
Major Primary Timber Processing Facilities in British Columbia

2013



Ministry of
Forests, Lands and
Natural Resource Operations

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2013

Competitiveness and Innovation Branch
Ministry of Forests, Lands and Natural Resource Operations
Victoria, B.C.

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Foreword

This edition of the *Major Primary Timber Processing Facilities in British Columbia* summarizes timber processing mills that operated during 2013. It covers sawmills, veneer mills and panel plants, pulp and paper mills, chip mills, pellet mills and pole and post mills. Some do not have primary log processing capabilities. For mills that produced more than one product (e.g. lumber and veneer), each operation is listed in the respective sections of the report. Coverage does not include re-manufacturing plants.

Most of the information was gathered through the 2013 and earlier surveys of individual processing mills. The 2012¹ and 2013 surveys included small lumber mills with less than 40 million board feet capacity. Shake and shingle mills were not surveyed, so this report provides estimates. If a mill did not submit a response, mill specific information reported in trade publications, directories and corporate annual reports may have been used. In some cases Ministry of Forests, Lands and Natural Resource Operations staff provided estimates based on their knowledge of the operation and information reported in previous years.

The Coast and Interior portions of the Province are the historic descriptors used to define coast versus interior cruising and appraisal guidelines. This is consistent with all previous editions of this report. Conversely, there are currently three administrative “Areas” (i.e., Coast, South, and North) that have a few different boundaries. The Areas and the Natural Resource Districts were applied in the Appendix.

This report is available free of charge on the Ministry of Forests, Lands and Natural Resource Operations Internet site at:

<http://www.for.gov.bc.ca/het/fibre.htm>

Comments, errors or omissions may be sent to the contact information at the website or by mail at the following location:

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¹ A separate 2012 report will not be published. Surveying was delayed in switching to an electronic survey system.

Acknowledgements

The cooperation of mill personnel who responded to the Ministry of Forests, Lands and Natural Resource Operations survey is gratefully acknowledged.

The important role played by Ministry of Forests, Lands and Natural Resource Operations regional and district staff in securing mill responses is also gratefully acknowledged.

The survey and analyses were led by Tim Bogle and Jiali Leng and conducted by Jiali Leng and Tim Bogle. Some data was provided by Alex Barnes, John Cook and Judith Elkins.

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Abbreviations for Products

CHP	- Chip	PLE	- Pole
LBR	- Lumber	PLT	- Pellet
LVL	- Laminated Veneer Lumber	PLY	- Plywood
OSB	- Oriented Strand Board	PNL	- Other Panel
PLP	- Pulp	PST	- Fence Post
PPR	- Paper	UTI	- Utility Pole
		VNR	- Veneer

Introduction

This report presents summary statistics derived from the 2013 and earlier mill surveys and selected analyses of these statistics. Fibre supply and log use in the Province are examined through a series of tables and pie charts. These are followed by time series statistics for lumber, veneer mills, pulp and paper, and pellet mills.

Each year, a list of operating mills in each mill category was compiled, based on the previous list and various sources of information on mill openings and closures. Electronic surveys were sent to mill operators, followed by up to three reminders by the same method and finally phone calls where necessary. Based on responses, mills are classified as a) open with response, b) presumed open without response, c) did not operate at all during the year (temporary or indefinite closure) or d) closed (permanently). Statistics in this report are derived from mills in category a and b.

The survey was not sent to shake and shingle mills so estimates for these mills were used in the analysis of wood fibre supply and use. Details on how these estimates were obtained are provided in footnotes to the figures.

Wood Fibre Supply and Log Use in British Columbia, 2013

Figure 1 shows the estimated primary log use was approximately 64.46 million cubic metres in 2013, up from 61.4 million cubic metres reported in 2011 and 16.26 million cubic metres above the 2009 level of 48.2 million cubic metres.

Log supply exceeded log use by about 6.6 million cubic metres. There are several possible factors contributing to this difference:

- Some facilities were not sampled or log inputs were not accurate;
- Some small mills did not respond to the survey. Estimation for those mills was based on information provided in previous years and other reliable sources; and
- The increased use of cruise-based billing, which requires no waste estimate in the woods or scale reporting at the processing facility. Trees in the cruise estimate may not be transported out of the woods. However, even directly comparing cruise estimates and scale estimates can be problematic, as things such as expected decay, which reduces a cruise estimate, may not result in lower scale volume in actuality.

Lumber mills accounted for an estimated 72% of the total primary log use in 2013. The number of lumber mills operating in 2013 was 127, below the 132 mills operating in 2011. Provincial log exports rose from 8.9% in 2011 to 10.3% of primary log use in 2013. Coastal log exports increased from 27.4% in 2011 to 31.3% in 2013. Veneer and OSB mills accounted for 8.4% of primary log use while chip mills and pulp mill wood rooms² accounted for 3.4% of primary log use.

