



Report to Ecosystem Planning and Budget USDA Forest Service, Alaska Region

TONGASS NATIONAL FOREST: 2019 SAWMILL CAPACITY AND PRODUCTION REPORT

INTRODUCTION

Since 2000, the United States Forest Service (USFS), Alaska Region Office has conducted an annual key-informant survey of sawmills across the Tongass National Forest, spanning from Haines to Metlakatla. The purpose of the annual survey is to gather information regarding current sawmill operations including total estimated production capacity, actual production, wood supply source, forest products, market destinations, and general business expansion and retention challenges. The *Tongass National Forest: 2019 Sawmill Capacity and Production Report* summarizes key survey findings, provides a brief supplemental discussion, and presents a longitudinal perspective of sawmill performance during the past nineteen years. Survey results are organized into seven sections:

- Longitudinal Survey Results
- Sawmill Overview
- Capacity and Production Volume
- Wood Supply Source
- Primary Product by Species
- Production Volume by Product
- Markets

Sawmill key-informant survey results provide a framework for assessing sawmill performance over time, current business conditions and challenges, manufactured products and markets, and timber harvest from public and private lands.

METHODS

The 2019 sawmill survey, covering January to December 2019 production, was conducted from September to November 2020. Surveys were conducted via onsite, virtual, or telephone interviews. Rather than utilize a random sampling method to collect input, the USFS Alaska Region conducts a key-informant survey of all Southeast medium to large sawmills operating on a regular basis. To allow comparative longitudinal analysis, the survey instrument and population frame remained consistent from 2000 to 2019 and includes questions about capacity, equipment, jobs, sawmill activity, products, and markets. (Table 1). Because of travel and data



collection challenges during the COVID-19 pandemic, we worked with non-traditional local partners to gather information at mill sites and extended the data collection period from previous years¹.

Table 1. Survey Instrument Summary

Business Profile	Sawmill Activity	Primary Products	Other
Business Name, Owner's Name, Location, Sawmill Equipment Description, Sawmill Size Classification	Estimated Processing Capacity, Actual Production, Percent Overrun, Percent Underrun	Primary Products, Destination Markets	Log Source, Employment

POPULATION FRAME

The population frame was established in 2000 using criteria that required: 1) regular, consistent operation and 2) medium to large size classification. Neither of these criteria were defined in tangible metrics. In 2000, there were 20 sawmills that evolved into 22 sawmills with the subdivision of one sawmill in 2007. To maintain longitudinal consistency and preserve comparative value, the annual sawmill survey has only included the original 22 sawmills. Numerous small sawmills that operate on a seasonal, part-time, or contingent basis have operated across the region since 2000, each with varying degrees of success. Although these sawmills are a component of the greater Southeast Alaska forest products industry, they remain outside the original survey population frame and are subsequently not surveyed and excluded from further analysis in this report. However, of the remaining original set of mills identified in 2000, many have contracted to a point where they are not substantively larger than small mills that have never been surveyed.

During 2000, 20 medium- to large-scale sawmills operated across the Tongass National Forest with the greatest concentration located in southern Southeast Alaska (Table 2). Since 2000, more than half (59%) of these sawmills have closed and been uninstalled; no new sawmills of equal size classification have been established during the same timeframe. With little guidance of what constitutes a “medium- to large- scale sawmill, the survey pool has never been changed. During 2019, four sawmills (18%) remained active and thirteen sawmills (59%) were no longer in production (i.e., decommissioned, uninstalled). Five sawmills (23%) remain installed or partially installed with significant equipment onsite but were idle during calendar year 2019. Of noteworthy importance, ownership of Good Faith Lumber Company reverted to Thorne Bay Wood Products during late 2017 and is recorded as idle in the 2019 cycle.

¹ Many thanks to Karen Peterson (Southeast Conference) and Kate Marcille (University of Montana) for invaluable assistance with the 2019 survey.



Table 2. Sawmill Population Frame, Calendar Years 2000 – 2019

Active (4)	Idle (5)	Uninstalled (13)
Viking Lumber Company Icy Straits Lumber and Milling Company Western Gold Cedar Products Falls Creek Forest Products	Thorne Bay Wood Products (formerly Good Faith Lumber) St. Nick Forest Products The Mill Thuja Plicata Lumber D and L Woodworks	Gateway Forest Products Ketchikan Renaissance Group Herring Bay Lumber Pacific Log and Lumber Annette Island Sawmill Metlakatla Forest Products Silver Bay Incorporated Alaska Fibre Kasaan Mountain Lumber and Log Chilkoot Lumber Company Thorne Bay Enterprises Porter Lumber Company Northern Star Cedar

LONGITUDINAL SURVEY RESULTS

For the purposes of this report, total installed capacity includes the capacity of four active and five idle sawmills (N = 9). Capacity is defined as sawmill processing capability based on the net sawlog volume that could be utilized by the sawmill, as currently configured, during a standard 250-day per year, two shifts per day annual operating schedule – and not limited by the availability of workforce, raw materials, or market conditions. Table 3 shows that total installed capacity increased in 2019 to 135,400 MBF. The increase is attributed to the installation of additional processing equipment at the Viking Lumber Company and Western Gold Cedar Products, listed in Table 4.

