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Bureau of Business and Economic Research
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COLORADO FRONT RANGE ACTIVE FOREST MANAGEMENT STRATEGY AREA

Introduction:

This document provides information about the Colorado Front Range 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 Colorado Front Range 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.

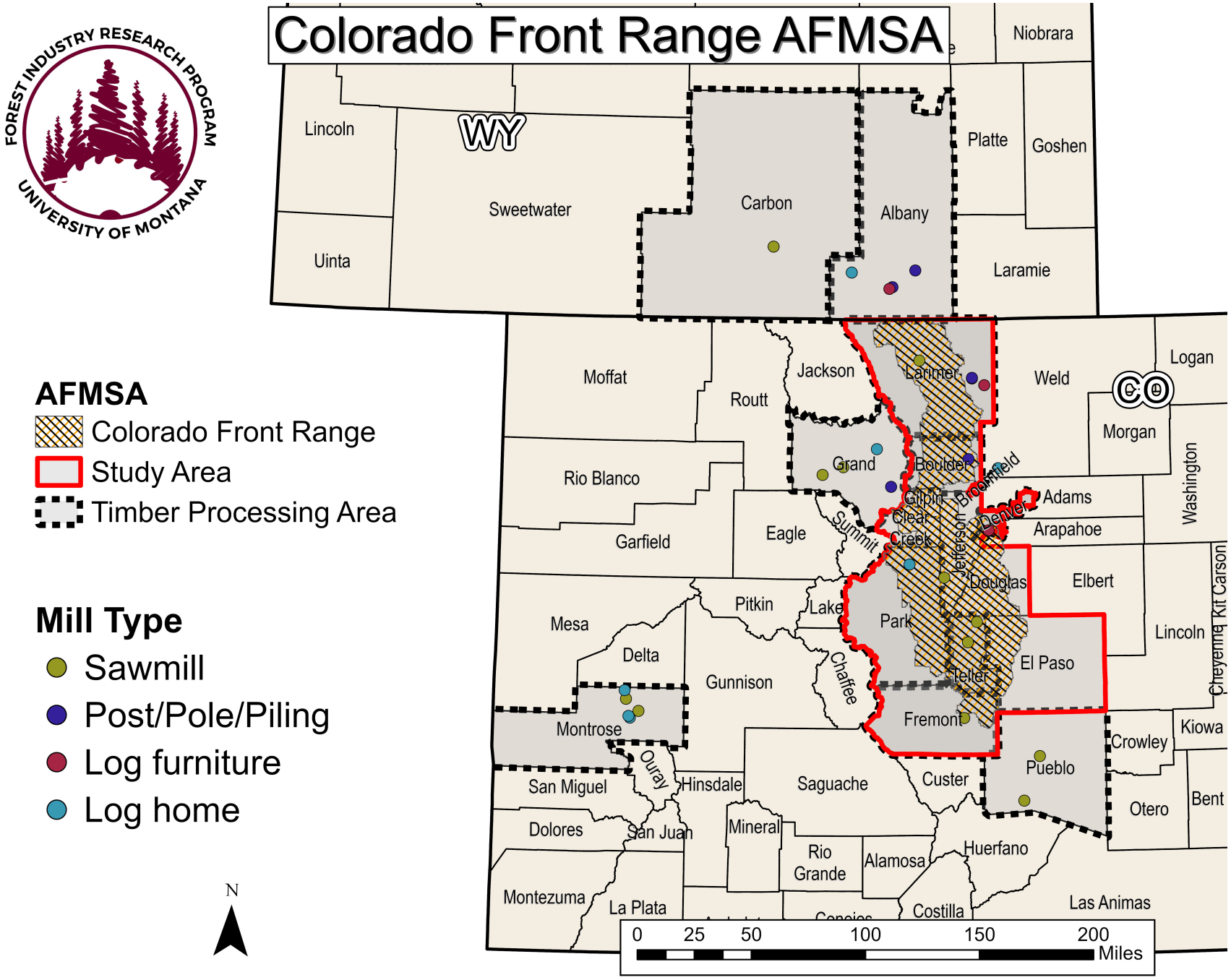

Figure 1. Colorado Front Range AFMSA landscape, Study Area, Timber Processing Area, and facility locations

COLORADO FRONT RANGE STUDY AREA COUNTIES

Table 1. Colorado Front Range Study Area counties

County	State
Boulder	CO
Clear Creek	CO
Denver	CO
Douglas	CO
El Paso	CO
Fremont	CO
Gilpin	CO
Jefferson	CO
Larimer	CO
Park	CO
Teller	CO

COLORADO FRONT RANGE STUDY AREA HARVEST

Table 2. Timber harvest from the Colorado Front Range Study Area counties (all ownerships), percentage distribution by species (2019-2023)

Species group	2019	2020	2021	2022	2023
Lodgepole pine	55%	37%	47%	34%	67%
Spruces	28%	37%	21%	34%	14%
Ponderosa pine	10%	14%	17%	11%	8%
Douglas-fir	4%	5%	9%	11%	4%
Aspen	2%	4%	5%	9%	4%
True firs	1%	3%	2%	0%	2%
All species	**100%**	**100%**	**100%**	**100%**	**100%**

