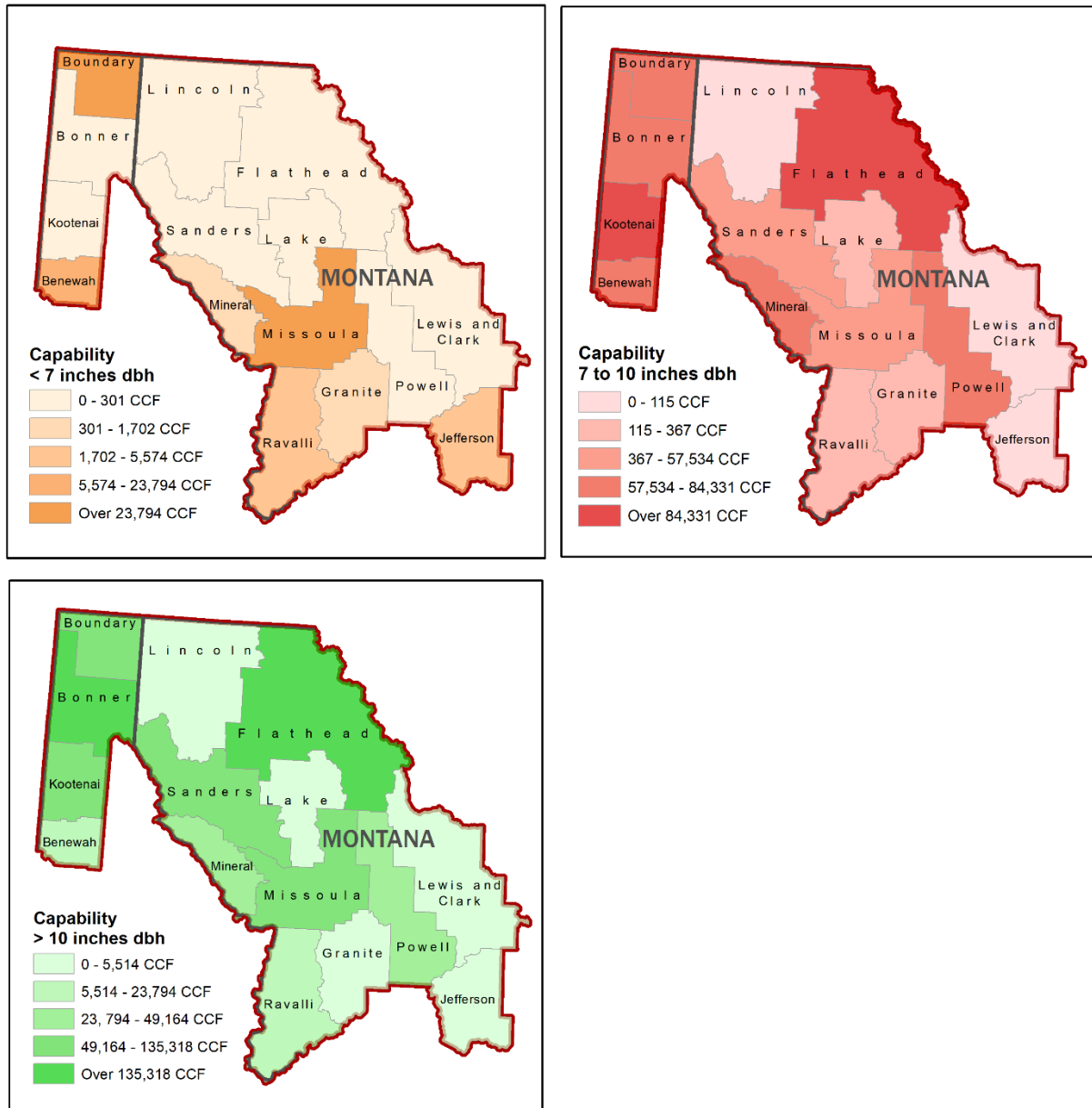


Figure 4 – Capability to process logs by county and size class among mills receiving timber from the Lolo and Bitterroot NF study area.

