



# 2020 Major Timber Processing Facilities in British Columbia

Ministry of Forests





This edition of the *Major Primary Timber Processing Facilities in British Columbia* report summarizes the activity of timber processing facilities operating in 2020. It covers lumber mills, veneer/plywood/OSB/panel mills, pulp/paper mills, chip mills, pellet mills, shake and shingle mills, utility pole/pole/post mills and log home mills. For those firms producing more than one product, each product is listed in the corresponding section of this report. However, information about secondary manufacturing facilities (e.g., remanufacturing or millwork) operating in the province is beyond the scope of this report.

Information contained in this report was gathered through the 2020 and earlier surveys of individual processing facilities. If survey responses were not provided, staff of the Ministry of Forests might use trade publications and corporate annual reports to make estimates. In some cases, Ministry staff provided estimates based on their knowledge of operations and information reported in previous years, as well as production information for selected forest products from Statistics Canada.

This report has been developed by the Economics and Trade Branch with the cooperation of mill representatives and industry associations that provided data and support for the BC Mill List survey.

This report is available online at:

<u>https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-</u> mill-information/major-timber-processing-facilities-survey

Please note that any comments or corrections could be sent to <u>Mill.Survey@gov.bc.ca</u> or by mail to the following location:

Economics and Trade Branch Ministry of Forests PO Box 9514, STN PROV GOVT 3<sup>rd</sup> Floor, 545 Superior Street Victoria BC V8V 1T7

This report acknowledges that its development and writing was done with respect on the territorial lands of the ləkwəŋən, Songhees and Esquimalt peoples whose historical relationships with the land continue to this day.





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## **Key Definitions and Abbreviations**

## Key Definitions

**Major Primary Timber Processing Facilities**: Facilities that process logs or wood residue. They include whole log chipping, lumber, pulp and paper, veneer/plywood/laminated veneer lumber (LVL), oriented strand board (OSB), shake and shingle, pole/utility pole/post, panel, and log home mills. They do not include secondary manufacturing facilities that use lumber as their major input.

**Hog Fuel**: Waste wood material derived from a grinding or milling process. It is normally ground down to specific characteristics for use as a fuel to power equipment used in timber processing facilities or bioenergy plants. It can also be used in other areas such as paddocks, gardens, and pathways.

Hog fuel can be obtained as a residual from a milling process, which can contain a mixture of bark and wood waste. It can also be obtained by grinding undesirable trees, stumps, branches, and wood pieces from industrial/home demolition.

## Abbreviations for Products

CHP	Chip	PLY	Plywood	PPR	Paper
LBR	Lumber	PNL	Panel	SS	Shake and Shingle
LVL	Laminated Veneer Lumber	PST	Fence Post	SID	Siding
OSB	Oriented Strand Board	PLE	Pole	UTI	Utility Pole
PLT	Pellet	PLP	Pulp	VNR	Veneer



# Introduction

This report provides summary statistics derived from the 2020 and earlier mill surveys. Fibre supply and consumption in the province are examined through a series of charts and tables. These statistics are followed by industry analysis for lumber mills, veneer mills, pulp and paper mills, pellet mills, as well as shake and shingle mills. The Appendix to this report provides lists of mills operating in 2020.

Each year, surveys are sent to mill representatives. Based on their responses, mills are classified as a) open with responses, b) presumed open without responses, c) did not operate at all during the year (temporary or indefinite closures), or d) closed (permanently). The statistics in this report are derived from mills in categories a) and b). Mills that announced permanent full-mill closures in 2020 are categorized as a) for the year 2020 if they operated at some point during 2020. The actual impact of these closed mills will be reported in the next report.

Please note that some historical information in this report has been adjusted to reflect the latest information received from our mill contacts or regional staff and therefore, may differ from the information published in previous reports.

# **Provincial Log Supply and Demand**

## Log Supply

- Harvesting of Crown, private, and federal lands provide a sustainable level of commercial timber for industrial use. In 2020, the total timber harvest was 52 million cubic metres, down 4% from 2019. Crown land represented 90.4% of the total harvest volume, followed by private land (9.3%), and federal land (0.3%). Regionally, 74% of the harvest was from Interior, and the rest from the Coast.
- BC also imported a small volume of logs from the United States (US). The volume of imported logs decreased by 12%, from 121,366 cubic metres in 2019 to 106,220 cubic metres in 2020.

## Log Demand

- Logs harvested in the province are widely used by various types of major timber processing facilities. Surplus logs are shipped to other jurisdictions.
- As shown in Table 1, the overall log consumption by BC's primary wood processing facilities was 51 million cubic metres in 2020, which represents a decrease of 7% (from 55 million cubic meters) in 2019. Of this total, log use for each sector is shown below:
  - Lumber mills were the largest users of logs, accounting for 69% of total log use. 111 lumber mills consumed 35.3 million cubic metres of logs in 2020, a 7% decrease from 2019.
  - Chip and pulp mills consumed more than 6 million cubic metres of logs. Veneer and OSB mills consumed 4.9 million cubic metres of logs. Together they accounted for 22% of total log use.
  - Shake and shingle mills and other mills consumed over 1.8 million cubic metres of logs, or about 4% of total log use.
  - Log exports declined 43% from 4.7 million cubic metres in 2019 to 2.7 million cubic metres in 2020, accounting for 5% of total log use.

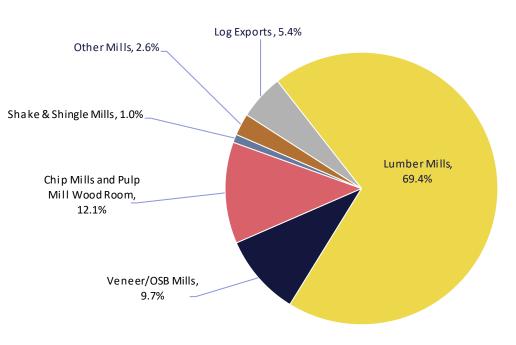


#### Table 1: Estimated BC Log Use and Log Availability, 2020

	Number of Mills	Est. Volume Used (000 m <sup>3</sup> )	Per Cent	Number of Mills	Est. Volume Used (000 m <sup>3</sup> )	Per Cent	Number of Mills	Est. Volume Used (000 m <sup>3</sup> )	Per Cent
Primary Log Use		Coast			Interior			Province	
Lumber Mills	42	5,696	45.2%	69	29,580	77.3%	111	35,276	69.4%
Veneer/OSB Mills	5	1,928	15.3%	11	2,990	7.8%	16	4,918	9.7%
Chip Mills and Pulp Mill Wood Room	11	2,199	17.5%	12	3,932	10.3%	23	6,131	12.1%
Shake & Shingle Mills	30	480	3.8%	4	15	0.0%	34	495	1.0%
Other Mills	8	181	1.4%	44	1,142	3.0%	52	1,324	2.6%
Log Exports	-	2,112	16.8%	-	610	1.6%	-	2,722	5.4%
TOTAL	96	12,597	100%	140	38,269	100%	236	50,866	100%
Log Availability		Coast			Interior			Province	
Total Harvest		13,357			38,237			51,594	
Log Imports		-			-			106	
TOTAL		13,357			38,237			51,700	
Difference		760	5.7%		-32	-0.1%		834	1.6%

Notes:

- 1. Total harvest includes all logs, special forest products, species and grades billed to the Crown, private and federal lands. Waste, reject, and Christmas trees are excluded.
- 2. The log supply exceeded log use by 0.8 million cubic metres (1.6%) in 2020. This difference could be attributed to several factors, including seasonality inherent in timber harvesting, log inventory changes, different company reporting years, and the estimates made for mills that did not complete the survey.
- 3. Other mills listed include utility pole mills, fence pole mills, post mills, pellet mills, and log home mills.
- 4. The Veneer/OSB mills category includes logs consumed by an OSB mill that recently changed its production line to produce both OSB and siding products.



### Figure 1: Total Primary Log Use – 51 million m<sup>3</sup> - 2020

Sources: BC Mill List Survey; BC Stats; BC Ministry of Forests log export statistics for the proportion of exports from the Coast versus Interior.



## Product Recovery from Lumber Mills

As shown in Table 2 and Figure 2, 47% of logs entering lumber mills were converted to lumber, 36% were converted to residual chips for pulp and pellet mills, and 16% were converted to sawdust and shavings used by pellet and panel mills.

#### Table 2: Estimates of Product Recovery from Lumber Mills, 2020

	Formula	Units	Coast	Interior	Province
Number of Mills			42	69	111
Log Input	А	(million m <sup>3</sup> )	5.7	29.6	35.3
Recovery of Lumber from Lumber Mills					
Nominal Lumber Output	В	(billion fbm)	1.3	8.5	9.8
Lumber Recovery Factor	C=B/A	(mfbm/m3)	0.226	0.288	0.278
Nominal to Real Conversion Factor*	D	(m³/mfbm)	2.07	1.61	1.67
Real Lumber Output	E=BxD	(million m <sup>3</sup> )	2.7	13.7	16.4
Real Lumber Output as Per Cent of Log Input	F=E/A	(%)	46.8%	46.4%	46.5%
Shrinkage (5% of Lumber Output for Interior Only)	G=Ex5%	(million m <sup>3</sup> )	-	0.7	0.7
Lumber Shrinkage as Per Cent of Log Input	H=G/A	(%)	-	2.3%	1.9%
Recovery of By-Product Chips from Lumber Mills					
By-Product Chip Output	J	(million bdu)	0.75	3.69	4.45
By-Product Chip Recovery Factor	K=(J/A)x1000	(bdu/000 m <sup>3</sup> )	132	125	126
Conversion Factor to Solid Wood Equivalent (SWE)**	L	(m³/bdu)	2.85	2.82	2.82
Converted By-Product Chip Output (SWE)	M=JxL	(million m <sup>3</sup> )	2.1	10.4	12.5
Converted By-Product Chip Output (SWE) as Per Cent of Log Input	N=M/A	(%)	37.6%	35.1%	35.6%
Recovery of Sawdust and Shavings from Lumber Mills					
Estimated Sawdust and Shaving Output***	0	(million bdu)	0.3	1.7	2.0
Conversion Factor to Solid Wood Equivalent (SWE)**	Р	(m³/bdu)	2.79	2.78	2.78
Converted Sawdust and Shaving Output (SWE)	Q=P*O	(million m <sup>3</sup> )	0.9	4.8	5.7
Converted Sawdust and Shaving Output (SWE) as Per Cent of Log Input	R=O/A	(%)	15.6%	16.1%	16.0%

Notes:

1.\*Conversion factors are used to convert the nominal lumber output or by-product chips to solid wood equivalent in m<sup>3</sup>.

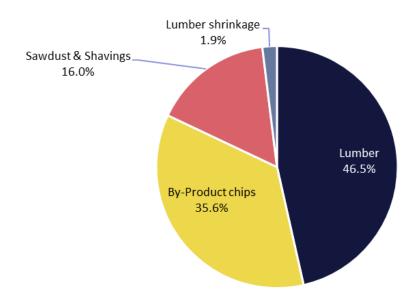
fb = board foot; mmfbm = million board feet; mfbm = thousand board feet; m<sup>3</sup> = cubic metres; bdu = bone dry unit = 2400 pounds.

Conversion factors used in the analysis are based on Forintek Canada Corp., "Conversion Factors for the Forest Products Industry in Western Canada", Special Publication No. SP-24R, 1985 and "Major Primary Timber Processing Facilities in British Columbia 2007", Appendix 1, page 24. 2.\*\* For mills that reported their 2020 chip, sawdust, and shaving output, Ministry staff calculated a mill-specific SWE conversion factor by dividing the total amount of logs used to produce chips, sawdust and shavings by the chip, sawdust, and shaving output. The total logs used to make chips, sawdust, and shavings are measured as the total log input, net of real lumber output and 5% lumber shrinkage for each Interior lumber mill. For mills that did not report their 2020 chip, sawdust, and shaving output, Ministry staff applied the average conversion factor of 2.75 for lumber mills in the Interior and 2.86 for sawmills on the Coast.