Table 3. Percentage of timber harvest from national forest lands within the Colorado Front Range Study Area, by timber product type (2019-2023)

	----------Percentage from national forests----------				
Timber product type	**2019**	**2020**	**2021**	**2022**	**2023**
House/viga logs	73%	0%	100%	n/a	n/a
Fiber logs	51%	51%	51%	n/a	n/a
Posts/Poles/Furniture logs	43%	0%	0%	100%	51%
Saw logs	28%	38%	5%	1%	3%
Firewood	n/a	100%	0%	100%	100%
Study area total	**40%**	**36%**	**14%**	**23%**	**44%**

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

COLORADO FRONT RANGE TIMBER-PROCESSING AREA COUNTIES

Table 4. Colorado Front Range Timber-Processing Area counties

County	State
Boulder	CO
Denver	CO
Fremont	CO
Grand	CO
Larimer	CO
Montrose	CO
Park	CO
Pueblo	CO
Teller	CO
Albany	WY

COLORADO FRONT RANGE TIMBER-PROCESSING AREA FACILITIES LIST

Table 5. Timber-processing facilities within the Colorado Front Range TPA (2025)

Facility name	Status	Facility type	State	County	Input size class	Included in capacity analysis
StairMeister Log Works	Active	log home	Colorado	Boulder	<250 MCF	yes
United Wood Products - Post & Pole	Active	post/pole/piling	Colorado	Boulder	<250 MCF	yes
United Wood Products - Sawmill	Active	sawmill	Colorado	Boulder	<250 MCF	yes
Medicine Wolf Log Furniture	Active	log furniture	Colorado	Denver	<250 MCF	yes
McComb Lumber	Active	sawmill	Colorado	Fremont	500 TO 999 MCF	yes
Colorado Timber Resources	Active	sawmill	Colorado	Grand	1000 to 4999 MCF	yes
Grand Lake Log Homes	Active	log home	Colorado	Grand	<250 MCF	yes
Leonard Peeling	Active	post/pole/piling	Colorado	Grand	1000 to 4999 MCF	yes
The Mill	Active	sawmill	Colorado	Grand	<250 MCF	yes
Blue Ridge Log Works	Active	log furniture	Colorado	Larimer	<250 MCF	yes
Elkhorn Lumber Company	Active	sawmill	Colorado	Larimer	<250 MCF	yes
Morgan Timber Products	Active	sawmill	Colorado	Larimer	500 to 999 MCF	yes
Morgan Timber Products - Post and Pole	Active	post/pole/piling	Colorado	Larimer	500 to 999 MCF	yes
Colorado Wood Company Inc.	New	sawmill	Colorado	Montrose	No Roundwood	no
Custom Log Crafting	Active	log home	Colorado	Montrose	<250 MCF	yes
Frontier Log Homes (Colorado)	Active	log home	Colorado	Montrose	<250 MCF	yes
JAMCo Woodworks	New	log home	Colorado	Montrose	<250 MCF	yes
Montrose Forest Products, LLC.	Active	sawmill	Colorado	Montrose	5000 MCF or more	yes
Alan Eos Mountain Lumber	Active	sawmill	Colorado	Park	<250 MCF	yes
TJ's Wood Products	Active	log home	Colorado	Park	<250 MCF	yes
Crooked Creek Timber	New	sawmill	Colorado	Pueblo	No Roundwood	no
Pueblo Wood Products	Active	sawmill	Colorado	Pueblo	1000 to 4999 MCF	yes
Casey's Lumber Company	Active	sawmill	Colorado	Teller	<250 MCF	yes
Divide Timber	Active	sawmill	Colorado	Teller	<250 MCF	yes
Deerwood Log Homes	Active	log home	Wyoming	Albany	<250 MCF	yes
Lodgepole Products Inc	Active	post/pole/piling	Wyoming	Albany	250 to 499 MCF	yes
Mountain Woods Furniture	Active	log furniture	Wyoming	Albany	<250 MCF	yes
Todd Construction & Logging Inc.	Active	post/pole/piling	Wyoming	Albany	1000 to 4999 MCF	yes
Saratoga Forest Management	Active	sawmill	Wyoming	Carbon	5000 MCF or more	yes

TIMBER RECEIVED BY TIMBER-PROCESSING FACILITIES IN THE COLORADO FRONT RANGE TIMBER-PROCESSING AREA

Table 6. Timber received by facilities in the Colorado Front Range TPA, percentage distribution by species (2019-2023)

Species	2019	2020	2021	2022	2023
Lodgepole pine	48%	32%	30%	23%	39%
Engelmann spruce	43%	53%	56%	50%	37%
Ponderosa pine	5%	7%	9%	16%	14%
Douglas-fir	2%	3%	3%	3%	3%
True firs	1%	4%	1%	7%	6%
Aspen	1%	1%	1%	1%	1%
All species	**100%**	**100%**	**100%**	**100%**	**100%**