Overall, approximately 1.1 MMCF of capacity within the TPA could not operate efficiently on trees less than 10 inches dbh. These mills tend to be characterized as sawmills with two “sides” in which one side processes smaller diameter timber and the other processes only larger material (see Keegan et al. 2005). The remaining capacity not able to efficiently

process trees less than 10 inches dbh resides primarily with log home and utility pole manufacturers. About half of the capacity not capable of processing trees less than 10 inches dbh resides in Idaho, with the remaining capacity residing in Montana. A moderate amount of the capacity capable of utilizing smaller diameter trees was being used to process larger trees or going unused. Slightly less than 20 percent of capacity in the less than 7 inch dbh category was utilized to process trees less than 7 inch dbh, while nearly 75 percent of capacity in the 7 to 9.9 inch dbh category was being used to process trees 7 to 9.9 inch dbh. More than 129,831 CCF of capacity capable of using trees 7 to 9.9 inch dbh was used annually to process trees equal to or greater than 10 inch dbh.

Mills receiving timber from the study area exhibited unused capacity in all size classes during 2018 even amidst increased harvesting from fire salvage projects (figure 5). The majority of unused capacity to process trees less than 7 inches dbh resided in counties with roundwood pulp-chip conversion facilities (Boundary County, ID and Missoula County, MT). Unused capacity in the 7 to 10 inch dbh category was distributed across multiple counties containing medium-sized sawmills. However, there was also evidence that some mills took in more timber in a size class than was economical for them to process. For example, mills in Flathead County together took in 5,621 CCF more timber in the 7 to 10 inch dbh class than they were estimated to efficiently process (indicated by negative values in figure 5).