3.\*\*\* Collection of data on sawdust and shaving output began in 2021. For mills that did not respond to survey questions on sawdust and shaving production, their output was estimated. Please note that the estimated sawdust and shaving output may be higher or lower than the actual output.



Figure 2: Estimated Product Recovery from Lumber Mills, 2020



## Fibre Used by Pulp, Pellet, Panel, and Chip Mills

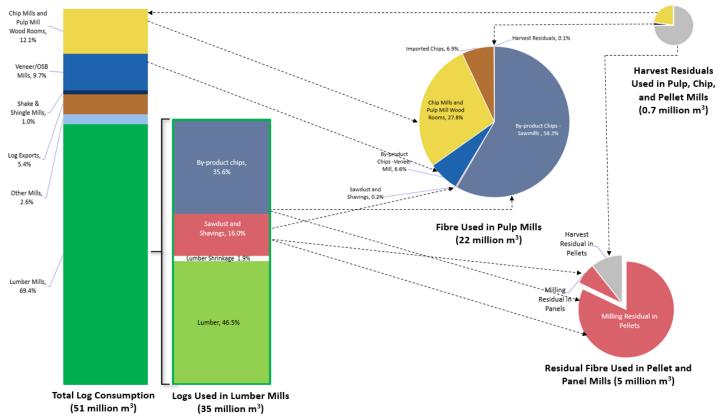
Figure 3 shows how the fibre flows among different subsectors in BC. Some of the key findings include:

- BC pulp mills consumed about 22 million cubic metres of fibre in 2020. Of this total, pulp mills consumed about 14 million cubic metres of residual chips produced by lumber mills and veneer mills, accounting for 65% of their fibre input. Pulp mills also consumed about 6 million cubic metres of whole-log chips produced by chip mills and pulp mills, representing 28% of their total fibre input. While these whole-log chips were more expensive than residual chips, they played an important role in maintaining a consistent fibre supply for pulp mill operations.
- In addition to pulp mills, pellet and panel mills also count on residual fibre which includes milling residuals and harvest residuals.<sup>1</sup> BC pellet mills are the largest consumers of residual fibre. They, together with panel mills, consumed about 5 million cubic metres of residual fibre in 2020.

<sup>&</sup>lt;sup>1</sup> Milling residuals include sawdust and shavings, residual chips, and other fibre such as mill yard waste. Harvest residuals refer to non-sawlog fibre removed from cut blocks following harvesting activities and transported directly to mills to make wood products.







#### Notes:

The sawdust and shaving production shown in the above chart is mixed with the production reported by the company and estimated by Ministry staff. For more information on specific estimating methods, please refer to footnote 2 of Table 2. The estimated sawdust and shaving production may be higher or lower than the actual production. Please note that the survey only tracks the volume of sawdust and shavings consumed by pellet, panel, and pulp mills, but not the volume used for other purposes, such as export, or consumption as a fuel source.
Pulp mill wood room is the place where pulp logs are debarked and processed into wood chips to feed the mill.

3. This figure has incorporated retroactive data adjustments made by the pulp industry in November 2022.

# **Provincial Chip Supply and Demand**

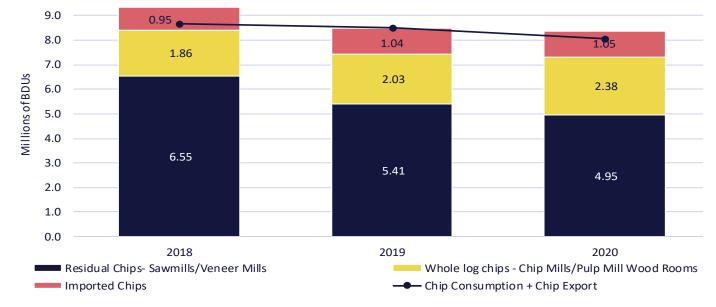
Pulp and paper mills are the largest chip consumers in BC, transforming low-value wood chips into high-value pulp and paper products. There are three main sources of chip supply: 1) residual chips produced by lumber mills and veneer mills, 2) whole-log chips produced by pulp or chip mills, and 3) chips imported from the US. There can be very wide year-to-year swings in chip supply dynamics.

As shown in Figure 4 and Table 3, the provincial chip supply remained stable from 2018 to 2020. In the supply portfolio, the residual chip supply decreased by 8% due to lumber mill curtailments. As alternative fibre sources, whole-log and imported chip supplies increased by 17% and 1%, respectively in 2020 over 2019.

Overall chip demand, including pulp and paper mill chip consumption and chip exports, was down 1% in 2020 compared to 2019. Specifically, pulp and paper mills consumed over 8 million Bone Dry Units (BDUs) of chips, down 5% from 2019. Chip exports reached 276,000 BDUs in 2020, up 37% from 2019.







Source: 2020 BC Mill List Database and BC Stats

Note: This figure has incorporated retroactive data adjustments made by the pulp industry in November 2022.

Table 3 and the discussion below provide more details on chip supply and demand at the regional level for 2018-2020:	
Table 3: BC Chip Supply and Demand (000 BDUs), 2018 to 2020	

Sources of Chips	2018	2019	2020
Residual Chip Production	6,549	5,406	4,953
Whole Log Chip Production	1,856	2,030	2,379
Total Chip Production	8,405	7,436	7,331
Total Chip Consumption	8,684	8,526	8,074
Production and Consumption Gap	-279	-1,090	-743
Provincial Chip Trade			
Chip Import	954	1,041	1,050
Chip Export	0.3	0.2	0.3
Net Import	954	1,040	1,049
Provincial Chip Balance	675	-50	306

Sources: 2020 BC Mill List Database and BC Stats.

Notes:

1. The historical data shown in the table above may have been adjusted to include additional information that was not available at the time of the initial data release.

2. This table has incorporated retroactive data adjustments made by the pulp industry in November 2022.

### Chip Supply and Demand on the Coast

- The Coastal chip supply consisted of residual chips, whole-log chips, and imported chips from the US. In 2020, residual chips accounted for 35% of the Coastal chip supply, followed by whole-log chips (31%), and imported chips (34%). Compared to 2019, the overall supply of chips increased by 6% in 2020, primarily due to the increase in the supply of whole-log chips.
- The Coastal chip demand originated from Paper Excellence's four pulp mills in Crofton, Port Alberni, Powell River and Port Mellon, and Harmac Pacific in Nanaimo. The overall demand for chips decreased 9% in 2020 relative to 2019.
- From 2018 to 2020, the regional supply of chips could not keep up with regional demand. The difference was made up with imported chips. With the potential reduction of allowable annual cut (AAC) and further lumber mill closures, chip supply constraints for Coastal pulp mills are likely to continue. These mills will rely more on whole-log and imported chips.

## Chip Supply and Demand in the South

- In the Southern Interior, residual chips accounted for over 71% of the regional chip supply, followed by whole-log chips (27%) and imported chips (2%) in 2020. Compared to 2019, the overall supply of chips in the South increased by 1%, driven by the rise of whole-log chip supply.
- The chip demand originated from Domtar, Paper Excellence's Skookumchuk Pulp, Mercer's Celgar, West Fraser's Quesnel River Pulp, and Cariboo Pulp and Paper in this region. A small amount of chips was exported from the Southeast to the US. The overall chip demand in the South was about 1% higher in 2020 than in 2019.
- From 2018 to 2020, the regional chip supply could not meet regional demand. Strong demand for wood chips from Coastal pulp mills resulted in competition for residual chips in this area. A shortage of chips relative to regional demand was seen in 2020.

## Chip Supply and Demand in the North

- In the Northern Interior, residual chips accounted for 74% of the regional chip supply in 2020 and whole-log chips made up the rest. Compared to 2019, overall chip production decreased by 9%, mainly caused by a series of temporary lumber mill curtailments in the region.
- The demand for chips in the North originated from Canfor pulp mills (three in Prince George and one in Taylor), and one Paper Excellence pulp mill in Mackenzie. The overall regional chip demand decreased by 9% in 2020 relative to 2019, due to pulp mill curtailments due to COVID-19 and lumber mill closures in the region.
- From 2018 to 2020, the regional chip supply exceeded regional demand. The reduced supply of residual chips was partially offset by the increased supply of whole-log chips. A surplus was seen in 2020 but it is expected to decrease in the future because of potential AAC reductions, further lumber mill curtailments/closures, and the competitive use of chips from other mills (e.g., pellet mills) in this region.



## **Provincial Forest Sector Investments**

Forest companies continue to invest in the wood manufacturing sector to diversify their products and increase their long-term competitiveness. A growing number of BC forest companies have invested in upgrading their facilities to manufacture advanced forest products, which represent innovative opportunities for manufacturers in the province. According to Statistics Canada, total forest capital expenditures were \$2 billion in 2019, of which \$1.4 billion was for wood and paper manufacturing.

Some key events related to forest manufacturing investments in BC in 2020 are summarized below:

- In March, the Huu-ay-aht First Nation announced the purchase of 51% of Tree Farm Licence (TFL) 44 for \$35 million and a 7% stake in Western Forest Products' Port Alberni lumber mill for \$1 million.
- In September, Canfor Pulp in Prince George received \$2 million in funding through the province's Innovative Clean Energy Fund. This fund would support the project to convert forest by-products and wood waste to renewable energy for the company's kraft pulp mill business.
- In September, Canfor Vavenby lumber mill was sold a year after it was closed. Of the total lumber mill, 75% interest was sold to Brian Fehr, founder and former chairman of the BID Group, a multinational corporation, and current chairman of the board for SmartLam North America, which produces mass timber products. The other 25% was sold to the Simpcw First Nation.
- In November, Peak Renewables announced the purchase of forest tenures and mill assets from Canfor through a multi-year \$30 million deal in Fort Nelson. The company would build a 600,000-tonne-per-year wood pellet plant in the region. The company also invested \$10 million to purchase two previously closed mills: the PolarBoard OSB/panel mill and Tackama plywood mill.
- In November, West Fraser announced the procurement of all the outstanding common shares of Norbord Inc. in an all-stock transaction valued at about \$4 billion.
- In December, Paper Excellence announced it would invest \$13 million to upgrade its Port Alberni paper mill. The investment would upgrade and enable both paper machines at the facility to make food grade paper simultaneously.
- In December, Interfor announced a \$4.3 million investment in its Adam's Lake facility to add a new kiln and construct a new building to accommodate it. This investment would increase the production capacity of the lumber mill. According to the quarterly report, Interfor made this commitment after buying Canfor's cutting rights.
- The San Group invested more than \$150 million into a lumber mill and associated remanufacturing mill in Port Alberni between 2017 and 2020, creating up to 200 new jobs over that period. The facility started operations on May 29, 2020. The company also bought another specialty mill in Port Alberni, known as Chalwood Forest Products, that had been dormant for approximately a year.



## **New Trends in the Forest Sector**

### **Engineered Wood Products**

Engineered wood products (EWPs) are made from connecting existing solid and composite wood-based products to form products with improved properties for both structural and non-structural construction purposes. EWPs for structural purposes are often referred to as Mass Timber.

Mass Timber construction utilizes EWPs that usually involve lamination and/or compression of multiple layers of smaller pieces of wood to create larger panels. The process creates a very strong panel that meets the safety and strength requirements needed to build tall wood structures. Common Mass Timber products include cross laminated timber (CLT), glue laminated timber (glulam) and dowel laminated timber (DLT). According to Statistics Canada, the value of structural EWP manufacturing sales grew rapidly from \$161 million in 2013 to \$632 million in 2020. There were more than 500 mid-rise wooden buildings at various stages of completion across Canada in 2020.

#### Forest Bioproducts

The growing forest bioeconomy is creating new economic opportunities for BC's pulp and paper industry.

