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/

PINE VALLEY ACTIVE FOREST MANAGEMENT STRATEGY AREA

Introduction:

This document provides information about the Pine Valley 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 Pine Valley 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.

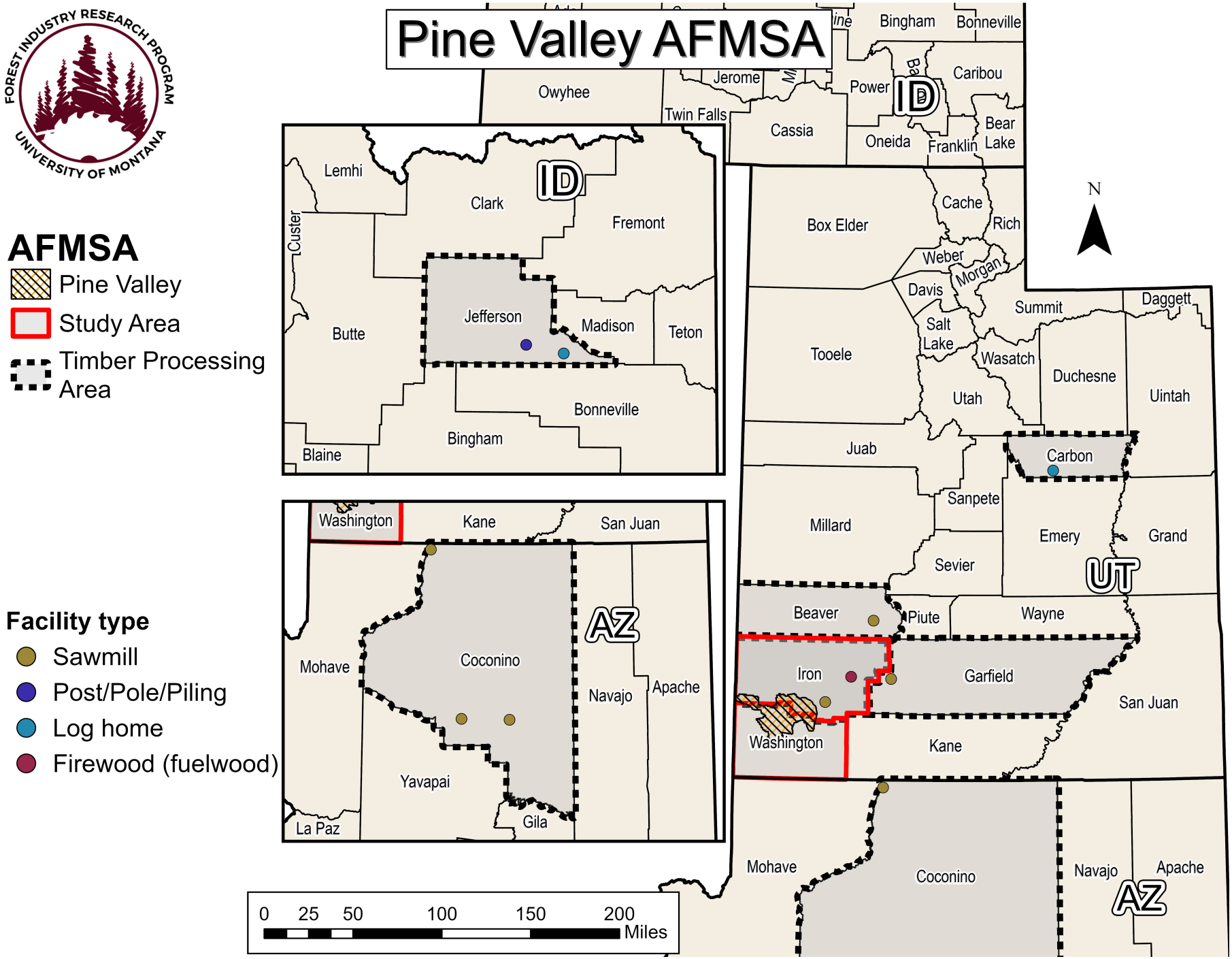

Figure 1. Pine Valley AFMSA landscape, Study Area, Timber Processing Area, and facility locations

PINE VALLEY STUDY AREA COUNTIES

Table 1. Pine Valley Study Area counties

County	State
Iron	UT
Washington	UT

PINE VALLEY STUDY AREA HARVEST

Table 2. Timber harvest from Pine Valley Study Area counties (all ownerships), by percentage distribution by species (2020-2023)

Species group	2020	2021	2022	2023
Engelmann spruce	40%	64%	80%	74%
Ponderosa pine	38%	23%	20%	16%
Lodgepole pine	15%	14%	0%	10%
Douglas-fir	7%	0%	0%	0%
All species	**100%**	**100%**	**100%**	**100%**

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

	----------Percentage from national forests----------			
Timber product type	**2020**	**2021**	**2022**	**2023**
Sawlog	100%	100%	100%	100%
Fiber log	100%	n/a	100%	n/a
House log	n/a	100%	100%	100%
Study area total	100%	100%	100%	100%

Note: "n/a" indicates that no timber of this product type was harvested within the Study Area.