² When pulp mills are unable to obtain adequate chip supply, operators may choose to purchase whole logs and chip them at the mill site.

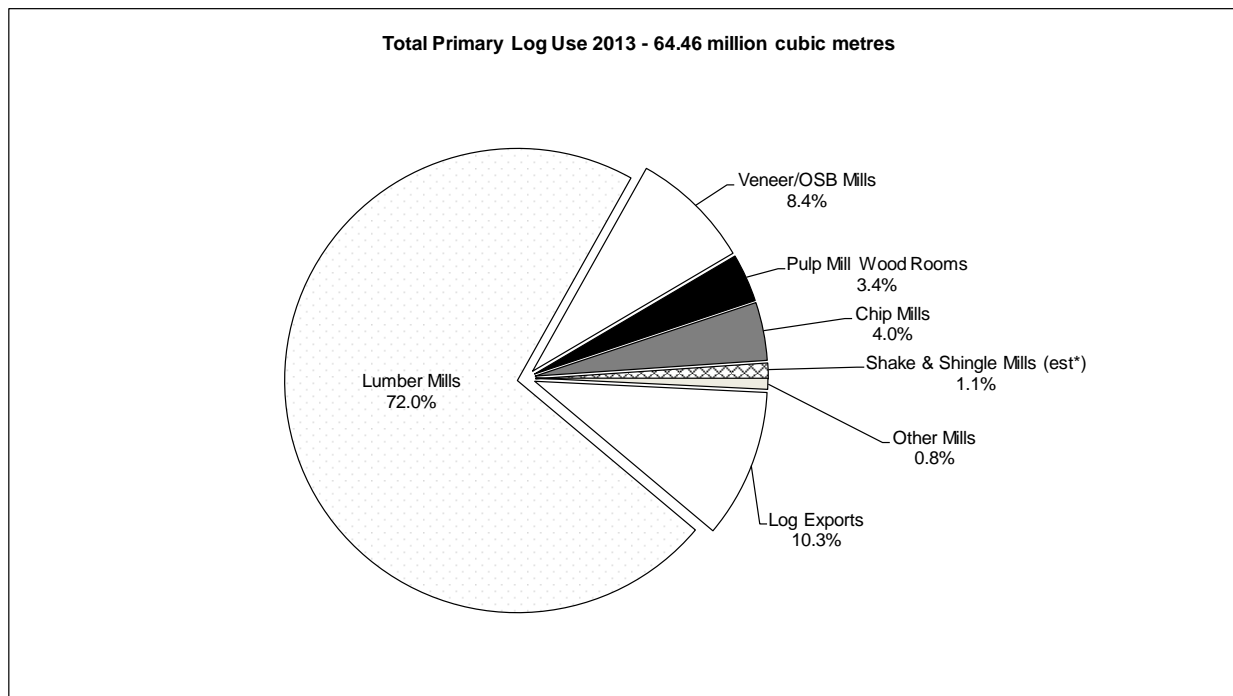
Figure 1: Estimated British Columbia Primary Log Use - 2013

	Coast			Interior			Province		
	Number of Mills	Est. Volume Used (000 m³)	Per Cent	Number of Mills	Est. Volume Used (000 m³)	Per Cent	Number of Mills	Est. Volume Used (000 m³)	Per Cent
Primary Log Use									
Lumber Mills	45	6,858	38.8%	82	39,571	84.6%	127	46,429	72.0%
Veneer/OSB Mills	4	1,648	9.3%	13	3,764	8.0%	17	5,412	8.4%
Pulp Mill Wood Rooms	3	1,438	8.1%	2	722	1.5%	5	2,160	3.4%
Chip Mills	6	1,446	8.2%	5	1,156	2.5%	11	2,602	4.0%
Shake & Shingle Mills (est*)	25	634	3.6%	3	68	0.1%	28	702	1.1%
Other Mills	12	131	0.7%	39	359	0.8%	51	490	0.8%
Log Exports		5,540	31.3%		1,127	2.4%		6,667	10.3%
TOTAL	95	17,695	100%	144	46,767	100%	239	64,461	100%
Log Availability									
Total Harvest**		20,252			50,754			71,006	
Log Imports								95	
TOTAL								71,101	
Difference		2,557	12.6%***		3,987	7.9%***		6,639	9.3%***

* Shake and shingle mills were estimated based on 2008 mill report and 2013 data provided by the Pacific Forestry Centre

**Total harvest excludes waste and reject for scaled-based sales

***In 2013, cruise-based sales represented about 46% of volume-billed in the Interior and 7% on the Coast. There is no waste assessment on cruise-based sales which explains much of the difference between apparent log availability and log use in the Interior where harvest was concentrated in stands containing damaged pine logs.