In the bioeconomy, renewable and sustainably sourced biomass resources such as trees, agricultural crops, and organic residuals from harvesting and timber processing are used to provide a range of consumer and industrial products to society.

BC pulp and paper producers are looking at the potential growth of the new industry. Potential products range from food additives and textiles to construction materials, auto parts, bioplastics, biochemicals, and fuel for vehicles and planes.

The future development of new innovative products and applications to replace existing products is expected to help the forest sector adapt to changing market needs, improve financial performance, demonstrate its commitment to environmental performance, and create more jobs.



## **Industry Analysis**

## Lumber Industry

#### Industry Overview

Lumber is made from logs of different species and qualities that are processed in lumber mills into dimensions or specialty products. Lumber is usually classified into two main groups, including rough and finished. Rough lumber is used mainly in construction applications or is an intermediate processing stage for other mills to further process. Finished lumber adds value to rough lumber and is produced in various grades and sizes.

The lumber industry plays an important role in the BC economy. In 2020, the lumber mill sector represented 21% of the total GDP generated by the forest sector. Lumber mill sales totaled \$5.6 billion, accounting for 53% of total wood product manufacturing sales.

BC is the largest softwood lumber exporter in Canada, accounting for 54% of total Canadian softwood lumber export value in 2020. BC exported 18.2 million cubic metres of softwood lumber to world markets in 2020, down 1.8 million cubic metres from 2019. Although the volume of exports fell, the total value of exports increased by 13%, from \$4.8 billion in 2019 to \$5.4 billion in 2020, driven by skyrocketing lumber prices during the second half of the year. Of the total export volume, 72% was destined for the US, followed by China (16%) and Japan (7%).

2020 was a volatile year for the BC lumber industry. In the first half of 2020, a number of major lumber producers cut back their production and took downtime due to COVID-19 concerns and restrictions and transportation challenges. In the meanwhile, lumber demand surged because home building and renovations soared across North America. The supply and demand imbalance led to record-high lumber prices in the second half of the year. The price rocketed from around US\$400 per thousand board feet in February to an all-time high of over US\$950 per thousand board feet in early October. By the end of 2020, lumber prices had fallen to US\$870, which was still twice as high as pre-pandemic prices.<sup>2</sup>

#### Mill Summary Statistics

The following section presents summary statistics from 2000 onward for major lumber mills with an annual capacity of at least 40 million board feet per year:

#### Number of Mills, Capacity, Output, and Input

- In 2020, there were 62 lumber mills in BC with an annual capacity of at least 40 million board feet per year. 17 of them were on the Coast and 45 of them were in the Interior.
- The top six producers were Canfor, West Fraser, Tolko, Interfor, Western Forest Products, and Dunkley Lumber. Regionally, Western Forest Products was the largest Coastal producer, accounting for 32% of Coastal lumber mill output capacity. Canfor was the largest producer in the Interior, representing 29% of the Interior lumber mill capacity.

<sup>&</sup>lt;sup>2</sup> Source: 2020 Weekly Price Reports Issued by the Ministry of Forests



- As shown in Table 4, the provincial major lumber mill capacity decreased 7% in 2020 over 2019.<sup>3</sup> Several major lumber facilities –Canfor's Vavenby lumber mill, Tolko's lumber mill in Quesnel, West Fraser's lumber mill in Chasm, and Interfor's lumber mill in Hammond were permanently closed in BC in 2019. These closures, caused by market weakness, fibre supply constraints and business reconfiguration, reduced provincial lumber mill capacity by over 650 million square feet.
- Total input and output were down 6% in 2020 compared to 2019, as a result of the permanent and temporary mill curtailment. At the time of writing, all temporarily curtailed mills were back to their normal operations.

#### Commodity vs. Specialty Lumber mills

- Commodity lumber mills are defined as primary timber processing facilities that produce dimension lumber, which is typically two inches thick and of various lengths and widths. Specialty lumber mills are defined as primary wood processing facilities that produce wood products for special purposes and do not fall into dimensional lumber categories.
- The BC lumber industry produces a broad range of products, from commodity wood products to specialty wood products. Most lumber mills in the Interior focus on commodity lumber production, while on the Coast, a large number of lumber mills produce specialty wood products.

#### Average Capacity, Capacity Utilization, and Lumber Recovery Factor

- Average capacity is a key indicator to measure a lumber mill's size. As shown in Table 4, the average annual capacity of Interior lumber mills was 204 million board feet, almost double the size of Coastal lumber mills (118 million board feet).
- One key indicator to assess mill performance is capacity utilization. It is measured by output as a percent of mill capacity. As shown in Table 4, capacity utilization rates for lumber mills on the Coast are lower than lumber mills in the Interior. Most Interior lumber mills produce commodity lumber, which requires large-scale operations to increase their production and reduce unit costs. Those mills generally operate on a two-shift or higher basis, resulting in higher capacity utilization rates. Unlike Interior lumber mills, many Coastal lumber mills are specialty mills that make products based on the unique supply of logs and demand for their products. These mills have a wide variety of shift configurations, resulting in lower capacity utilization rates. The provincial capacity utilization rate increased 2%, from 84% in 2019 to 86% in 2020.
- Another key indicator to assess mill efficiency is the lumber recovery factor (LRF), which is measured by lumber output as a share of log input. The LRF for the Interior is higher than the Coast due to the difference in species, the age of log inputs, more technological advances, and greater uniformity of products from Interior mills compared to Coastal mills. Computer-optimized log and lumber scanning technology helped lumber mills reduce fibre and value losses and therefore improved the LRF for Interior mills from 1990 to 2003. However, this upward trend ended as mills switched to processing beetle-damaged logs from 2004 to 2013. Since 2014, the Interior LRF has seen an upward trend due to the reduction in the amount of beetle-damaged logs as inputs and the closure of less efficient mills. The Coastal LRF has seen a slight decline over the last two years.

<sup>&</sup>lt;sup>3</sup> Mills that have announced permanent closures during 2020 were categorized as active mills for the survey year. The actual impact of mills permanently closed in 2020 will be captured in the next report.





#### Table 4: BC Lumber Mill Statistics for Mills with an Estimated Annual Capacity of at Least 40 Million Board Feet

														% change
COAST	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2000-2020
Number of Mills		27	21	20	17	17	18	17	18	18	17	17	17	-54%
Total Capacity	billion board feet per year	3.1	2.3	2.3	2.1	2.1	2.1	2.0	2.1	2.0	1.9	1.9	2.0	-51%
Total Output	billion board feet per year	2.2	1.4	1.4	1.4	1.4	1.7	1.6	1.7	1.5	1.5	1.1	1.1	-65%
Total Input	million cubic metres per year	9.8	5.9	6.2	6.3	6.3	7.2	6.9	7.4	6.6	6.4	4.9	5.0	-64%
Average Capacity	million board feet per mill per year	114	110	115	124	124	117	118	117	111	112	112	118	6%
Capacity Utilization	output divided by capacity	71%	61%	61%	67%	67%	81%	80%	81%	75%	79%	58%	55%	-27%
Lumber Recovery Factor	'000 board feet per cubic metre	0.229	0.237	0.226	0.222	0.222	0.236	0.232	0.230	0.227	0.234	0.224	0.220	-1%

														% change
INTERIOR	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2000-2020
Number of Mills		70	52	56	54	52	53	52	51	51	50	52	45	-41%
Total Capacity	billion board feet per year	11.8	10.4	11.1	10.9	10.6	10.8	10.4	10.6	10.5	10.3	10.2	9.2	-14%
Total Output	billion board feet per year	11.7	9.5	10.5	10.8	11.2	10.9	11.2	11.5	11.4	10.8	9.1	8.5	-19%
Total Input	million cubic metres per year	42.4	34.1	37.0	38.6	39.9	39.3	39.4	40.7	39.4	37.9	31.7	29.3	-27%
Average Capacity	million board feet per mill per year	170	200	198	202	204	204	200	208	206	206	196	204	45%
Capacity Utilization	output divided by capacity	99%	91%	95%	99%	106%	101%	108%	108%	109%	105%	89%	92%	-6%
Lumber Recovery Factor	'000 board feet per cubic metre	0.276	0.279	0.284	0.280	0.281	0.277	0.284	0.283	0.289	0.285	0.287	0.290	10%

PROVINCE	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2000-2020
Number of Mills		97	73	76	71	69	71	69	69	69	67	69	62	-45%
Total Capacity	billion board feet per year	14.9	12.7	13.4	13.0	12.7	12.9	12.4	12.7	12.5	12.2	12.1	11.2	-24%
Total Output	billion board feet per year	14.0	10.9	11.9	12.2	12.6	12.6	12.8	13.2	12.9	12.3	10.2	9.6	-29%
Total Input	million cubic metres per year	52.1	40.0	43.2	44.9	46.2	46.5	46.3	48.1	46.0	44.3	36.6	34.3	-36%
Average Capacity	million board feet per mill per year	155	174	176	183	184	182	180	184	181	182	175	181	38%
Capacity Utilization	output divided by capacity	93%	86%	89%	94%	99%	98%	103%	104%	103%	101%	84%	86%	-7%
Lumber Recovery Factor	'000 board feet per cubic metre	0.268	0.273	0.275	0.272	0.273	0.271	0.276	0.274	0.280	0.278	0.279	0.280	11%

Source: Major Primary Timber Processing Facilities in British Columbia, Ministry database, various years.

Notes:

1. The above lists only include lumber mills with a minimum estimated annual capacity of 40 million board feet per year.

2. The third column of this table shows the average mill information between 2000 and 2009.

3. Output capacity is estimated based on two 8-hour shifts per day and 240 days per year.



Figure 5: Coast Lumber Mills (at least 40 Million Board Feet) – Capacity, Output, and Log Input

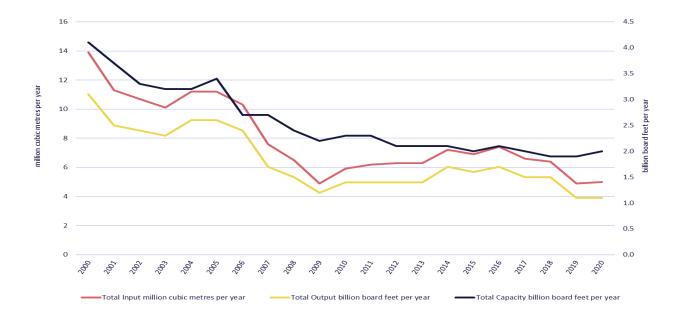


Figure 6: Interior Lumber Mills (at Least 40 Million Board Feet) –Capacity, Output, and Log Input





Figure 7: BC Lumber Mills (at Least 40 Million Board Feet) –Number of Mills and Average Capacity

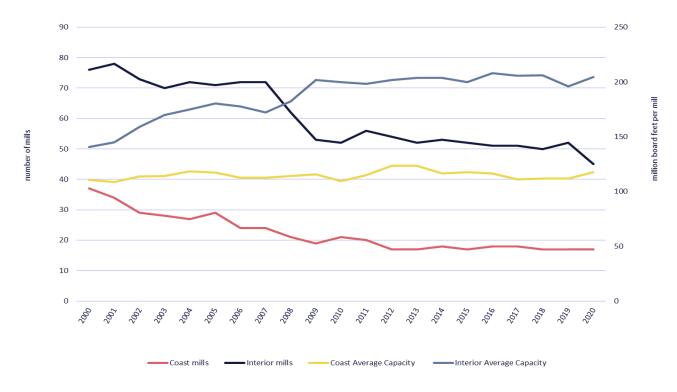


Figure 8: BC Lumber Mills (at Least 40 Million Board Feet) – Capacity Utilization





Figure 9: BC Lumber Mills (at Least 40 Million Board Feet) –Lumber Recovery Factor





## Veneer/OSB/Siding and Plywood Industry

#### Industry Overview

Veneer is produced as a thin sheet of wood of uniform thickness by peeling or slicing logs, requiring higher grade logs with no branches. Veneer can be used in making plywood or other engineered wood products such as laminated veneer lumber (LVL). Plywood is produced by gluing and compressing together three or more sheets of veneer, with the grain of alternate sheets usually laid crosswise.<sup>4</sup> Plywood is used primarily as a load-bearing component of platform-frame-constructed buildings such as single-family and multi-family housing. It is also used in wall sheathing, flooring, and roofing applications. Oriented Strand Board (OSB) is a popular engineered wood product made by compressing and bonding wood strands with adhesive. It's known for its strength, durability, and affordability, making it widely used in construction for roofs, walls, and floors, as well as in furniture and packaging industries.