Actual sawmill production during 2019 was approximately 15,210 MBF, a decrease of 40 MBF (-1%) compared to 2018. No sawmills reported higher production, three sawmills reported decreased production, and one indicated production from 2018 to 2019 remained the same. Sawmill capacity remained significantly underutilized in 2019; regional capacity utilization rate, based on an installed capacity of 135,400 MBF, is 11 percent. Sawmill employment was essentially unchanged from 2018 to 2019; approximately 50 full-time equivalent (FTE) positions include owners, operators, and other employees.

Table 3. Annual Sawmill Survey Results, Calendar Years 2000 – 2019 (Volume in MBF, Scribner Log Scale)

Year	Total Active Sawmills (#)	Sawmill Employment (FTEs)	Installed Sawmill Capacity (MBF)	Estimated Sawmill Production (MBF)	Volume NOT Included in Sawmill Production			Sawmill Utilization (%)
					Manufactured Products ^a	Log Exports	Total	
2019	4	50	135,400	15,210	500	c	NA	11
2018	7	52	107,900	15,250	750	c	NA	14
2017	8	51	113,650	15,544	550	c	NA	14
2016	9	58	113,650	17,912	1,300	c	NA	16
2015	9	51	113,650	18,540	145	c	NA	16
2014	10	54	119,400	18,830	570	c	NA	16
2013	10	60	120,400	17,593	920	c	NA	15
2012	10	58	120,400	13,842	899	c	NA	12

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2011	10	56	160,000	11,546	1,295	c	NA	7
2010	10	64	155,850	15,807	385	c	NA	10
2009	11	58	249,350	13,422	1,250	c	NA	5
2008	11	94	282,350	23,666	3,513	c	NA	8
2007	14	158 ^b	292,350	31,717	4,015	c	NA	11
2006	11	123	354,350	32,141	7,620	2,646	10,266	9
2005	12	136	359,850	34,695	0	3,541	3,541	10
2004	13	148	370,350	31,027	509	3,088	3,597	8
2003	13	155	369,850	32,005	763	17,030	17,793	9
2002	11	160	453,850	39,702	9,164	4,940	14,104	9
2000	19	321	501,850	87,117	46,079	27,522	73,601	17

^a Manufactured products primarily include chips and bark manufactured from utility logs, but may also include firewood.

^b Included 35 positions reported at the reopened Ketchikan Renaissance Group veneer mill, which only operated for a few months.

^c Data series discontinued.

Note: The annual sawmill capacity and production survey was not conducted during 2001.

SAWMILL OVERVIEW

Table 4. 2019 Active, Idle, and Uninstalled Sawmills [N = 22]

Sawmill	Community	Description	Current Status	Sawmill FTEs
Viking Lumber Company	Craig	Conventional carriage, band saw headrig, linebar and gang resaws, edgers, trim saw, log debarker and merchandiser, end-dogging circle saw scragg. Added chipping head slabber to large mill in 2018.	Active	38
Icy Straits Lumber and Milling Company	Hoonah	Mighty Mite sawmill, horizontal band resaw, log debarker and merchandiser (not installed), dry kiln, planer, moulder	Active	10
Western Gold Cedar Products (part of Northern Star Cedar breakup)	Thorne Bay	Shake and shingle mill, Meadows carriage mill, chain-fed scragg added in 2018	Active	2
Falls Creek Forest Products (formerly Southeast Alaska Wood Products)	Petersburg	Portable circle sawmill, trim saw, log and lumber decks, dry kiln, moulder	Active	.2
D & L Woodworks	Hoonah	Portable circle sawmill	Idle	.1
Thuja Plicata Lumber	Thorne Bay	Portable circle sawmills, carriage mill with circle saw headrig, shake mill, shingle mill	Idle	1.2
The Mill	Petersburg	Two portable circle sawmills	Idle	.1
Thorne Bay Wood Products (formerly Good Faith Lumber Company)	Thorne Bay	Portable circle sawmill, trim saw, log and lumber decks, dry kiln, planer, moulder	Idle	0
Alaskan Music Wood (formerly St. Nick Forest Products) (formerly W.R. Jones and Son Lumber Company)	Craig	Portable circle sawmill, dry kiln, planer, moulder	Idle	0
Northern Star Cedar	Thorne Bay	Mighty Mite sawmill	Uninstalled	0
Porter Lumber Company	Thorne Bay	Portable circle sawmill, dry kiln, planer	Uninstalled	0
Thorne Bay Enterprises (part of Northern Star Cedar breakup)	Thorne Bay	Portable circle sawmill, log infed and lumber outfeed decks	Uninstalled	0
Gateway Forest Products	Ketchikan	Twin band mill with end-dogging carriage, resaws, edgers, trim saw, log debarker and merchandiser	Uninstalled	0
Ketchikan Renaissance Group (formerly Gateway Forest Products)	Ketchikan	Rotary veneer mill, log debarker and merchandiser	Uninstalled	0

