# 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

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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 years[1].

**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<br>Icy Straits Lumber and Milling Company<br>Western Gold Cedar Products<br>Falls Creek Forest Products | Thorne Bay Wood Products<br>(formerly Good Faith Lumber)<br>St. Nick Forest Products<br>The Mill<br>Thuja Plicata Lumber<br>D and L Woodworks | Gateway Forest Products<br>Ketchikan Renaissance Group<br>Herring Bay Lumber<br>Pacific Log and Lumber<br>Annette Island Sawmill<br>Metlakatla Forest Products<br>Silver Bay Incorporated<br>Alaska Fibre<br>Kasaan Mountain Lumber and Log<br>Chilkoot Lumber Company<br>Thorne Bay Enterprises<br>Porter Lumber Company<br>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 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 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 infeed 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 |

| | | | | |
|---|---|---|---|---|
| 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** |

## 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, po0les, 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.

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