The veneer/OSB/Siding and plywood industry makes a significant contribution to the BC economy. In 2020, this industry together with engineered wood product manufacturing generated \$550 million of GDP (\$2012). Total sales of veneer, plywood, and engineered wood products were \$2 billion in 2020, up 5% over 2019. According to Statistics Canada, BC exported 175 million square metres of veneer and 316,000 cubic metres of plywood<sup>5</sup> to global markets in 2020. Most of those products were made from Douglas fir.

Supply and demand for the veneer/OSB/Siding and plywood industry fluctuated in 2020. The supply reduced because several veneer/OSB/Siding and plywood producers temporarily closed their operations due to the pandemic in the first half of 2020. However, demand surged on the rise of construction and home renovations in North America. The imbalanced supply and demand pushed the price higher. The plywood price more than doubled from about \$320 per thousand square feet in early May to an all-time high of more than \$780 per thousand square feet in December 2020.

#### **Mill Summary Statistics**

The following section presents summary statistics from 2000 onward for veneer mills that used more than 25,000 cubic metres of logs per year:

#### Number of Mills, Output, Input, Capacity Utilization, and Product Recovery

In 2020, there were 14 veneer/OSB/siding mills operating in BC. Three of them were on the Coast and eleven in the Interior. Of these, seven veneer mills had on-site plywood operations. Figure 10 shows that the overall output and input volume increased from 2010 to 2016, followed by a decrease until 2020. The total production was 3.1 billion square feet on a 3/8" basis in 2020, up 3% from 2010. Given the growing demand over the past 10 years, most of the veneer mills operated on a three-shifts per day basis, resulting in more than 100% capacity utilization. Figure 13 shows that the average recovery factor declined steadily in 2013-16 and rebounded in 2017-2020.

<sup>&</sup>lt;sup>4</sup> Source: Statistics Canada: https://strategis.ic.gc.ca/app/scr/sbms/sbb/cis/definition.html?code=32121&lang=eng

<sup>&</sup>lt;sup>5</sup> Both veneer and plywood include hardwood and bamboo veneer and plywood products.



#### Table 5: BC Veneer/OSB/Siding Mill Summary Statistics for Mills with an Annual Log Consumption of at Least 25,000 Cubic Metres

														% change 2000-
	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Number of Mills		19	13	14	14	14	14	14	15	15	15	15	14	-26%
Total Capacity	(billion square feet 3/8" basis)	3.8	3.5	3.7	3.4	3.4	3.5	3.3	3.5	3.7	3.4	3.3	2.6	-14%
Total Output	(billion square feet 3/8" basis)	4.2	3.0	3.2	3.2	3.5	3.6	3.7	4.2	4.2	4.1	3.8	3.1	-18%
Total Log Input	(million cubic metres)	7.0	5.1	5.3	5.0	5.4	5.7	6.1	6.9	6.8	6.5	6.1	4.9	-21%
Average Capacity	(million square feet per mill)	203	268	264	244	246	248	236	234	244	230	223	184	16%
Average Log Input	(thousand cubic metres per mill)	371	390	378	359	387	406	434	457	452	436	403	348	7%
Capacity Utilization	(output divided by capacity)	112%	87%	88%	93%	102%	104%	113%	119%	116%	120%	115%	120%	-4%
Recovery Factor	(square feet per cubic metre log input)	605	597	614	632	649	636	616	606	624	631	634	637	4%

Source: Major Primary Timber Processing Facilities in British Columbia, Ministry database, various years. Notes:

1. Output capacity is estimated based on two 8-hour shifts per day and 240 days per year.

2. The third column of this table shows the average mill information between 2000 and 2009.

3. Small mills using an average of less than 25,000 cubic metres of logs per year are excluded in these statistics.



Figure 10: BC Veneer/OSB/Siding Mills –Capacity, Output, and Log Input



Figure 11: BC Veneer/OSB/Siding Mills –Number of Mills and Average Capacity





Figure 12: BC Veneer/OSB/Siding Mills – Capacity Utilization

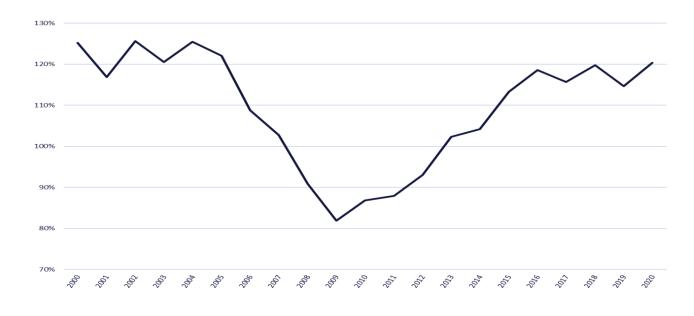
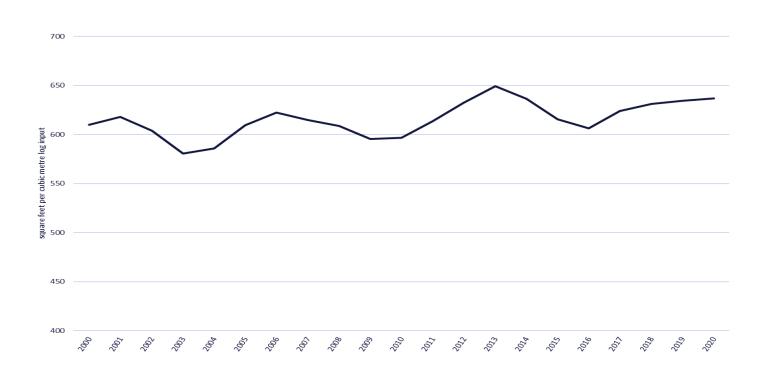


Figure 13: BC Veneer/OSB/Siding Mills – Recovery Factor





## Pulp and Paper Industry

#### Industry Overview

Pulp and paper mills produce various products, including newsprint, household tissues, dissolving pulp for rayon production, and green energy. In BC, the main pulp products are bleached softwood kraft pulp (BSK) and Chemi-thermo-mechanical pulp (CTMP). The main paper product in BC is newsprint.

The pulp and paper industry is a major economic contributor to BC' s economy. According to Statistics Canada, the pulp and paper sector generated sales of \$4 billion, accounting for 27% of total forest sector manufacturing sales in 2020.<sup>6</sup>

BC was also Canada's largest pulp exporter, accounting for 43% of the country's total pulp exports. In 2020, BC exported 4.7 million tonnes of pulp and paper products<sup>7</sup> valued at \$3.4 billion. The total value of pulp exports was \$2.8 billion in 2020, down 9% from 2019 and the total value of paper exports was \$0.6 billion in 2020, down 33% from 2019. China accounted for 67% of total exports by value, followed by the US (12%), and Japan (6%).

Unlike the spike in lumber prices, average pulp and paper prices fell in 2020 but remained at their normal historical average levels. The average price for Northern Bleached Softwood Kraft (NBSK) products was US \$845 per tonne in 2020, down 12% from 2019. The average price for newsprint was US\$559 per tonne in 2020, down 16% from last year. The lower prices were mainly attributed to high inventories, weak demand, and increased competition in the Chinese market. Other local factors that impacted pulp and paper supply included fibre supply constraints, the COVID-19 pandemic, and temporary mill closures.

#### **Mill Summary Statistics**

#### Number of Mills, Capacity, Output, and Capacity Utilization

#### Pulp Mills

- In 2020, there were 15 pulp mills operating in BC with five mills on the Coast, and 10 mills in the Interior.
- Paper Excellence was the largest pulp producer in BC, representing 37% of total pulp capacity. Canfor and Mercer<sup>8</sup> were the second-and third-largest pulp producers, accounting for 26% and 13% of total capacity.
- As shown in Figure 14, about 35% of the provincial capacity was on the Coast, 29% was in the Northern Interior, and 35% was in the Southern Interior.
- In 2020, Paper Excellence, Canfor, West Fraser, and Mercer all announced temporary mill curtailments in response to the pandemic and soft market conditions. Although the total capacity remained the same as last year, total pulp production decreased by 10%, from 4.8 million tonnes in 2019 to 4.4 million tonnes in 2020. The pulp mill capacity utilization rate dropped to a 10-year low of 85% in 2020, mainly driven by mill curtailments.
- Hog fuel consumption decreased by 23% from 5.4 million cubic metres in 2019 to 4.1 million cubic metres in 2020.9

<sup>&</sup>lt;sup>6</sup> Source: 2020 Economic State of British Columbia's Forest Sector

<sup>&</sup>lt;sup>7</sup> Paper export volume includes all paper and paper waste commodities in tonnes and kilograms and excludes all products where the quantity is reported as N/A.

<sup>&</sup>lt;sup>8</sup> Partial ownership was included in the calculation of pulp company's capacity share.

<sup>&</sup>lt;sup>9</sup> Historical hog fuel consumption information has incorporate retroactive data adjustments made by the pulp industry in November 2022.



#### Paper Mills

- In 2020, there were five paper mills operating in BC with four of them operating at pulp mill sites.
- In 2020, about 85% of provincial capacity was on the Coast and 15% was in the Northern Interior. The largest paper producer was the Paper Excellence (79.7%), followed by Canfor (14.5%) and Kruger (5.8%).
- In 2020, Paper Excellence and Canfor announced several temporary paper mill curtailments because of soft market conditions, COVID-19, labour disputes, and fibre supply constraints. Total paper mill capacity decreased by 9%, from 1.2 million tonnes in 2019 to 1.09 million tonnes in 2020. Total paper production fell to its lowest level in 10 years, at 590,000 tonnes in 2020.
- Capacity utilization fell to a 10-year low of 54% in 2020, indicating an operation of less than two shifts per day. This was mainly caused by mill curtailments, the impact of COVID-19, and malware attacks.



#### Table 6: BC Pulp and Paper Mill Summary Statistics

Pulp Mills	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% Change 2000-2020
Number of Pulp Mills		21	18	18	18	16	16	17	15	15	15	15	15	-35%
Total Capacity	(million tonnes)	7.25	5.96	6.02	5.87	5.66	5.65	5.85	5.21	5.17	5.26	5.15	5.15	-34%
Total Output	(million tonnes)	6.70	5.49	5.76	5.80	5.50	5.63	5.69	5.20	5.18	5.05	4.84	4.38	-42%
Total Fibre Input	(million bone dry units)	11.52	8.29	10.14	9.65	9.29	9.45	9.44	8.95	9.05	8.68	8.53	8.07	-40%
Average Capacity	(thousand tonnes)	296	331	334	326	354	353	344	348	345	350	343	343	1%
Average Fibre Input	(thousand bone dry units)	542	461	563	536	581	590	555	596	603	579	568	538	-8%
Capacity Utilization		93%	92%	96%	99%	97%	100%	97%	100%	100%	96%	94%	85%	-12%

Paper Mills	Units	2000-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% Change 2000-2020
Number of Paper Mills		10	6	6	6	5	6	6	5	5	5	5	5	-55%
Total Capacity	(million tonnes)	3.03	1.52	1.52	1.57	1.38	1.61	1.49	1.26	1.24	1.14	1.20	1.09	-67%
Total Output	(million tonnes)	2.82	1.49	1.48	1.49	1.30	1.48	1.29	1.15	1.15	1.14	0.99	0.59	-81%
Average Capacity	(thousand tonnes)	296	253	253	261	275	268	248	252	249	228	239	217	-27%
Capacity Utilization		93%	98%	98%	95%	94%	92%	87%	91%	92%	100%	83%	54%	-44%

Source: Major Primary Timber Processing Facilities in British Columbia, Ministry database, various years.