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Herring Bay Lumber	Ketchikan	Conventional carriage, circle saw headrig, resaw edger, trim saw	Uninstalled	0
Pacific Log and Lumber	Ketchikan	Conventional carriage mills (2) with circle saw headrigs, horizontal band resaw, edger, trim saw, log debarker and merchandiser, dry kiln, planer mill, 60-foot band mill	Uninstalled	0
Annette Island Sawmill (aka KPC Hemlock Mill)	Metlakatla	Conventional carriage, single cut band saw headrig, linebar resaw, gang edger/resaw, edger, trim saw, log debarker, merchandiser	Uninstalled	0
Metlakatla Forest Products	Metlakatla	Conventional carriage, circle saw headrig with top saw, horizontal resaw, edger, log debarker, merchandiser	Uninstalled	0
Silver Bay Incorporated	Wrangell	Conventional carriages, band saw headrigs, linebar resaw edgers, trim saw, planer mill, log debarker, merchandise	Uninstalled	0
Alaska Fibre	Petersburg	Portable circle sawmill, horizontal band resaw, edger	Uninstalled	0
Kasaan Mountain Lumber and Log	Kasaan	Conventional carriage, circle saw headrig, circle saw linebar resaw, edger, debarker	Uninstalled	0
Chilkoot Lumber Company	Haines	Conventional carriage, eight-foot band headrig, six and seven foot band resaws, debarker, chipper, and edger	Uninstalled	0

CAPACITY AND PRODUCTION VOLUME BY MILL

Table 5 shows that the largest sawmill, in terms of both capacity and production, is the Viking Lumber Company. Capacity in the remaining three operating mills combined (27,500 MBF) equals about 30 percent of the Viking mill, which contains 68 percent of total production capacity in the region.

Table 5. 2019 Estimated Sawmill Capacity and Actual Production [Includes 4 Active and 5 Idle Sawmills, N = 9]

Sawmill Name	Estimated Sawmill Capacity [Scribner Log Scale, MBF] ^a	Actual Sawmill Production [Scribner Log Scale, MBF] ^b	Utilization of Installed Capacity [Percent]
Viking Lumber Company	92,500	14,000	15
Icy Straits Lumber and Milling Company	3,000	450	15
Western Gold Cedar Products	21,500	750	<1
Falls Creek Forest Products	3,000	10	1
D & L Woodworks	1,000	Idle	--
Thuja Plicata Lumber	1,000	Idle	--
The Mill	6,000	Idle	--
Thorne Bay Wood Products	6,250	Idle	--
St. Nick Forest Products	1,150	Idle	--
Total	135,400	15,210	11%

^a Estimated Sawmill Capacity: An estimate of sawmill processing capability based on the amount of net sawlog volume (Scribner log scale) that could be utilized by the sawmill, as currently configured, during a standard 250-day per year, two shifts per day, annual operating schedule, and not limited by availability of workforce, raw materials, or market.

^b Actual Sawmill Production: The net sawlog volume (Scribner log scale) used during the year to manufacture sawn products.



WOOD SUPPLY SOURCE

Table 6a and 6b show the source of wood received by Southeast Alaska sawmills in 2019. The majority wood originated from the Tongass National Forest and lands managed by the State of Alaska. No material was sourced from Native lands in 2019, down from 350 MBF in 2018.