Table 7. Percentage of timber from national forests received by facilities in the Colorado Front Range TPA, by timber product type (2019-2023)

	----------Percentage from national forests----------				
Timber product type	**2019**	**2020**	**2021**	**2022**	**2023**
House	77%	52%	0%	0%	77%
Saw logs	62%	62%	75%	75%	81%
Posts/Poles/Furniture logs	61%	22%	20%	45%	76%
Firewood	37%	52%	41%	16%	100%
Study area total	**62%**	**57%**	**67%**	**70%**	**80%**

TIMBER-PROCESSING CAPACITY AND CAPABILITY OF TIMBER-PROCESSING FACILITIES WITHIN THE COLORADO FRONT RANGE TIMBER-PROCESSING AREA

Table 8. Timber-processing capacity and capability by tree dbh class of facilities in the Colorado Front Range TPA, by county or county group (2020, 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
Colorado	**5,515**	**53,010**	**105,108**	**17,717**	**115,349**	**224,174**
Boulder, Denver	350	454	260	1,423	1,542	552
Freemont, Park	-	1,057	5,374	-	2,233	11,399
Grand	4,105	7,718	15,058	12,013	17,211	31,961
Larimer	1,052	1,646	3,684	4,245	4,734	8,720
Montrose	-	39,307	73,441	-	83,524	156,028
Pueblo, Teller	9	2,827	7,291	36	6,105	15,515
Wyoming	**994**	**3,522**	**44,002**	**3,993**	**8,185**	**83,337**
Albany, Carbon	994	3,522	44,002	3,993	8,185	83,337
Total	**6,509**	**56,532**	**149,110**	**21,711**	**123,534**	**307,511**

Table 9. Timber-processing capacity and capability by tree dbh class of facilities in the Colorado Front Range TPA, by timber product group (2020, 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
Post or poles	4,099	1,934	423	16,514	7,787	1,707
Saw logs	2,377	53,684	146,576	5,047	113,316	301,128
Firewood logs	19	305	110	74	1,155	397
Furniture logs	14	9	13	75	67	125
House logs	-	600	1,987	-	1,209	4,155
Total	**6,509**	**56,532**	**149,110**	**21,711**	**123,534**	**307,511**

Table 10. Total timber-processing capacity, timber consumption, and capacity utilization of facilities in the Colorado Front Range TPA, by dbh class (2020, 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.	6,509	21,711	2,939	9,904	46%
7 - 9.9 in.	56,532	123,534	14,344	33,259	27%
≥10 in.	149,110	307,511	78,144	161,851	53%
Total	**212,151**	**452,755**	**95,427**	**205,014**	**45%**

Table 11. Unused timber-processing capacity of facilities in the Colorado Front Range TPA, by county or county group (2020, 2022)

Timber Processing Area	**Thousand board feet, Scribner (MBF)**	**Hundred cubic feet (CCF)**
Colorado	**93,155**	**201,462**
Boulder, Denver	514	1,709
Freemont, Park	1,755	3,726
Grand	15,144	34,193
Larimer	1,851	5,005
Montrose	69,736	148,005
Pueblo, Teller	4,156	8,824
Wyoming	**23,568**	**46,279**
Albany, Carbon	23,568	46,279
Total	**116,723**	**247,741**

Table 12. Unused timber-processing capacity of facilities in the Colorado Front Range TPA, by timber product type (2020, 2022)

Timber product type	Thousand board feet, Scribner (MBF)	Hundred cubic feet (CCF)
Saw logs	112,497	233,622
Post or pole	2,694	10,851
House logs	1,523	3,174
Furniture logs	10	94
Firewood logs	-	-
Total	**116,723**	**247,741**

RESIDUALS GENERATED BY TIMBER-PROCESSING FACILITIES IN THE COLORADO FRONT RANGE TIMBER-PROCESSING AREA

Table 13. Mill residuals generated by timber-processing facilities within the Colorado Front Range TPA (2020, 2022)

	BDUs[a]	Percent of total volume
Utilized residuals volume	137,903	99.4%
Unutilized residuals volume	802	0.6%
Total volume generated	**138,705**	**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 Colorado Front Range TPA, by type of residual (2020, 2022)

Type of residual	BDUs[a]	Percent of total volume
Coarse[b]	71,542	52%
Fine[c]	44,760	32%
Bark	22,403	16%
Total, all residual types	**138,705**	**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 Colorado Front Range TPA, by type of utilization (2020, 2022)

Type of utilization	BDUs[a]	Percent of total volume
Fuel[b]	60,563	78%
Sold as raw material for other products	39,096	50%
Animal bedding	18,844	24%
Decorative landscaping	10,834	14%
Mulch/soil addititves	8,559	11%
Used on-site for other products	7	0%
Fiber[c]	-	0%
Unused	802	1%
Total, all types of utilization	**78,142**	**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.