Notes:

1. Output capacity is estimated based on three 8-hour shifts per day and 345 days per year.

2. The third column of the above table shows the average mill information between 2000 and 2009.

3. This table has incorporated retroactive data adjustments made by the pulp industry in November 2022.



Figure 14: BC Pulp Mills – Output Capacity and Ownerships

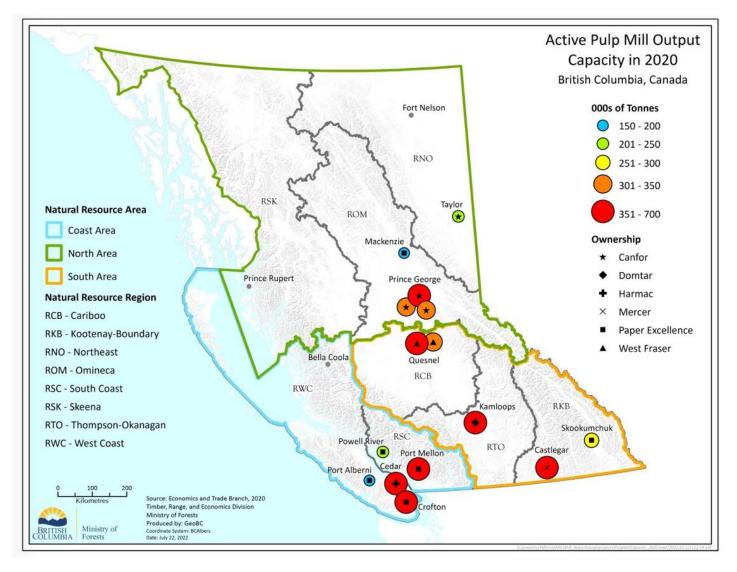




Figure 15: BC Pulp Mills –Capacity, Output, and Input

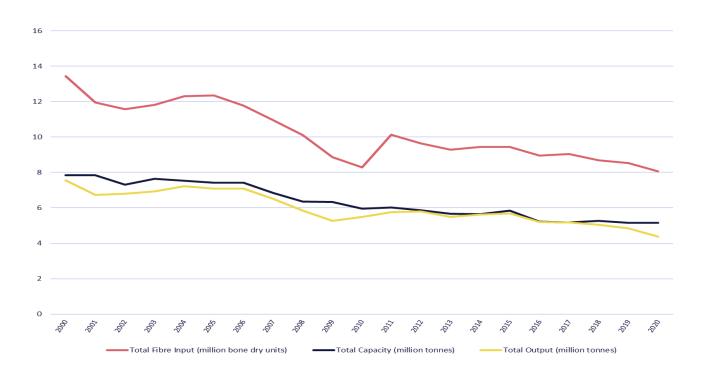


Figure 16: BC Pulp Mills – Capacity Utilization

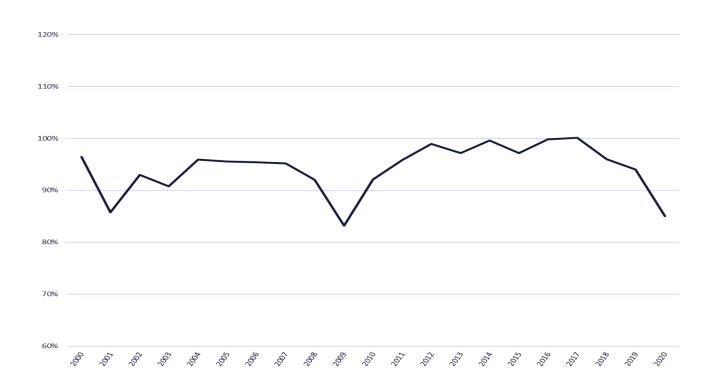




Figure 17: BC Paper Mills – Output Capacity and Ownerships

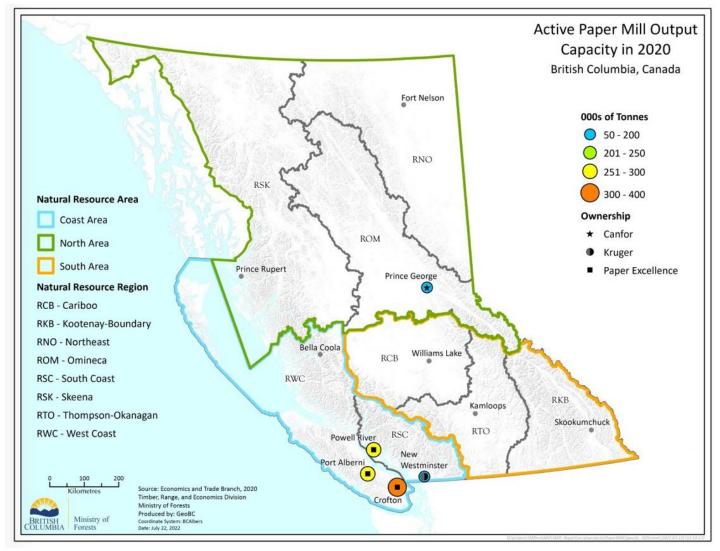




Figure 18: BC Paper Mills – Capacity and Output

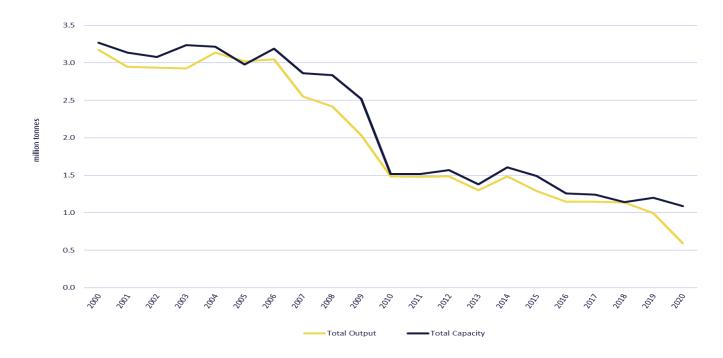
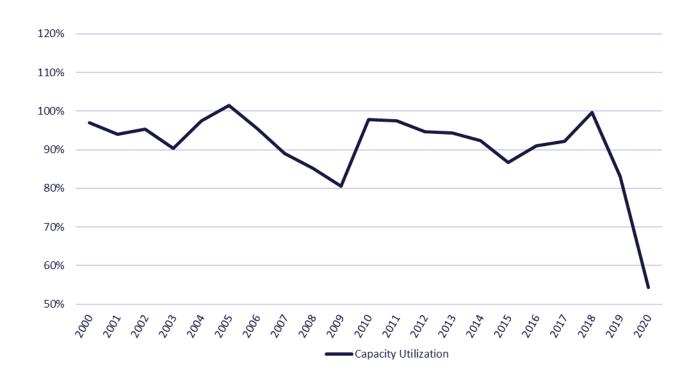


Figure 19: BC Paper Mills – Capacity Utilization





## **Pellet Industry**

#### Industry Overview

Wood pellets are a manufactured biomass fuel made from wood that is condensed into pellets under heat and pressure. Wood is dried to remove the excess water, and then compressed into pellets that are of high density and suitable for bulk transport and bulk firing in conventional solid fuel burners.

The world market for pellets is rapidly growing. It is primarily driven by European demand for renewable fuels to replace fossil fuels in both power boilers and space heating. This growth in the European market and elsewhere has created manufacturing opportunities for BC where there is necessary infrastructure and access to ocean terminals.

BC is currently one of the most important suppliers of wood pellets in the world. According to Statistics Canada, the value of pellet exports nearly doubled from 1.3 million tonnes estimated at \$201 million in 2015 to 2.4 million tonnes estimated at \$426 million in 2020. The UK (53%) was the top destination by weight, followed by Japan (26%) and other countries (21%).<sup>10</sup>

The pellet market was stable in 2020 over 2019. According to Statistics Canada, the average price of pellet products was \$0.18 per kilogram in 2020, similar to its price level in 2019.

#### **Mill Summary Statistics**

#### Number of Mills, Capacity, Average Capacity, Output, Input, and Utilization

- In 2020, there were 13 pellet mills in BC. The largest producer was Pinnacle Renewable Energy Group (Pinnacle) with seven pellet mills operating in the Interior, representing 50% of provincial capacity.<sup>11</sup> Other major producers include Pacific BioEnergy, Sinclar Group, and Canfor. Pinnacle and West Fraser's pellet plant in Smithers started operating in 2018 and reached full capacity in 2019, adding more than 100,000 tonnes of capacity to the province.
- Pellet mills in BC are larger than those in other Canadian jurisdictions. In 2020, the average annual capacity of BC pellet mills was 162,000 tonnes, more than triple that of eastern Canada (average capacity of 50,000 tonnes).
- While long-term demand is expected to remain strong, short-term disruptions can affect the market for pellet producers. With the decreased supply of milling residuals because of mill curtailments and other mill disruptions such as mill fires, total pellet capacity and output decreased by 9% and 5% respectively in 2020. The average capacity utilization increased by 4% to 94% in 2020 (Figure 21).
- The feedstock for pellet mills comes from milling residuals,<sup>12</sup> harvest residuals,<sup>13</sup> and logs that were damaged by insects or disease, cracked, twisted or otherwise unsuitable to make lumber. The pellet sector ensures BC forest resources are fully utilized by reducing waste at lumber mills and reducing emissions that would occur if fibre remained in the bush and was burnt in a slash pile. As shown in Table 7, total pellet input increased slightly from 1.93 million BDUs in 2019 to 1.96 million BDUs in 2020.

<sup>&</sup>lt;sup>10</sup> Source: 2019 Economic State of the BC Forest Sector

<sup>&</sup>lt;sup>11</sup> Partial ownership was included in the calculation of the pellet company's capacity share.

<sup>&</sup>lt;sup>12</sup> Milling residuals include sawdust and shavings, residual chips, and other fibre such as mill yard waste.

<sup>&</sup>lt;sup>13</sup> Harvest residuals include non-sawlog fibre removed from cut blocks following harvesting activities and transported directly to mills to make wood products.



#### Table 7: BC Pellet Mill Summary Statistics

	Units	2005-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2005-2020
Number of Mills		8	11	11	11	11	12	14	14	13	13	13	13	160%
Total Capacity	(million tonnes)	0.84	1.31	1.99	1.67	1.69	1.77	2.05	2.22	2.13	2.17	2.31	2.11	486%
Total Output	(million tonnes)	0.54	1.11	1.36	1.64	1.68	1.65	1.80	2.06	2.08	2.12	2.09	1.98	450%
Total Input	(million bone dry units)	0.56	1.13	1.28	1.37	1.58	1.62	1.73	1.92	1.95	1.87	1.93	1.96	378%
Average Capacity	(000s tonnes)	105	119	181	152	154	148	146	159	164	167	178	162	125%
Capacity Utilization	(output divided by capacity)	69%	85%	68%	98%	99%	93%	88%	93%	98%	98%	90%	94%	-6%
Recovery Factor	(Tonnes of output per tonne of bone dry input)	0.95	0.98	1.06	1.20	1.06	1.02	1.04	1.07	1.07	1.13	1.08	1.01	15%

Source: Major Primary Timber Processing Facilities in British Columbia, Ministry database, various years.

Notes:

1. Output capacity is estimated based on three 8-hour shifts per day and 345 days per year.

2. The third column of the table shows the average mill information between 2005 and 2009. 2005 is the first-year information was collected from pellet mills.