Table 6a. 2019 Processed Log Sources, Volume Included in Actual Sawmill Production [N = 4]

Sawmill	National Forest	Other Federal	State of Alaska	Private Native	Private Other	Import	Total
Viking Lumber Company	7,000		7,000				14,000
Icy Straits Lumber and Milling Company	450						450
Western Gold Cedar Products	750						750
Falls Creek Forest Products	4				6		10
Total [Scribner Log Scale, MBF]	8,204	0	7,000	0	6	0	15,210
Percent	54	0	46	0	<1	0	100

Table 6b. 2019 Processed Log Sources, Volume Not Included^a in Actual Sawmill Production

Sawmill	National Forest	Other Federal	State of Alaska	Private Native	Private Other	Import	Total
Total [Scribner Log Scale, MBF]	300	0	200	0	0	0	500
Percent	60	0	40	0	0	0	100

^a Primary manufactured products NOT included in actual sawmill production consists of all non-sawn products (e.g., chips, firewood, poles, house logs) that are manufactured independently of normal sawmill operations – products from logs that do not go through the sawmill. Non-sawn products, including chips and firewood, that result from processing sawmill residues and byproducts are not included in this category.



PRIMARY PRODUCT BY SPECIES

Table 7a and 7b show the species of wood processed in Southeast Alaska sawmills in 2019. Sitka spruce and western hemlock each represented 21 percent of production. The majority of volume processed was Western redcedar, comprising 52 percent of total production.

Table 7a. 2019 Primary Product by Species, Volume Included in Actual Sawmill Production

Sawmill	Sitka Spruce	Western Hemlock	Western Redcedar	Alaska Yellow Cedar	Other	Total Sawmill Production
Viking Lumber Company	3,000	3,000	7,200	800		14,000
Icy Straits Lumber and Milling Company	180	135		135		450
Western Gold Cedar Products			750			750
Falls Creek Forest Products	8	2		2.5		10
Total [Scribner Log Scale, MBF]	3,188	3,137	7,950	938	0	15,210
Percent	21	21	52	6	0	100

Table 7b. 2019 Primary Product by Species, Volume Not Included^a in Actual Sawmill Production

Sawmill	Sitka Spruce	Western Hemlock	Western Redcedar	Alaska Yellow Cedar	Other	Total Sawmill Production
Total [Scribner Log Scale, MBF]	50	450	0	0	0	500
Percent	10	90	0	0	0	100

^a Primary manufactured products NOT included in actual sawmill production consists of all non-sawn products (e.g., chips, firewood, poles, house logs) that are manufactured independently of normal sawmill operations – products from logs that do not go through the sawmill. Non-sawn products, including chips and firewood, that result from processing sawmill residues and byproducts are not included in this category.

PRODUCTION VOLUME BY PRODUCT

Table 8 shows that more than half of wood received by Southeast Alaska sawmills in 2019 was processed into dimension lumber, followed by cants and timbers. Dimension lumber is a commodity product for structural use that is highly price competitive. Southeast Alaska sawmills compete with both domestic and international suppliers to make inroads in these markets. Conversely, higher grade products like shop lumber, cants and timbers, and niche products generally can command a price premium. The Viking Lumber Company's production focused mainly on dimension lumber, assumed unchanged from 2018 owing to no survey response.

Table 8. 2019 Sawmill Production by Product, Volume Included in Actual Sawmill Production

Sawmill	Dimension Lumber	Shop Lumber	Cants Timbers	Other	Total Sawmill Production
Viking Lumber Company	8,000	2,850	3,150		14,000
Icy Straits Lumber and Milling Company	150	150	150		450
Western Gold Cedar Products	375			375	750
Falls Creek Forest Products	10				10
Total [Scribner Log Scale, MBF]	8,535	3,000	3,300	375	15,210
Percent	56	20	22	3	100

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MARKETS

Tables 9a and 9b contain information about markets served by Southeast Alaska sawmills. In 2019, the vast majority (78 percent) of processed material was sent to destinations in the Continental United States, followed by international exports to the Pacific Rim. One hundred percent of volume not included in actual production was sent to Canada.

Table 9a. 2019 Product Destination, Volume Included in Actual Sawmill Production [N = 4]

Sawmill	Alaska	Continental United States	Canada	Pacific Rim	Other	Total Sawmill Production
Viking Lumber Company		11,144		2,856		14,000
Icy Straits Lumber and Milling Company	450					450
Western Gold Cedar Products		750				750
Falls Creek Forest Products	10					10
Total [Scribner Log Scale, MBF]	460	11,894	0	2,856	0	15,210
Percent	3	78	0	19	0	100

Table 9b. 2019 Product Destination, Volume Not Included in Actual Sawmill Production ^a

Sawmill	Alaska	Continental United States	Canada	Pacific Rim	Other	Total Sawmill Production
Total [Scribner Log Scale, MBF]	0	0	500	0	0	500
Percent	0	0	100	0	0	100

^a Primary manufactured products NOT included in actual sawmill production consists of all non-sawn products (e.g., chips, firewood, poles, house logs) that are manufactured independently of normal sawmill operations – products from logs that do not go through the sawmill. Non-sawn products, including chips and firewood, that result from processing sawmill residues and byproducts are not included in this category.