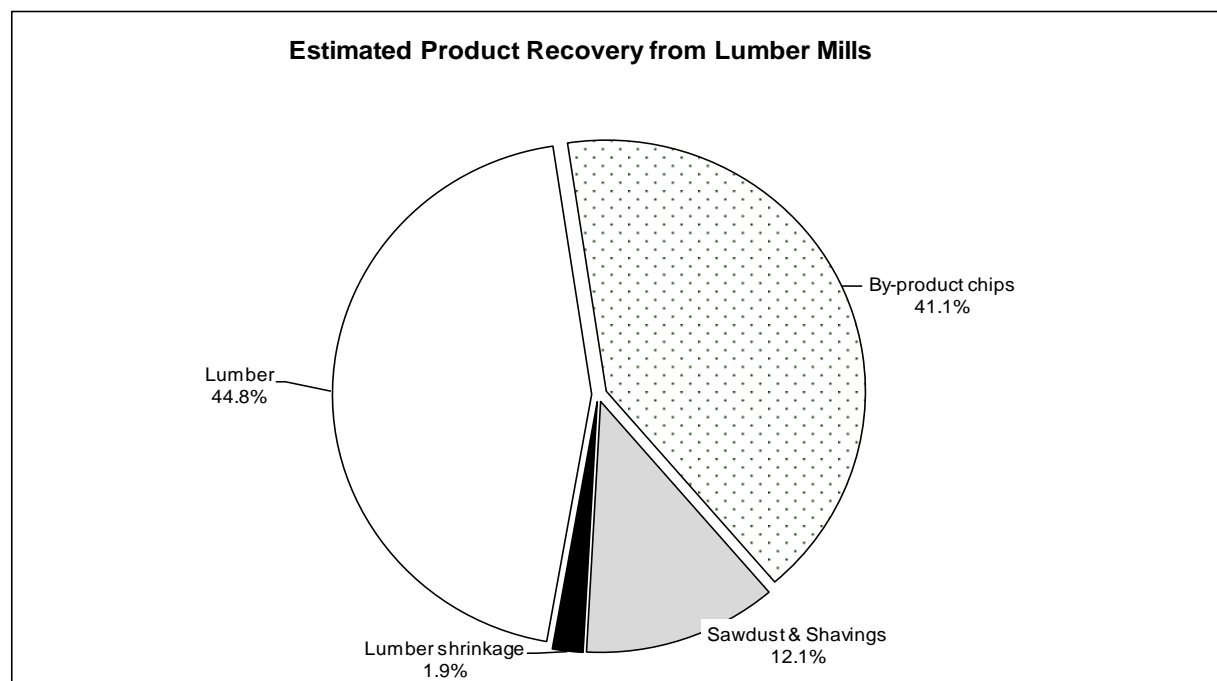
Sources:

Survey data; Statistics Canada trade data for total provincial exports and imports; BC Ministry of Forests, Lands and Natural Resource Operations log export statistics for the proportion of exports from the Coast versus Interior.

Note: Statistics above do not include mills that were closed or did not operate in 2013.

Figure 2: Estimates of Product Recovery from Lumber Mills - 2013

	Units	Coast	Interior	Province
Number of Mills		45	82	127
Log Input	(million m ³)	6.86	39.57	46.43
Lumber Output				
Lumber Output (nominal measure)	(mmfbm)	1.50	11.00	12.50
Lumber Recovery Factor	(mfbm/m ³)	0.219	0.278	0.269
Conversion Factor *	(m ³ /mfbm)	2.07	1.61	1.67
= Actual Volume of Lumber Produced	(million m ³)	3.11	17.71	20.82
As Per Cent of Log Input	(%)	45.3%	44.8%	44.8%
Lumber Shrinkage				
Shrinkage (5% of lumber production)	(million m ³)	-	0.89	0.89
As Per Cent of Log Input	(%)	0%	2%	2%
By Product Chip Output (from Lumber Mills)				
By Product Chip Output	(million bdu)	1.10	5.80	6.90
By Product Chip Recovery Factor	(bdu/000 m ³)	160	147	149
Conversion Factor*	(m ³ /bdu)	2.86	2.75	2.77
= Volume of Chips Produced	(million m ³)	3.15	15.95	19.10
As Per Cent of Log Input	(%)	45.9%	40.3%	41.1%
Sawdust and Shavings - Estimated Volume				
	(million m ³)	0.61	5.03	5.63
As Per Cent of Log Input	(%)	8.9%	12.7%	12.1%



Notes:

* Conversion factors are used to convert lumber output or by-product chips in nominal measure to solid wood equivalent.