3. For some pellet mills, their reported output may be higher than their reported input due to inventory.



Figure 20: BC Pellet Mills – Capacity, Output, and Fibre Input

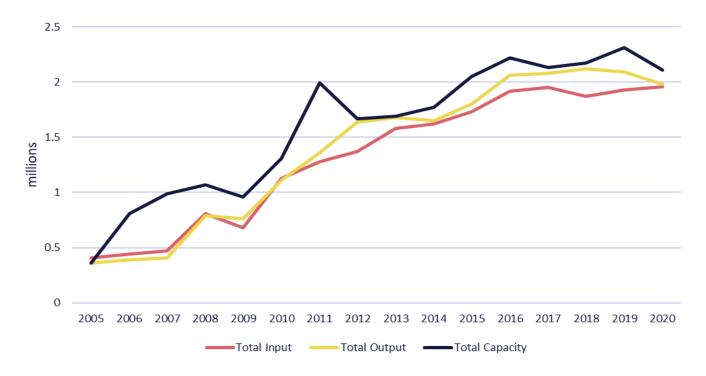
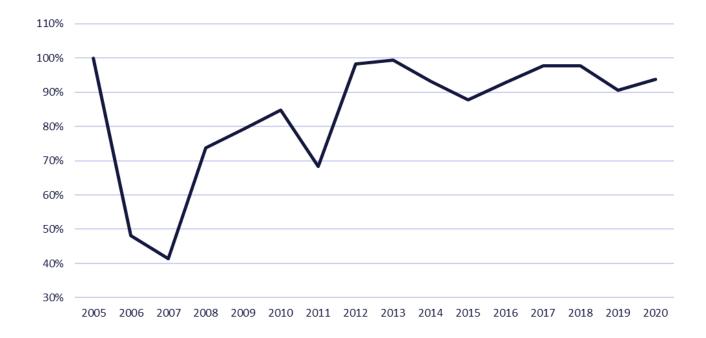


Figure 21:BC Pellet Mills – Capacity Utilization





## Shake and Shingle Industry

#### Industry Overview

The wood shake and shingle industry includes mills that produce premium residential roofing and siding products. In BC, Western Red Cedar is the material of choice because it offers several unique features, including ease of installation, low maintenance, durability, and earthy colours. While both shake and shingles can be used for roofs and walls, shakes tend to be used more for roofs because they are usually thicker than shingles. The main roofing product types include hand-split and re-sawn shakes as well as taper-sawn shakes. Various sidewall shingle products are also produced in BC.<sup>14</sup> The usual commercial unit of measurement for shake and shingles is a "square," the quantity required to cover 100 square feet of surface area.

Although the shake and shingle industry is relatively small, it generates significant sales revenue for the BC economy. According to Statistics Canada, total manufacturing sales for shake and shingle products were \$626 million in 2020. The province exported \$186-million shake and shingle products to global markets. The US was the largest market (90%), with the next largest market being the UK (3%). Within the US, Massachusetts was the largest market, followed by Connecticut, New York, and Oregon.<sup>15</sup>

Strong residential construction and increased repair and remodelling activities also led to higher demand and higher prices for shake and shingle products in 2020. According to Statistics Canada, the shake price rose from \$30.25 per square metre in 2019 to \$32.4 per square metre in 2020. The shingle price increased from \$20.96 per square metre in 2019 to \$23.06 per square metre in 2020.

#### **Mill Summary Statistics**

#### Number of Mills, Capacity, Input, Output, and Utilization

- As shown in Figure 22, the number of shake and shingle mills decreased from 51 in 2000 to 34 in 2020.
- While shake and shingle mills were in all parts of the province where Western Red Cedar was found, most production was located on the Coast. In 2020, 30 shake and shingle producers operated on the Coast, accounting for 98% of provincial capacity. Four producers operated in the Interior, accounting for 2% of total capacity. In 2020, the top three producers were Mission Shake and Shingle, Waldun Forest Products Ltd., and Best Quality Cedar Products Ltd., which collectively accounted for 35% of total capacity. 92% of shake and shingle mills in BC were small private companies with less than 50 employees.
- Shake and shingle mills relied on large-diameter logs to make products. Some of them used old-growth/matured logs, while others used second-growth logs as their inputs. Given the declining supply of cedar logs in the province, most shake and shingle mills operated less than one shift per day, resulting in a capacity utilization rate of less than 50% in the last four years.

<sup>&</sup>lt;sup>14</sup> Source: The BC Cedar Shake and Shingle Bureau

<sup>&</sup>lt;sup>15</sup> Source: <u>https://www.ic.gc.ca/app/scr/tdst/tdo/crtr.html?&productType=HS6&lang=eng</u>



Figure 22: Number of Shake and Shingle Mills

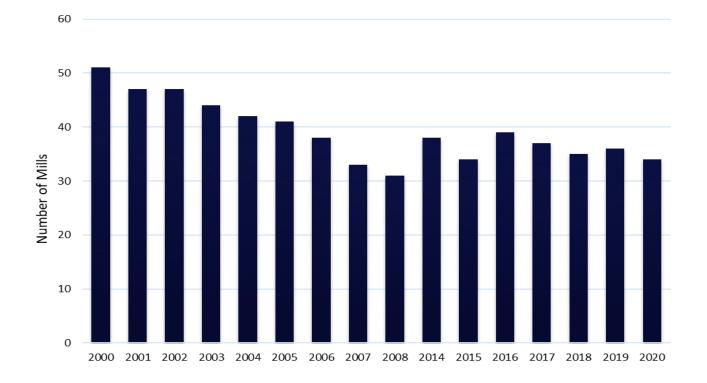


Figure 23: BC Shake and Shingle Mills –Capacity, Output, and Log Input

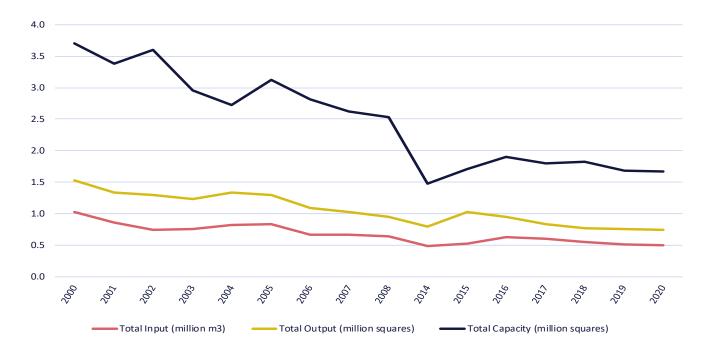
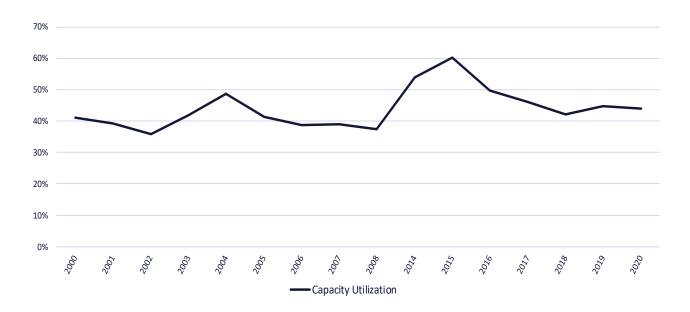




Figure 24: BC Shake and Shingle Mills –Capacity Utilization





# Appendix









#### Lumber Mills

Lumber mills are presented in two separate tables, one for those with an estimated annual capacity of at least 40 million board feet of lumber, and one for those with lower annual capacity.

The annual capacity reported in the following tables is estimated based on the same standard operating assumptions for each mill (i.e., number and length of shifts and days per year as described below). The actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Therefore, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

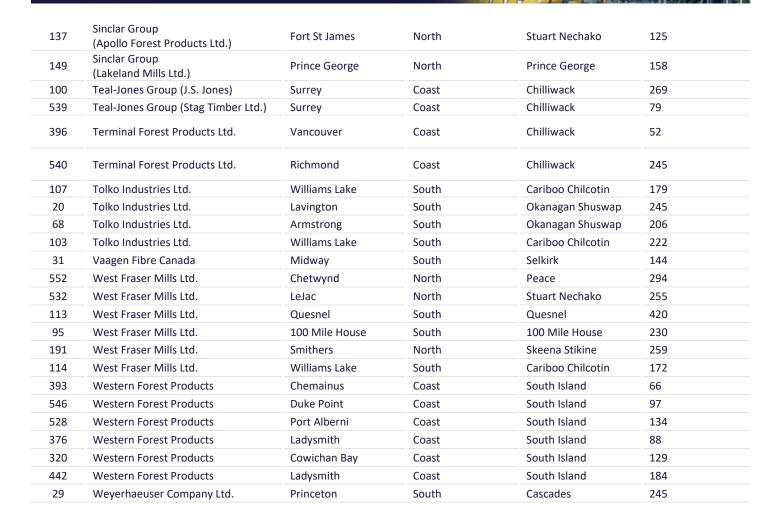
- 1. The estimated annual capacity is based on a standardized operation of 240 days per year, two 8-hour shifts per day. Actual mill operation may vary from this schedule.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 3. The List of Lumber Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-indus



Table 8: Lumber Mills with an Annual Capacity of at Least 40 Million Board Feet, 2020

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annua Capacity (Million board feet)
498	Aspen Planers Ltd.	Merritt	South	Cascades	192
213	Babine Forest Products Limited (Hampton Lumber)	Burns Lake	North	Nadina	214
252	C & C Wood Products Ltd.	Quesnel	South	Quesnel	43
160	Canadian Forest Products Ltd.	Bear Lake	North	Prince George	336
193	Canadian Forest Products Ltd.	Houston	North	Nadina	469
166	Canadian Forest Products Ltd.	Prince George	North	Prince George	320
82	Canadian Forest Products Ltd.	Elko	South	Rocky Mountain	216
90	Canadian Forest Products Ltd.	Radium Hot Sprgs	South	Rocky Mountain	192
135	Canadian Forest Products Ltd.	Isle Pierre	North	Prince George	215
122	Canadian Forest Products Ltd.	Fort St John	North	Peace	284
93	Canadian Forest Products Ltd.	Wynndel	South	Selkirk	67
127	Canadian Forest Products Ltd.	Chetwynd	North	Peace	219
140	Canadian Forest Products Ltd.	Engen	North	Stuart Nechako	450
150	Carrier Lumber Ltd.	Prince George	North	Prince George	313
129	Conifex Timber Inc.	Mackenzie	North	Mackenzie	193
326	Delta Cedar Sawmill LP	Delta	Coast	Chilliwack	52
158	Dunkley Lumber Ltd.	Hixon	North	Prince George	542
66	Gilbert Smith Forest Product Ltd.	Barriere	South	Thompson Rivers	71
537	Goldwood Industries Ltd.	Richmond	Coast	Chilliwack	58
14	Gorman Brothers (Gorman Brothers Lumber Ltd.)	Westbank	South	Okanagan Shuswap	127
45	Gorman Brothers (Downie Timber Ltd.)	Revelstoke	South	Selkirk	117
1005	Halo Sawmill Manufacturing LP	Pitt Meadows	Coast	Chilliwack	58
181	Hampton Lumber (Decker Lake Forest Products)	Burns Lake	North	Nadina	55
30	Interfor Corporation	Grand Forks	South	Selkirk	163
283	Interfor Corporation	Delta	Coast	Chilliwack	117
70	Interfor Corporation	Adams Lake	South	Thompson Rivers	343
62	Interfor Corporation	Castlegar	South	Selkirk	203
88	J. H. Huscroft Ltd.	Erickson	South	Selkirk	46
50	Kalesnikoff Lumber Co. Ltd.	Castlegar	South	Selkirk	85
184	Kitwanga Forest Products	Kitwanga	North	Skeena Stikine	43
1000	Ledcor Forest Products Partnership	Chilliwack	Coast	Chilliwack	71
144	Nechako Lumber Co Ltd.	Vanderhoof	North	Stuart Nechako	240
618	North Enderby Timber Ltd.	Enderby	South	Okanagan Shuswap	61
626	Porcupine Wood Products Ltd.	Salmo	South	Selkirk	53
361	Riverside Forest Products	Surrey	Coast	Chilliwack	69
183	ROC Holdings Ltd.	Terrace	North	Coast Mountain	116
454	S & R Sawmills Ltd.	Surrey	Coast	Chilliwack	223
750	Sigurdson Forest Products Ltd.	Williams Lake	South	Cariboo Chilcotin	72







