



ENCHANTED CIRCLE ACTIVE FOREST MANAGEMENT STRATEGY AREA

Introduction:

This document provides information about the Enchanted Circle 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 Enchanted Circle 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.

ENCHANTED CIRCLE STUDY AREA COUNTIES

Table 1. Enchanted Circle Study Area counties

County	State
Colfax	NM
Mora	NM
Rio Arriba	NM
Taos	NM

ENCHANTED CIRCLE STUDY AREA HARVEST

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

Species group	2020	2021	2022	2023
Ponderosa pine	67%	77%	56%	68%
Lodgepole pine	12%	7%	8%	8%
Quaking aspen	11%	3%	6%	6%
Engelmann spruce	4%	7%	11%	10%
Douglas-fir	3%	3%	11%	6%
White fir	2%	3%	2%	1%
Common juniper	0%	0%	1%	0%
Twoneedle pinyon	0%	0%	5%	0%
All species	100%	100%	100%	100%

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

Timber product type	-----Percentage from national forests-----			
	2020	2021	2022	2023
House log	86%	n/a	n/a	n/a
Firewood	39%	100%	100%	100%
Sawlog	19%	22%	33%	33%
Vigas	7%	27%	47%	33%
Fiber log	0%	0%	0%	0%
Furniture log	0%	n/a	n/a	n/a
Energy wood/log	n/a	100%	n/a	100%
Study Area total	19%	33%	33%	35%

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

ENCHANTED CIRCLE TIMBER-PROCESSING AREA COUNTIES

**Table 4. Enchanted Circle Timber-Processing Area
(TPA) counties**

County	State
Conejos	CO
Colfax	NM
Sandoval	NM
Taos	NM

ENCHANTED CIRCLE TIMBER-PROCESSING AREA FACILITIES LIST

Table 5. Timber-processing facilities within the Enchanted Circle TPA (2025)

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
Allpine Lumber Co.	Active	sawmill	CO	Conejos	500 TO 999 MCF	yes
Mammoth Mill & Construction	Active	sawmill	NM	Colfax	<250 MCF	yes
Silver Dollar Wood Products LLC	Active	bark, shavings, non-pulp chips	NM	Colfax	250 TO 499 MCF	yes
Western Wood Products	Active	sawmill	NM	Colfax	250 TO 499 MCF	yes
Western Wood Products (pellets)	Active	fuel pellet/presto logs	NM	Colfax	500 TO 999 MCF	yes
Western Wood Products (posts)	Active	post/pole/piling	NM	Colfax	1000 TO 4999 MCF	yes
Walatowa Timber Industries	Active	sawmill	NM	Sandoval	250 TO 499 MCF	yes
Wholesale Timber and Vigas - Sawmill	Active	sawmill	NM	Sandoval	<250 MCF	yes
Wholesale Timber and Vigas - Vigas/latillas	Active	viga/latillas	NM	Sandoval	<250 MCF	yes
Kuykendall & Sons Sawmill	Active	sawmill	NM	Taos	No Roundwood	no
Olguin Sawmill - Vigas	Active	viga/latillas	NM	Taos	<250 MCF	yes
Olguin Sawmill and Firewood	Active	sawmill	NM	Taos	250 TO 499 MCF	yes
Rio Costilla Cooperative Livestock Association	Active	sawmill	NM	Taos	No Roundwood	no

**TIMBER RECEIVED BY TIMBER-PROCESSING FACILITIES IN THE ENCHANTED CIRCLE
TIMBER-PROCESSING AREA**

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

Species group	2020	2021	2022	2023
Ponderosa pine	55%	66%	56%	61%
Engelmann spruce	21%	13%	20%	17%
Lodgepole pine	11%	11%	8%	12%
Quaking aspen	6%	5%	5%	5%
Douglas-fir	4%	3%	9%	4%
White fir	3%	3%	2%	1%
All species	100%	100%	100%	100%

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

Timber product type	-----Percentage from national forests-----			
	2020	2021	2022	2023
House logs	95%	14%	45%	45%
Firewood	87%	49%	49%	42%
Sawlogs	35%	52%	53%	46%
Viga log	17%	67%	68%	62%
Post/pole	0%	0%	0%	0%
Fiber log	0%	0%	0%	0%
Energywood log	n/a	31%	n/a	19%
TPA total	36%	39%	43%	32%

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

TIMBER-PROCESSING CAPACITY AND CAPABILITY OF TIMBER-PROCESSING FACILITIES WITHIN THE ENCHANTED CIRCLE TIMBER-PROCESSING AREA

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

Timber Processing Area	-----Thousand board feet, Scribner (MBF)-----			-----Hundred cubic feet (CCF)-----		
	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh
Colfax & Taos, NM	583	3,885	7,363	3,788	13,808	14,375
Conejos, CO & Sandoval, NM	70	1,971	7,027	476	5,572	14,514
Total	653	5,856	14,390	4,264	19,380	28,890

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

Timber product type	-----Thousand board feet, Scribner (MBF)-----			-----Hundred cubic feet (CCF)-----		
	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh	<7 in. dbh	7 - 9.9 in. dbh	≥10 in. dbh
Post or firewood log	617	2,315	172	3,904	12,388	667
House or viga log	36	349	1,004	360	970	2,429
Saw log	-	3,191	13,214	-	6,022	25,793
Total	653	5,856	14,390	4,264	19,380	28,890

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

Tree dbh	----Capacity to process timber----		-----Timber consumption-----		Capacity utilization
	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)	
<7 in.	653	4,264	446	2,987	70%
7 - 9.9 in.	5,856	19,380	2,534	10,860	56%
≥10 in.	14,390	28,890	9,305	19,381	67%
Total	20,899	52,533	12,285	33,228	63%

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

Timber Processing Area	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Colfax & Taos, NM	5,501	13,080
Conejos, CO & Sandoval, NM	3,113	6,226
Total	8,615	19,305

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

Timber product type	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Saw log	7,598	14,551
Post or firewood log	544	3,535
House or viga log	472	1,218
Total	8,615	19,305

RESIDUALS GENERATED BY TIMBER-PROCESSING FACILITIES IN THE ENCHANTED CIRCLE TIMBER-PROCESSING AREA

Table 13. Mill residuals generated by timber-processing facilities within the Enchanted Circle TPA (2020, 2021)

	BDUs^a	Percent of total volume
Utilized residuals volume	27,018	99.6%
Unutilized residuals volume	102	0.4%
Total volume generated	27,120	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 Enchanted Circle TPA, by type of residual (2020, 2021)

Type of residual	BDUs^a	Percent of total volume
Coarse ^b	11,260	42%
Fine ^c	8,868	33%
Bark	6,992	26%
Total, all residual types	27,120	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 Enchanted Circle TPA, by type of utilization (2020, 2021)

Type of utilization	BDUs^a	Percent of total volume
Used on-site for other products	15,112	56%
Fuel ^b	8,156	30%
Mulch/soil additives	2,143	8%
Animal bedding	1,145	4%
Decorative landscaping	462	2%
Fiber ^c	-	0%
Sold as raw material for other products	-	0%
Unused	102	0%
Total, all types of utilization	27,120	100%

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

^b Includes pulp, composite panels, and MDF.

^c Includes firewood, biomass, hogfuel, and pellets.