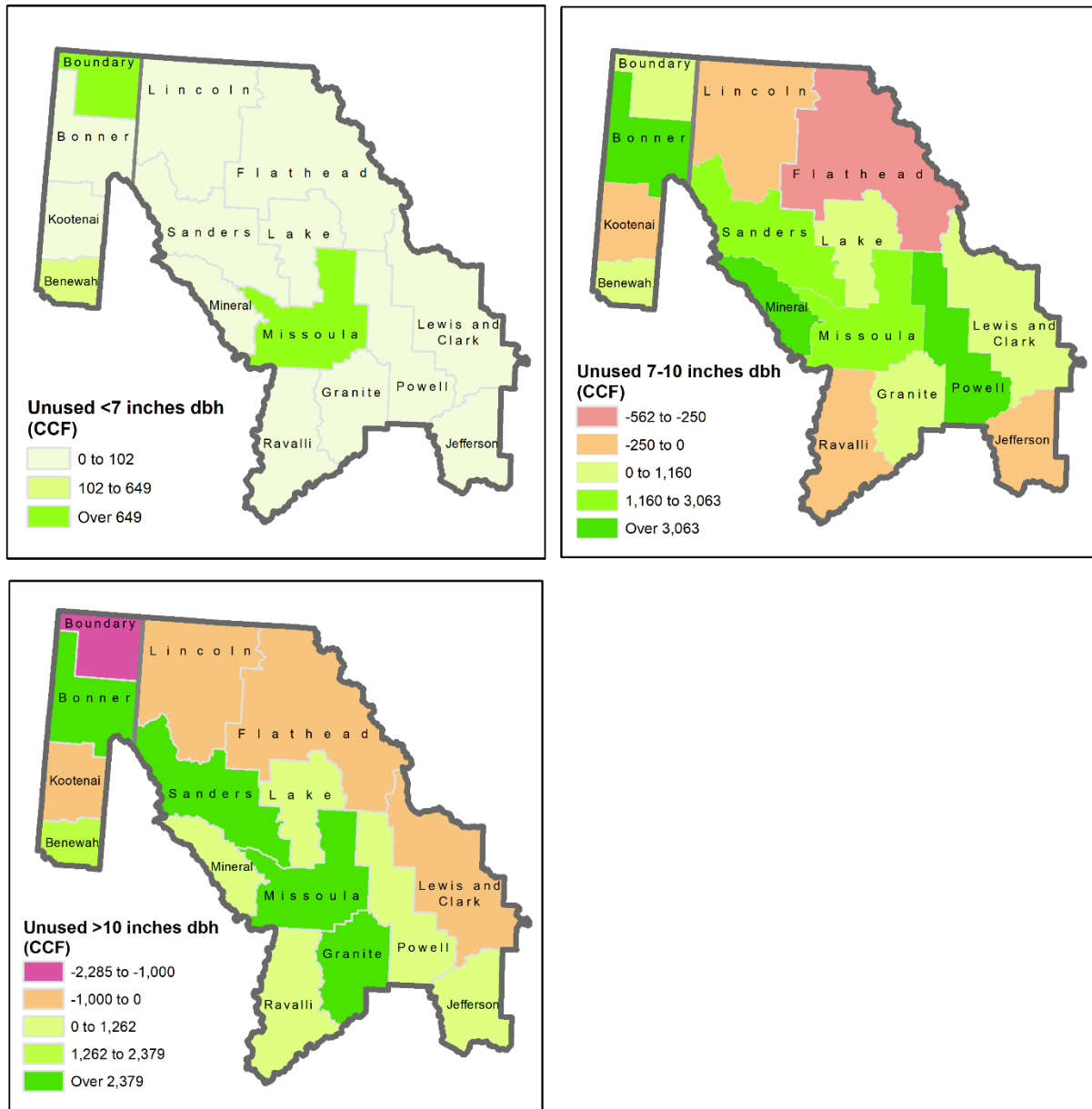


Figure 5—Unused capacity among mills receiving timber from the study area by size class and county.

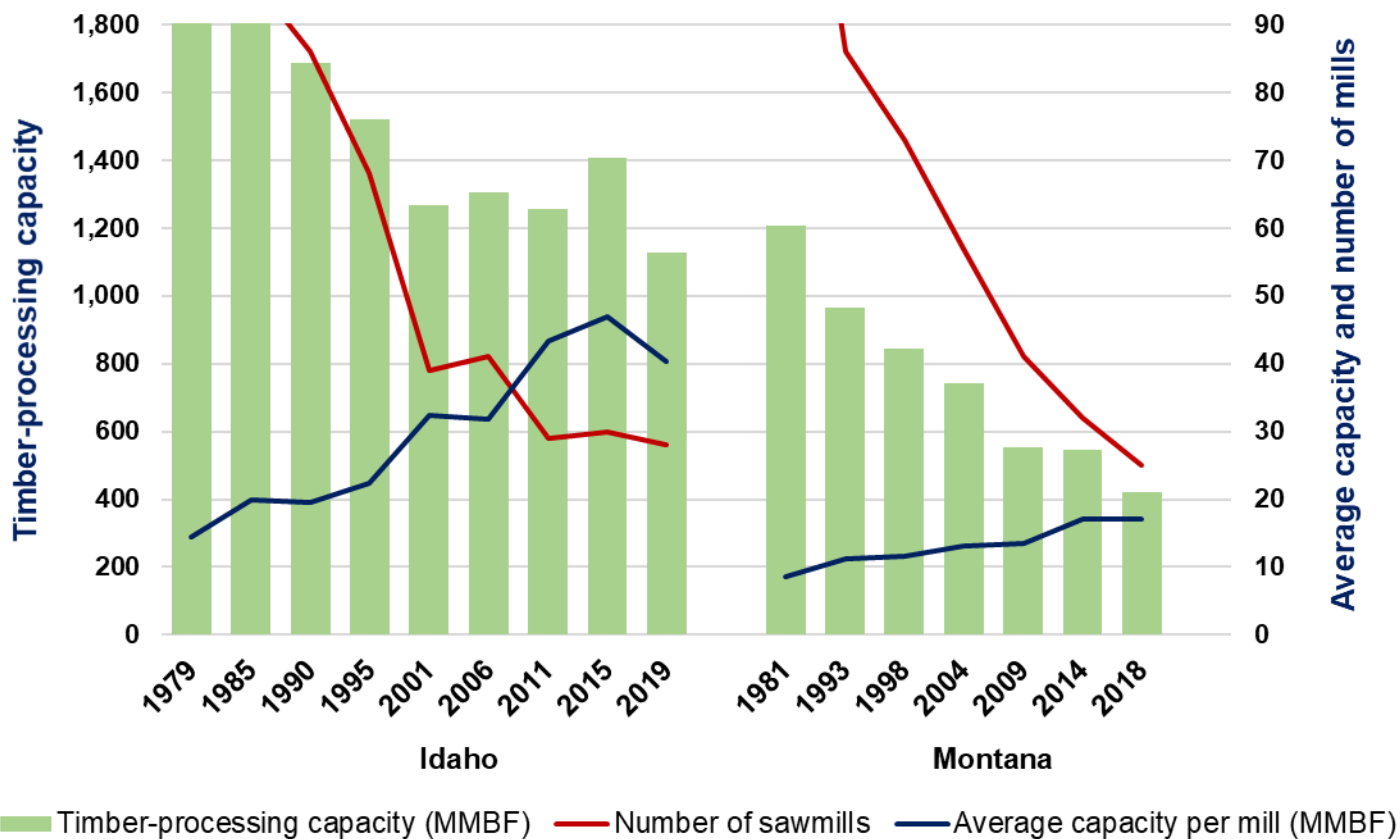
Capacity to process timber remained nearly constant within the TPA since the last similar study was conducted (McIver et al. 2012; McIver et al. 2013). A total of 65 facilities received timber from the Lolo and Bitterroot study area in 2011 and 49 were located in the 2018 Lolo and Bitterroot TPA indicating that while the total number of facilities has declined,