### Table 9: Lumber Mills with an Annual Capacity of Less than 40 Million Board Feet, 2020

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (Million board feet)
9	A J Forest Products Ltd.	Brackendale	Coast	Sea to Sky	29.3
8	Andersen Pacific Forest Products Ltd	Ruskin	Coast	Chilliwack	28.3
643	Bear Lumber Ltd.	Cranbrook	South	Rocky Mountain	3.8
117	Continental Pole Ltd.	Pemberton	Coast	Sea to Sky	1.9
377	Coulson Manufacturing Ltd (2017) (San Group)	Port Alberni	Coast	South Island	31.2
1051	Cowichan Lake Timber	Lake Cowichan	Coast	South Island	2.9
989	Deacoff Bros. Enterprises Ltd.	Kelowna	South	Okanagan Shuswap	0.8
1048	E Schuk contracting Ltd.	Tatla Lake	South	Cariboo Chilcotin	0.1
1056	Eaglecrest Enterprises Ltd.	Port Clements	Coast	Haida Gwaii	1.4
301	Errington Cedar Products Ltd.	Errington	Coast	South Island	13.9
714	Franklin Forest Products Ltd.	Port Alberni	Coast	South Island	19.2
1004	Fu So Enterprises Ltd.	Surrey	Coast	Chilliwack	2.4
86	Galloway Lumber Co. Ltd.	Galloway	South	Rocky Mountain	26.4
32	Gibbs Custom Sawmill	McBride	North	Prince George	1.2
957	Gold Island Forest Products Ltd.	Slocan	South	Selkirk	16.8
567	Green D Forest Products Ltd.	Merville	Coast	Campbell River	0.5
1016	Greenslide Cattle Co Ltd	Revelstoke	South	Selkirk	1.0
5	Haida Gwaii Forest Products Joint Venture	Port Clements	Coast	Haida Gwaii	4.8
1006	Harrop Procter Forest Products	Nelson	South	Selkirk	1.9
990	Hyde Sawmill Ltd.	Sicamous	South	Okanagan Shuswap	20.3
1058	JCI Touchwood Sawmills	Terrace	North	Coast Mountain	3.6
512	Jemico Enterprises Ltd.	Chemainus	Coast	South Island	11.0
47	Joe Kozek Sawmills Ltd.	Revelstoke	South	Selkirk	9.6
1085	L&Y	Duncan	Coast	South Island	0.6
1007	Lake Drive Lumber	Terrace	North	Coast Mountain	0.7
597	Lakeside Timber (2007) Ltd.	Enderby	South	Okanagan Shuswap	14.4
702	Linde Bros Lumber Ltd.	, Williams Lake	South	Cariboo Chilcotin	1.7
399	Lois Lumber Ltd	Powell River	Coast	Sunshine Coast	4.8
712	Long Hoh Enterprises Canada Ltd	Qualicum Beach	Coast	South Island	29.8
1052	Ludwig Lumber Ltd.	Black Creek	Coast	Campbell River	1.2
197	McDonald Ranch & Lumber Ltd.	Grasmere	South	Rocky Mountain	6.7
974	Murray Kane Site 6LW	Clinton	South	100 Mile House	1.0
1076	North Pacific Timber Corporation	Queen Charlotte	Coast	Haida Gwaii	1.2
1010	Pacific Timber	Burns Lake	North	Nadina	19.2
917	Pacific Timber -Sheraton Sawmill	Burns Lake	North	Nadina	0.7
711	Port Hardy Merchandising Ltd.	Port Hardy	Coast	North Island - Central Coast	4.8
582	Quadra Island Forest Products Ltd.	Quadra Island	Coast	Campbell River	2.9
905	Rainforest Sawmill	Black Creek	Coast	Campbell River	0.7
199	RONA North Star Hardware and Building Supplies Ltd.	Athalmer	South	Rocky Mountain	2.4
271	Rouck Brothers Sawmill Ltd.	Lumby	South	Okanagan Shuswap	3.8



480	Schapol Logging Ltd.	Enderby	South	Okanagan Shuswap	19.2
23	Shannon Lumber Ltd.	Chilliwack	Coast	Chilliwack	8.6
654	SpikeTop Cedar Ltd.	Port Hardy	Coast	North Island - Central Coast	0.5
24	Suncoast Industries Inc	Sechelt	Coast	Sunshine Coast	19.2
1023	Take to Heart Specialty Wood Products	Revelstoke	South	Selkirk	0.7
1054	Tanu Wood Products Enterprises	Skidegate	Coast	Haida Gwaii	1.4
96	Thomson Bros. Lumber Co. Ltd.	Courtenay	Coast	Campbell River	2.4
1092	Vertical West Timber Ltd.	Salmon Arm	South	Okanagan Shuswap	0.3
979	Woodco Industries Ltd.	Barriere	South	Thompson Rivers	21.6



### Pulp and Paper Mills

Pulp and paper mills are listed in this section. For integrated mills, pulp capacity includes pulp that is used internally to produce paper, and pulp that is shipped from the mill site as market pulp.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Therefore, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. Estimated annual capacity is based on a standardized operation of 345 operating days per year, 24 hours per day. Actual operations may vary from this schedule.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 3. The List of Pulp and Paper Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/fore



### Table 10: Pulp and Paper Mills, 2020

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity (Thousand tonnes)
960	Canadian Forest Products Ltd. (Intercontinental Pulp)	Prince George	PLP	North	Prince George	308
503	Canadian Forest Products Ltd. (Northwood Pulp Mill)	Prince George	PLP	North	Prince George	508
500	Canadian Forest Products Ltd. (Prince George Pulp and Paper)	Prince George	PLP	North	Prince George	301
335	Canadian Forest Products Ltd. (Taylor Pulp Mill)	Taylor	PLP	North	Peace	218
2	Domtar	Kamloops	PLP	South	Thompson Rivers	383
488	Harmac Pacific (Nanaimo Forest Products)	Cedar	PLP	Coast	South Island	356
501	Mercer (Mercer Celgar Limited Partnership)	Castlegar	PLP	South	Selkirk	477
483	Paper Excellence Group	Crofton	PLP	Coast	South Island	690
505	Paper Excellence Group	Mackenzie	PLP	North	Mackenzie	181
486	Paper Excellence Group	Powell River	PLP	Coast	Sunshine Coast	217
487	Paper Excellence Group	Port Alberni	PLP	Coast	South Island	173
484	Paper Excellence Group	Port Mellon	PLP	Coast	Sunshine Coast	372
1	Paper Excellence Group	Skookumchuk	PLP	South	Rocky Mountain	255
497	West Fraser and Mercer (Cariboo Pulp & Paper)	Quesnel	PLP	South	Quesnel	349
553	West Fraser Mills Ltd. (Quesnel River Pulp Company)	Quesnel	PLP	South	Quesnel	356
500	Canadian Forest Products Ltd. (Prince George Pulp and Paper)	Prince George	PPR	North	Prince George	158
491	Kruger Products LP	New Westminster	PPR	Coast	Chilliwack	63
483	Paper Excellence Group	Crofton	PPR	Coast	South Island	314
486	Paper Excellence Group	Powell River	PPR	Coast	Sunshine Coast	294
487	Paper Excellence Group	Port Alberni	PPR	Coast	South Island	258



### Veneer, Plywood, OSB, and Other Panel Mills

#### (Listed Alphabetically by Product)

Mills producing veneer, plywood, OSB and other types of panels are listed in this section. For mills that produce both market veneer and plywood, veneer capacity includes market veneer and the veneer that is used within the mill to manufacture plywood. Panel mills that use wood residuals to produce panels or that do not have log-processing capability are also listed in this report.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Therefore, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. The estimated annual capacity of veneer mills and plywood mills is based on a standardized operation of 240 days per year, two 8-hour shifts per day. For OSB and other panel mills, the estimated annual capacity is based on a standardized operation of 345 days per year, three 8-hour shifts per day. Actual operations may vary from these schedules.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 3. The List of Veneer, Plywood, OSB and Panel Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/fore



#### Table 11: Veneer, Plywood, OSB, and Panel Mills, 2020

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity (million sq. ft, 3/8" basis)
650	Louisiana Pacific Canada Ltd.	Dawson Creek	OSB	North	Peace	311
650	Louisiana Pacific Canada Ltd.	Dawson Creek	SID	North	Peace	269
109	Aspen Planers Ltd.	Savona	PLY	South	Thompson Rivers	121
12	Gorman Brothers (Canoe Forest Products Ltd.)	Canoe	PLY	South	Okanagan Shuswap	137
84	Louisiana Pacific Canada Ltd.	Golden	PLY	South	Selkirk	116
478	Richmond Plywood Corporation Limited	Richmond	PLY	Coast	Chilliwack	159
1042	Thompson River Veneer Products Ltd.	Kamloops	PLY	South	Thompson Rivers	108
394	Tolko Industries Ltd.	Heffley Creek	PLY	South	Thompson Rivers	187
68	Tolko Industries Ltd.	Armstrong	PLY	South	Okanagan Shuswap	267
112	West Fraser Mills Ltd.	Quesnel	PLY	South	Quesnel	229
105	West Fraser Mills Ltd.	Williams Lake	PLY	South	Cariboo Chilcotin	219
113	West Fraser Mills Ltd.	Quesnel	PNL	South	Quesnel	155
115	Aspen Planers Ltd.	Lillooet	VNR	South	Cascades	134
51	Atco Wood Products	Fruitvale	VNR	South	Selkirk	121
34	BC Veneer Products Ltd	Surrey	VNR	Coast	Chilliwack	2.1
508	CIPA Lumber Co. Ltd.	Annacis Island	VNR	Coast	Chilliwack	216.0
244	Coastland Wood Industries Ltd.	Nanaimo	VNR	Coast	South Island	213
1044	Harwood Lumber Ltd.	Maple Ridge	VNR	Coast	Chilliwack	1
12	Gorman Brothers (Canoe Forest Products Ltd.)	Canoe	VNR	South	Okanagan Shuswap	157
478	Richmond Plywood Corporation Limited	Richmond	VNR	Coast	Chilliwack	226
84	Louisiana Pacific Canada Ltd.	Golden	VNR	South	Selkirk	138
394	Tolko Industries Ltd.	Heffley Creek	VNR	South	Thompson Rivers	182
35	Tolko Industries Ltd.	Lumby	VNR	South	Okanagan Shuswap	187
68	Tolko Industries Ltd.	Armstrong	VNR	South	Okanagan Shuswap	138
105	West Fraser Mills Ltd.	Williams Lake	VNR	South	Cariboo Chilcotin	137
112	West Fraser Mills Ltd.	Quesnel	VNR	South	Quesnel	158

#### Notes:

1. Small mills using less than 25,000 cubic metres of logs per year were also included in the above list.

2. The Louisiana Pacific Canada Ltd. OSB mill (#650) changed its production to make both OSB and siding products in 2020.