PINE VALLEY TIMBER-PROCESSING AREA COUNTIES

Table 4. Pine Valley Timber-Processing Area (TPA) counties

County	State
Coconino	AZ
Jefferson	ID
Beaver	UT
Carbon	UT
Garfield	UT
Iron	UT

PINE VALLEY TIMBER-PROCESSING AREA FACILITIES LIST

Table 5. Timber-processing facilities within the Pine Valley TPA (2025)

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
AP Sawmill and Lumber Products, LLC	Active	sawmill	AZ	Coconino	<250 MCF	yes
Reidhead Forest Management	Active	sawmill	AZ	Coconino	250 TO 499 MCF	yes
Restoration Forest Products	Active	sawmill	AZ	Coconino	No data	no
Cooley Brothers, Inc.	Active	post/pole/piling	ID	Jefferson	<250 MCF	yes
Yellowstone Log Homes	Active	log home	ID	Jefferson	250 TO 499 MCF	yes
Fish Lake Lumber Co.	Active	sawmill	UT	Beaver	<250 MCF	yes
King Log and Beam, LLC	Active	log home	UT	Carbon	<250 MCF	yes
K & D Forest Products Inc	Active	sawmill	UT	Garfield	<250 MCF	yes
Middleton TImber Inc.	Inactive	sawmill	UT	Iron	<250 MCF	yes
The Wood Company	Active	firewood (fuelwood)	UT	Iron	1000 TO 4999 MCF	yes

TIMBER RECEIVED BY TIMBER-PROCESSING FACILITIES IN THE PINE VALLEY TIMBER-PROCESSING AREA

Table 6. Timber received by facilities in the Pine Valley TPA, percentage distribution by species (2020-2023)

Species group	2020	2021	2022	2023
Engelmann spruce	42%	53%	65%	64%
Ponderosa pine	32%	23%	15%	14%
Lodgepole pine	20%	19%	16%	18%
Douglas-fir	5%	5%	4%	4%
Quaking aspen	1%	0%	0%	0%
White fir	0%	1%	1%	0%
All species	**100%**	**100%**	**100%**	**100%**

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

	----------Percentage from national forests----------			
Timber product type	**2020**	**2021**	**2022**	**2023**
Sawlog	98%	98%	98%	98%
Post/pole	0%	n/a	n/a	0%
House log	10%	4%	24%	45%
Fiber log	100%	n/a	100%	n/a
Pulpwood log	n/a	100%	100%	100%
Firewood	100%	100%	99%	100%
Total	**79%**	**74%**	**83%**	**86%**

Note: "n/a" indicates that no timber of this product type was received by mills within the TPA.

TIMBER-PROCESSING CAPACITY AND CAPABILITY OF TIMBER-PROCESSING FACILITIES WITHIN THE PINE VALLEY TIMBER-PROCESSING AREA

Table 8. Timber-processing capacity and capability by tree dbh class of facilities in the Pine Valley TPA, by county or county group (2020, 2021, 2023)

	---------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
Arizona & Idaho	506	1,541	12,435	2,397	4,259	27,546
Utah	678	5,738	1,903	2,279	19,794	3,687
Total	**1,184**	**7,280**	**14,337**	**4,676**	**24,053**	**31,233**

Table 9. Timber-processing capacity and capability by tree dbh class of facilities in the Pine Valley TPA, by timber product type (2020, 2021, 2023)

	---------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	78	905	3,880	152	1,738	7,486
House logs	-	165	10,198	-	329	22,959
Post or pole, firewood, & chipping logs	1,106	6,210	260	4,524	21,985	788
Total	**1,184**	**7,280**	**14,337**	**4,676**	**24,053**	**31,233**

Table 10. Total timber-processing capacity, timber consumption, and capacity utilization of facilities in the Pine Valley TPA, by dbh class (2020, 2021, 2023)

	----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.	1,184	4,676	87	622	13%
7 - 9.9 in.	7,280	24,053	7,096	23,922	99%
≥10 in.	14,337	31,233	5,667	12,857	41%
Total	**22,801**	**59,962**	**12,850**	**37,401**	**62%**

Table 11. Unused timber-processing capacity of facilities in the Pine Valley TPA, by county or county group (2020, 2021, 2023)

Timber Processing Area	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Arizona & Idaho	9,062	20,830
Utah	889	1,731
Total	**9,951**	**22,561**

Table 12. Unused timber-processing capacity of facilities in the Pine Valley TPA, by timber product type (2020, 2021, 2023)

Timber product type	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Saw logs	1,960	3,782
House logs	7,863	17,775
Post or pole, firewood, & chipping logs	128	1,003
Total	**9,951**	**22,561**

RESIDUALS GENERATED BY TIMBER-PROCESSING FACILITIES IN THE PINE VALLEY TIMBER-PROCESSING AREA

Table 13. Mill residuals generated by timber-processing facilities within the Pine Valley TPA (2020, 2021, 2023)

	BDUs[a]	Percent of total volume
Utilized residuals volume	22,321	98.88%
Unutilized residuals volume	253	1.12%
Total volume generated	**22,574**	**100.00%**

[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 Pine Valley TPA, by type of residual (2020, 2021, 2023)

Type of residual	BDUs[a]	Percent of total volume
Coarse[b]	7,327	32%
Fine[c]	8,061	36%
Bark	7,186	32%
Total, all residual types	**22,574**	**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 Pine Valley TPA, by type of utilization (2020, 2021, 2023)

Type of utilization	BDUs[a]	Percent of total volume
Fuel[b]	14,696	65%
Decorative landscaping	3,412	15%
Mulch/soil addititves	2,185	10%
Sold as raw material for other products	1,828	8%
Animal bedding	200	1%
Used on-site for other products	-	0%
Fiber[c]	-	0%
Unused	253	1%
Total, all types of utilization	**22,574**	**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.