upgrades at remaining facilities have prevented significant losses in timber-processing capacity. This follows trends documented across the western U.S. in which existing capacity is concentrated among fewer mills leading to an overall decline in the total number of active mills in the region (Keegan and others 2006; Simmons and Morgan 2017).

The distribution of capacity by size class changed dramatically, however. Since 2011, capacity to process trees less than 7 inches dbh increased 65 percent and capacity to process trees 7 to 10 inches dbh increased 11 percent, while the share of capacity not capable of processing trees less than 10 inches dbh decreased by 11 percent. The increase in capacity to process the smallest trees can be explained by the inclusion of roundwood chipping operations in the current analysis, which were excluded from the 2012 analysis, and by the investments of sawmill owners to increase small-log processing capabilities.

The size of the TPA also increased between 2011 and 2018. One reason for this expansion was the decision by the authors to be more generous when considering counties for inclusion in the TPA; mills in north Idaho were considered to be a viable consumer of timber from the study area even if the volume consumed in 2018 was relatively small. This decision was made, in part, in response to the near-term loss of milling infrastructure in the western part of the Lolo and Bitterroot NF study area which will likely exacerbate the westward movement of timber from the area (Missoulain, August 31, 2021). As figure 6 demonstrates, Idaho has maintained a greater share of its total timber-processing capacity over time. Four of the Lolo and Bitterroot NF TPA's largest sawmills are located in north Idaho. These facilities account for a considerable amount of the Lolo and Bitterroot NF TPA's capability to process trees greater than 7 inches dbh (figure 4).

Declines in sawmill infrastructure and effects on timber-processing capacity in Idaho and Montana, select years



Source: Forest Industry Research Program, BBER, University of Montana.

Figure 6 – Timber-processing capacity, number of sawmills and average capacity per mills by region. Sources: Forest Industries Data Collection System, various years.

Capability to process trees less than 7 inches dbh tends to be concentrated among facilities that produce pulp chips, studs, posts and small 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 residues 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.

The lumber market trend during the study period was favorable. Lumber prices were stable, and the national economy was doing well. Even during these favorable markets unused capacity existed in the TPA. This analysis shows that opportunities exist across all size classes to produce fiber at current or even expand levels in the Lolo and Bitterroot TPA. In percentage terms, the less than 7 inches dbh class had the most unused capacity, but this category is very market sensitive and is not very large in absolute terms. Overall, the results indicate that given the current mix of products produced by the National Forests in the TPA the processing capacity exists to accept the volume.