#### **Chip Mills**

Only mills that produce wood chips as a primary product are listed in this section.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Therefore, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. The estimated annual capacity is based on a standardized operation of 240 days per year, two 8-hour shifts per day. Actual operations may vary from this schedule.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- The List of Chip Mills is available as an Excel spreadsheet online at <u>https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey.</u>



### Table 12: Chip Mills, 2020

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (Thousand BDUs)
10	BC Custom Timber Products Ltd.	Vanderhoof	North	Stuart Nechako	232
1002	BC Ecochips Ltd	Okanagan Falls	South	Okanagan Shuswap	96
252	C & C Wood Products Ltd.	Quesnel	South	Quesnel	4
446	Campbell River Fibre Ltd.	Campbell River	Coast	Campbell River	90
1	Canadian Forest Products Ltd.	Skookumchuk	South	Rocky Mountain	127
166	Canadian Forest Products Ltd.	Prince George	North	Prince George	552
924	Chips Ahoy Fibre Supply Ltd.	Mission	Coast	Chilliwack	150
345	DCT Chambers Trucking Ltd.	Chemainus	Coast	South Island	456
356	East Fraser Fibre Co Ltd.	Mackenzie	North	Mackenzie	198
1013	Karlite Manufacturing Ltd.	Cowichan Bay	Coast	South Island	182
1000	Ledcor Forest Products Partnership	Chilliwack	Coast	Chilliwack	109
1050	North Island Chipping Ltd.	Port McNeill	Coast	North Island - Central Coast	75
937	Pacific Fibre	Port Mellon	Coast	Sunshine Coast	120
952	River City Fibre Ltd	Kamloops	South	Thompson Rivers	553
183	ROC Holdings Ltd.	Terrace	North	Coast Mountain	91
18	Terminal Forest Products Ltd.	Langdale	Coast	Sunshine Coast	34
394	Tolko Industries Ltd.	Heffley Creek	South	Thompson Rivers	96
68	Tolko Industries Ltd.	Armstrong	South	Okanagan Shuswap	38
1001	Valiant Log Sort Ltd.	Port Coquitlam	Coast	Chilliwack	96
409	West Coast Chip Mill	Vancouver	Coast	Chilliwack	262
113	West Fraser Mills Ltd.	Quesnel	South	Quesnel	181



#### Pellet Mills

Mills producing wood pellets for bioenergy are listed in this section.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Therefore, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. The estimated annual capacity of pellet mills is based on a standardized operation of 345 days per year, three 8-hour shifts per day. Actual operations may vary from these schedules.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 3. The List of Pellet Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry/economics/fibre-mill-information/major-timber-processing-facilities-survey</a>.



### Table 13: Pellet Mills, 2020

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (Thousand tonnes)
127	Canadian Forest Products Ltd. and Pacific BioEnergy (Chetwynd Pellet)	Chetwynd	North	Peace	120
122	Canadian Forest Products Ltd. and Pacific BioEnergy (Fort St. John Pellet)	Fort St John	North	Peace	83
930	Pacific BioEnergy	Prince George	North	Prince George	285
1049	Pinnacle Renewable Energy and Tolko (Lavington Pellet Limited Partnership)	Lavington	South	Okanagan Shuswap	271
976	Pinnacle Renewable Energy	Strathnaver	North	Prince George	200
947	Pinnacle Renewable Energy and Canfor (Houston Pellet Limited Partnership)	Houston	North	Nadina	203
929	Pinnacle Renewable Energy	Armstrong	South	Okanagan Shuswap	58
980	Pinnacle Renewable Energy	Burns Lake	North	Nadina	271
948	Pinnacle Renewable Energy	Williams Lake	South	Cariboo Chilcotin	144
1074	Pinnacle Renewable Energy and West Fraser (Smithers Pellet Limited Partnership)	Smithers	North	Skeena Stikine	101
933	Princeton Standard Pellet Corporation	Princeton	South	Cascades	95
932	Sinclar Group (Premium Pellet Ltd.)	Vanderhoof	North	Stuart Nechako	248
995	Vanderhoof Specialty Wood Products	Vanderhoof	North	Stuart Nechako	33



#### Pole, Utility Pole, and Post Mills

Mills producing poles, utility poles, and posts are listed in this section.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than the estimated capacity if a mill runs on a different operating schedule than assumed here. Thus, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. The estimated annual capacity is based on a standardized operation of 240 days per year, one 8-hour shift per day, although actual mill operations may vary from this schedule.
- 2. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 3. The List of Pole and Post Mills is available as an Excel spreadsheet online at <u>https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey.</u>



### Table 14: Post, Utility Pole, and Pole Mills, 2020

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity (thousand pieces)
498	Aspen Planers Ltd.	Merritt	PLE	South	Cascades	N/A
250	Nicola Post and Rail Ltd.	Merritt	PLE	South	Cascades	120
677	Pacific Inland Pole & Piling Co. Ltd.	Nakusp	PLE	South	Selkirk	N/A
498	Aspen Planers Ltd.	Merritt	PST	South	Cascades	480
390	Box Lake Lumber Products Ltd	Nakusp	PST	South	Selkirk	480
997	Cedar 3 Products	McBride	PST	North	Prince George	480
250	Nicola Post and Rail Ltd.	Merritt	PST	South	Cascades	720
739	Panhandle Forest Products	Lumberton	PST	South	Rocky Mountain	360
232	Princeton Wood Preservers Ltd	Princeton	PST	South	Cascades	960
188	Bell Lumber & Pole ULC Canada	Rossland	UTI	South	Selkirk	6
659	Brisco Wood Preservers Ltd.	Brisco	UTI	South	Rocky Mountain	24
556	Chinook Forest Products Ltd.	Courtenay	UTI	Coast	Campbell River	0.02
117	Continental Pole Ltd.	Pemberton	UTI	Coast	Sea to Sky	13
40	Gorman Bros Lumber Ltd. (Lumby Pole)	Lumby	UTI	South	Okanagan Shuswap	24
181	Hampton Lumber	Burns Lake	UTI	North	Nadina	9
999	Otter Point Timber Ltd.	Ladysmith	UTI	Coast	South Island	17
48	Stella Jones Inc.	Revelstoke	UTI	South	Selkirk	48
637	Stella-Jones Inc.	Prince George	UTI	North	Prince George	24
648	Stella-Jones Inc.	Galloway	UTI	South	Rocky Mountain	29
222	Stella-Jones Inc.	Haney	UTI	Coast	Chilliwack	36



#### Shake and Shingle Mills

Mills producing shake and shingles are listed in this section.

The annual capacity reported in these tables is estimated based on the same standard operating assumptions for each mill (number and length of shifts and days per year as described below). Actual mill production can be higher or lower than estimated capacity if a mill runs on a different operating schedule than assumed here. Thus, while capacity provides guidance on mill output, it is not a measure of the actual production level of the mill. For more information, please contact Mill.Survey@gov.bc.ca.

- 1. The measurement unit is thousand roofing squares (thousand squares). A roofing square is approximately 100 square feet.
- 2. Estimated annual capacity is based on a standardized operation of 240 days per year, two 8-hour shifts per day. Actual mill operations may vary from this schedule.
- 3. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 4. The List of Shake and Shingle Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/f



### Table 15: Shake and Shingle Mills, 2020

Mill Number	Company	Location of Mill	Administrative Areas	Natural Resource District	Estimated Annual Capacity (Thousand squares)
1036	489596 BC Ltd. Riverside Shingle Products	Errington	Coast	South Island	14.4
1026	A.K. Cedar Products Ltd.	Abbotsford	Coast	Chilliwack	3.8
688	Best Quality Cedar Products Ltd	Maple Ridge	Coast	Chilliwack	187.2
706	Bill Little Contracting Ltd	Campbell River	Coast	Campbell River	2.9
449	Campbell River Shake and Shingle Co Ltd	Campbell River	Coast	Campbell River	22.8
1028	Cape Scott Cedar Products Ltd.	Holberg	Coast	North Island - Central Coast	22.1
1029	Cedar Valley Holdings Ltd	Vancouver	Coast	Chilliwack	9.6
1080	Cedar Valley Specialty	Valemount	North	Prince George	4.8
385	Clearbrook Shake & Shingle Ltd.	Abbotsford	Coast	Chilliwack	2.9
1033	Coleman Road Shingle Ltd (Pacific Cedar)	Port Alberni	Coast	South Island	7.7
315	Comox Valley Shakes (2019) Ltd.	Campbell River	Coast	Campbell River	43.2
638	Confederate Shake & Shingle Ltd.	Youbou	Coast	South Island	19.2
69	Copper Mountain Cedar Products	Terrace	North	Coast Mountain	2.9
1062	G & R Cedar (2009) Ltd.	Chilliwack	Coast	Chilliwack	36.0
587	G & R Cedar Ltd.	Matsqui	Coast	Chilliwack	60.0
399	Goat Lake Group of Companies (Goat Lake Forest Products)	Powell River	Coast	Sunshine Coast	38.4
1030	Golden Ears Shingle Ltd.	Mission	Coast	Chilliwack	9.6
72	Imperial Shake Co Ltd	Maple Ridge	Coast	Chilliwack	144.0
1071	Island Cedar Products	Matsqui	Coast	Chilliwack	0.0
321	J & D Shake and Cedar Mill Ltd.	Duncan	Coast	South Island	72.0
583	Madewell Cedar Inc.	Mission	Coast	Chilliwack	103.2
1039	Maibec Stave Lake Mills	Dewdney	Coast	Chilliwack	78.2
612	Mission Shake and Shingle (Silver Creek Premium Products)	Mission	Coast	Chilliwack	225.6
1034	Pacific Chalet Ltd.	Powell River	Coast	Sunshine Coast	1.4
1009	Pendragon-Goldwood Industries Ltd	Gold River	Coast	Campbell River	38.4
460	Port McNeill Shake & Shingles (2007) Ltd.	Port McNeill	Coast	North Island - Central Coast	21.6
266	Premium Cedar Products Ltd.	Ruskin	Coast	Chilliwack	93.1
455	S & W Forest Products	Ruskin	Coast	Chilliwack	115.2
591	Serpentine Cedar Ltd.	Fort Langley	Coast	Chilliwack	11.5
1061	Star Lumber Canada Ltd.	Mission	Coast	Chilliwack	64.3
902	Taylor Contracting Ltd.	Zeballos	Coast	Campbell River	11.5
585	Teal Cedar Products	Revelstoke	South	Selkirk	7.2
691	W. Boyes Shake and Shingle Ltd.	150 Mile House	South	Cariboo Chilcotin	14.4
464	Waldun Forest Products Ltd.	Ruskin	Coast	Chilliwack	187.2



## Log Home Mills

Mills producing log homes are listed in this section. No capacity information is collected through the Mill List survey.

- 1. Administrative areas and natural resource districts were applied (see Figure 25 for details).
- 2. The List of Log Home Mills is available as an Excel spreadsheet online at <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics/fibre-mill-information/major-timber-processing-facilities-survey">https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-ind



#### Table 16: Log Home Mills, 2020

Mill Number	Company	Location of Mill	Administrative Areas	Natural Resource District
190	Artisan Log and Timber Homes	Ruskin	Coast	Chilliwack
38	Bay West Manufacturing Inc.	Tappen	South	Okanagan Shuswap
697	Calija Log & Timber Homes Ltd.	93 Mile	South	100 Mile House
694	Canada's Log People Inc.	100 Mile House	South	100 Mile House
522	Chinook Log Homes Ltd.	Bear Flats, Montney	North	Peace
733	DBD LOG HOMES	Lone Butte	South	100 Mile House
46	Hamill Creek Timber Homes (2010) Ltd	Meadow Creek	South	Selkirk
216	Lake Country Log Homes (2009) Ltd.	Malakwa	South	Okanagan Shuswap
218	Maurer Construction Ltd.	Penticton	South	Okanagan Shuswap
458	Moore Log and Timber Homes	Abbotsford	Coast	Chilliwack
230	Nicola LogWorks Limited	Merritt	South	Cascades
474	Pioneer Log Homes of BC	Williams Lake	South	Cariboo Chilcotin
57	Roundwood Log homes	Prince George	North	Prince George
693	Sitka Log Homes Inc.	100 Mile House	South	100 Mile House
58	Sperlich Log Construction Inc	Enderby	South	Okanagan Shuswap
1022	Stonehouse Woodworks	Golden	South	Selkirk
602	T.L. Timber Ltd.	Cawston	South	Okanagan Shuswap
59	Tall Timber Log Builders	Popkum	Coast	Chilliwack
63	West Coast Log and Timber Homes	Gibsons	Coast	Sunshine Coast