Finally, many of the facilities throughout the Northern Region are included in the timber processing areas of more than one National Forest. Therefore, 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. We encourage coordination at the Regional, Forest, and even the district level among timber planning staff to share information about prospective projects and potential buyers to prevent offering more timber, particularly in the smaller size classes, than can be processed.

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APPENDIX A - Data Sources, Definitions and Methods

Data Sources

Information in this report is primarily generated through a statewide periodic census of manufacturers of primary forest products. The census is conducted through a cooperative agreement between the BBER and the USDA Forest Service, Interior West Forest Inventory and Analysis (FIA) program. This analysis is based primarily on 2018 mill survey data for Montana with supporting data from the 2019 Idaho mill survey (FIDACS; Hayes et al. 2021; Simmons et al. in prep). When 2018 data for a mill were not available, prior 2014 or 2010 data were used as a baseline and adjusted to reflect 2018 harvest and market conditions. Mill survey data from Hayes et al. (2021), Simmons et al. (in prep), USFS Cut and Sold reports (USFS 2018), annual timber product output (TPO) data (2019, 2020) collected by BBER on behalf of FIA, and conversations with mill owners were used to characterize timber harvest and timber capacity and consumption by mills. These sources were supplemented by literature from peer-reviewed journals when appropriate.

Study Area

The study area for a national forest is defined as all counties that contain timberland within that national forest. Timberland is defined by FIA as producing or capable of producing at least 20 cubic feet per acre per year (USDA Forest Service). Reserved lands are excluded from calculation of the study area because they are statutorily exempt from timber harvesting activity. Non-forested lands are also excluded from this calculation because they also do not have the capability to produce timber. Once defined, the study area is analyzed to understand harvest and utilization trends for timber originating from all ownerships in order to understand national forest harvest trends in context and to characterize the broader market for timber in the area.

Timber-processing Area

A national forest's timber-processing area (TPA), or area of influence, establishes the geographic region and wood product manufacturers that *potentially* influence and are

influenced by timber harvested from that forest by analyzing the flow of timber from all ownerships within the study area. Counties containing mills that received and processed timber from the study area during 2018 were identified from mill surveys and included in the timber-processing area, unless the volume received are very small. Mills receiving timber from the study area during 2019 or 2020 were also included if they were located in an adjacent county.

The list of mills receiving timber from the study area that are located within the TPA are identified and compiled in order to characterize the capacity and capability of manufacturers in the TPA to process timber in total, and by tree size class. Only mills receiving timber from the study area were included in this analysis in order to best represent 2018/2019 market conditions and supply chain differences between sectors. A mill's procurement distance is determined by multiple factors including finished good market demand, competition, the value-added nature of a product and the total volume of timber consumed annually. For example, log homes are a high-value product that require high quality raw material of a certain size, enabling manufacturers to procure timber from longer distances, including Canada. Log furniture manufacturers produce medium to high value products but use a very small volume of timber and therefore are less likely to draw timber from long distances. In many cases, these differences will explain why some mills are not included in a national forest's TPA even though they reside within a TPA county.

Timber-processing capacity

In this report, "capacity" refers to the total volume of timber (a.k.a., roundwood or logs) that timber processors could utilize annually. Also known as "timber-processing capacity", it is a measure of input capacity and is expressed in board feet Scribner or cubic feet. Input capacity is a useful measure when attempting to express the capacity of multiple types of mills in a common unit of measure. Since finished products (mill outputs and output capacity) are measured in a variety of units: board feet lumber tally for lumber, lineal feet for house logs, and pieces for posts, small poles, and log furniture, input capacity provides for direct comparisons between mill types. Input or timber-processing capacity is a measure of the volume of logs that a facility can process in a given year given firm market demand, sufficient raw material, and usual downtime for maintenance. Estimates in this report include the capacity of facilities that

use timber in round form; this includes sawmills and facilities processing timber into plywood or veneer, house logs, log homes, posts, poles, log furniture, firewood, clean/pulp chips, and biomass energy.

Timber-processing capability

In contrast to timber-processing capacity, “capability” refers to the volume of trees of a certain size class (measured as tree diameter at breast height – dbh) that timber processors can efficiently process annually. Most facilities are designed to operate using trees of a given size class. For example, log home manufacturers typically use trees ≥ 10 inches dbh, and post manufacturers primarily use trees < 8 inches dbh. Capability at these facilities is readily classified in a single size class. This is true for some sawmills, but sawmills can vary greatly in equipment, configuration, product output, and ability to process timber of various sizes (Wagner et al. 1998, 2000; Keegan et al. 2005, 2006; Stewart et al. 2004).

Sawmills often process trees that are larger than the smallest tree sizes they are capable of processing. In other words, most mills capable of processing trees 7 to 9.9-inches dbh are also capable of, and prefer, processing trees greater than 10-inches dbh, thus these mills tend to process substantially more of the larger trees. However, some mills that process larger trees are not capable of processing smaller-diameter trees. For this reason, this report presents capability to process trees greater than 10-inches dbh as the proportion of total capacity *not* capable of efficiently using trees less than 10-inches dbh. Whereas, capability to process trees less than 7-inches dbh and 7 to 9.9-inches dbh are presented as maximum volumes of trees of these size classes that can be processed efficiently.

Assigning capacity and capability at the mill level

For each mill in the TPA that received timber from the study area, an estimate of the mill’s capability to process timber of a given size was made based on literature (Wagner et al. 1998, 2000; Keegan et al. 2005, 2006; Stewart et al. 2004), conversations with mill owners and the most recent BBER mill census data, which aim to take into consideration the financial feasibility and physical characteristics of the mill. For this report, three tree size classes were used: less than 7-inches dbh, 7 to 9.9-inches dbh, and 10 inches dbh or greater. BBER

researchers first assigned capability to efficiently process timber in the less than 7-inch and 7 to 9.9-inch dbh classes. Capability to process trees 10 inches dbh or greater was then calculated as the remaining proportion of total capacity *not* capable of efficiently using trees less than 10 inches dbh. Total timber-processing capacity and capability by dbh class are presented in both hundred cubic feet (CCF) and thousand board feet Scribner (MBF) to facilitate discussion among national forest managers, timber purchasers, and wood products facility operators.

APPENDIX B – MILL LIST

Table B1. Wood products facilities located within the Lolo and Bitterroot National Forest TPA counties (includes facilities that did not receive timber from the study area).

Mill Name	Mill Type	County	State
Alta Forest Products	Sawmill	Bonner	ID
American Cedar	Cedar products	Benewah	ID
Bad Goat	Sawmill	Missoula	MT
Bell Lumber and Pole	Utility pole	Bonner	ID
Big Sky Forest Products	Post/pole	Mineral	MT
Big Sky Shavings, LLC	Wood shavings	Granite	MT
Caribou Creek Log & Timber	House log/log home	Boundary	ID
Chapel Cedar	Sawmill	Lincoln	MT
Conkle's Custom Cuts	Sawmill	Flathead	MT
Darby Schools	Biomass energy	Ravalli	MT
DLM Shake	Cedar products	Benewah	ID
Dupuis Lumber	Sawmill	Lake	MT
F H Stoltze Land & Lumber Co	Sawmill	Flathead	MT
Finlay Lumber	Sawmill	Ravalli	MT
Fodge Pulp	Roundwood chipping	Boundary	ID
Frontier Log Furniture	Log furniture	Flathead	MT
Frontier Posts, LLC	Post/pole	Ravalli	MT
Glacier Log Mill / Lazarus Log Homes (House log)	House log/log home	Flathead	MT
Glacier Log Mill / Lazarus Log Homes (Post/pole)	Post/pole	Flathead	MT
Huckaba Custom Designs	Log furniture	Jefferson	MT
Hunts Timber	Sawmill	Lake	MT
Idaho Forest Group (Chilco)	Sawmill	Kootenai	ID
Idaho Forest Group (Laclede)	Sawmill	Bonner	ID
Idaho Forest Group (Moyie Springs)	Sawmill	Boundary	ID
Idaho Forest Group, LLC. - ST Regis Mill	Sawmill	Mineral	MT
Jack Buell Trucking - Swan Lake Fiber	Roundwood chipping	Benewah	ID
John's Rough Cut	Log furniture	Bonner	ID
Kalispell Montana Log Homes, Inc.	House log/log home	Flathead	MT
L & L Custom Sawing	Sawmill	Lewis and Clark	MT
Log Homes Handcrafted	House log/log home	Missoula	MT
Marks Lumber	Sawmill	Jefferson	MT
Marks-Miller Post & Pole Inc	Post/pole	Jefferson	MT
Master Log Homes	House log/log home	Ravalli	MT
Meadowlark Log Homes	House log/log home	Lincoln	MT
Medicine River Woodworks	Log furniture	Ravalli	MT
Misty Mountain Furniture	Log furniture	Bonner	ID

Montana Custom Log Homes Inc	House log/log home	Ravalli	MT
Montana Timberline Firewood Co.	Firewood	Flathead	MT
Montana Woodworks	Log furniture	Lincoln	MT
Montana-Idaho Log & Timber	House log/log home	Ravalli	MT
Mountain Gem Log Homes	House log/log home	Bonner	ID
Mountain View Log Homes--Condon	House log/log home	Missoula	MT
Neumayer Mills Unlimited	Sawmill	Boundary	ID
Nordique Systems Log Homes	House log/log home	Missoula	MT
North Country Log Works	House log/log home	Flathead	MT
North Idaho Log Furniture	Log furniture	Kootenai	ID
North Idaho Post and Pole	Post/pole	Kootenai	ID
Old Style Log Works	House log/log home	Flathead	MT
Panhandle Forest Products	Post/pole	Bonner	ID
Pfendler Post & Pole	Post/pole	Granite	MT
Potlatch Deltic - St Maries Sawmill	Sawmill	Benewah	ID
Potlatch Deltic - St Maries Plywood	Plywood/Veneer	Benewah	ID
Pyramid Mountain Lumber, Inc.	Sawmill	Missoula	MT
R & S Milling	Sawmill	Ravalli	MT
RBM Logging & Lumber	Sawmill	Flathead	MT
River Country Wood Products	Post/pole	Lincoln	MT
Rocky Mountain Log Homes	House log/log home	Ravalli	MT
Rocky Mountain Log Homes-Victor	House log/log home	Ravalli	MT
Roland Timber Company	Sawmill	Benewah	ID
Roundwood West Corporation	Post/pole	Missoula	MT
Simonson's Log Furniture	Log furniture	Flathead	MT
Small Diameter Logs Company	House log/log home	Ravalli	MT
Specialty Beams	Sawmill	Bonner	ID
Stella Jones-McFarland Cascade Sandpoint	Utility pole	Bonner	ID
Stillwater Post & Pole	Post/pole	Lincoln	MT
Stimson Lumber Company (Plummer)	Sawmill	Benewah	ID
Stimson Lumber Company (Priest River)	Sawmill	Bonner	ID
Stimson Lumber Company (St Maries)	Sawmill	Benewah	ID
Sula Log Homes	House log/log home	Ravalli	MT
Sun Mountain Lumber	Sawmill	Powell	MT
The Rustics Of Montana	House log/log home	Missoula	MT
Thompson River Lumber Co	Sawmill	Sanders	MT
Trout Creek Log Homes	House log/log home	Powell	MT
Valley Board & Beam	Sawmill	Ravalli	MT
Weyerhaeuser - Evergreen Plywood	Plywood/Veneer	Flathead	MT
Weyerhaeuser - Evergreen Sawmill	Sawmill	Flathead	MT
Whiteman Lumber Company	Sawmill	Kootenai	ID
Wild Montana Wood	Sawmill	Flathead	MT
Willis Enterprises, Inc.-Bonner Chip Plant	Roundwood chipping	Missoula	MT

Woody's Lumber & Sawmill

Sawmill

Lewis and Clark MT