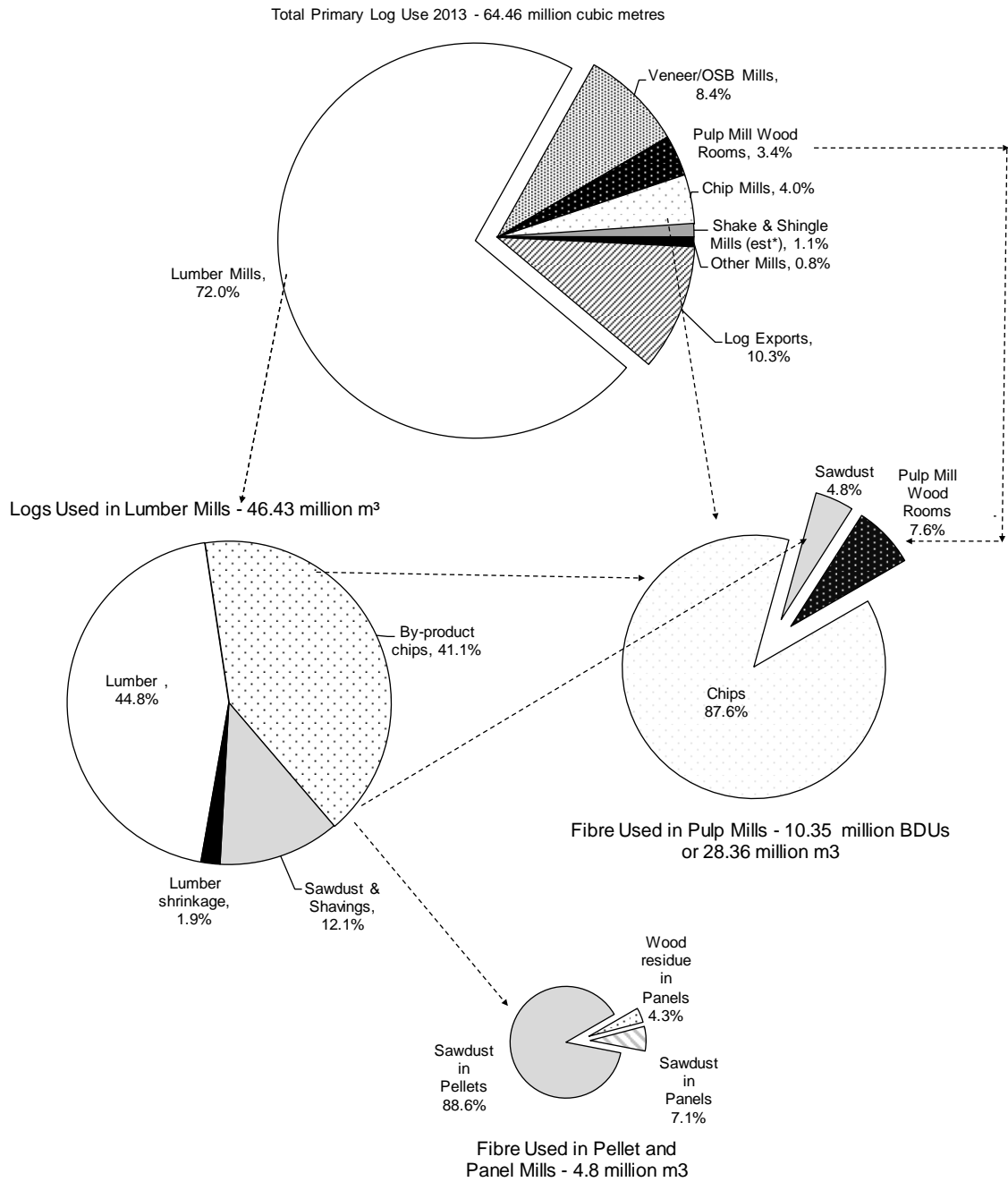
mmfbm = million board feet; mfbm = thousand board feet; m³ = cubic metres; bdu = bone dry unit = 2400 pounds.

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.

Figure 2 estimates product recovery from lumber mills. It shows that 44.8% of the volume of wood entering lumber mills was converted to lumber, 2% was lost through lumber shrinkage, and 41.1% was converted to chips and the remaining 12.1% is assumed to be sawdust and shavings.

Figure 3 combines information from Figures 1 and 2 with a chart showing the sources of fibre used by pulp mills, pellet and panel mills. In 2013, pulp mills are estimated to have used 28.36 million cubic metres in solid wood equivalents. Over 92% of the fibre used by pulp mills in 2013 was in the form of chips and sawdust obtained from other mills, while 7.6% was from logs chipped in the pulp mill. Fibre use in pellet and panel mills in 2013 was 4.8 million cubic metres in solid wood equivalents, an increase of 20% from 4 million cubic metres in 2011. This accounts for 77% of the reported sawdust and shavings from lumber mills. The remainder is generally burned at lumber mills to fuel kiln-driers and other mill energy requirements.

Figure 3: Estimated British Columbia Log and Fibre Use - 2013



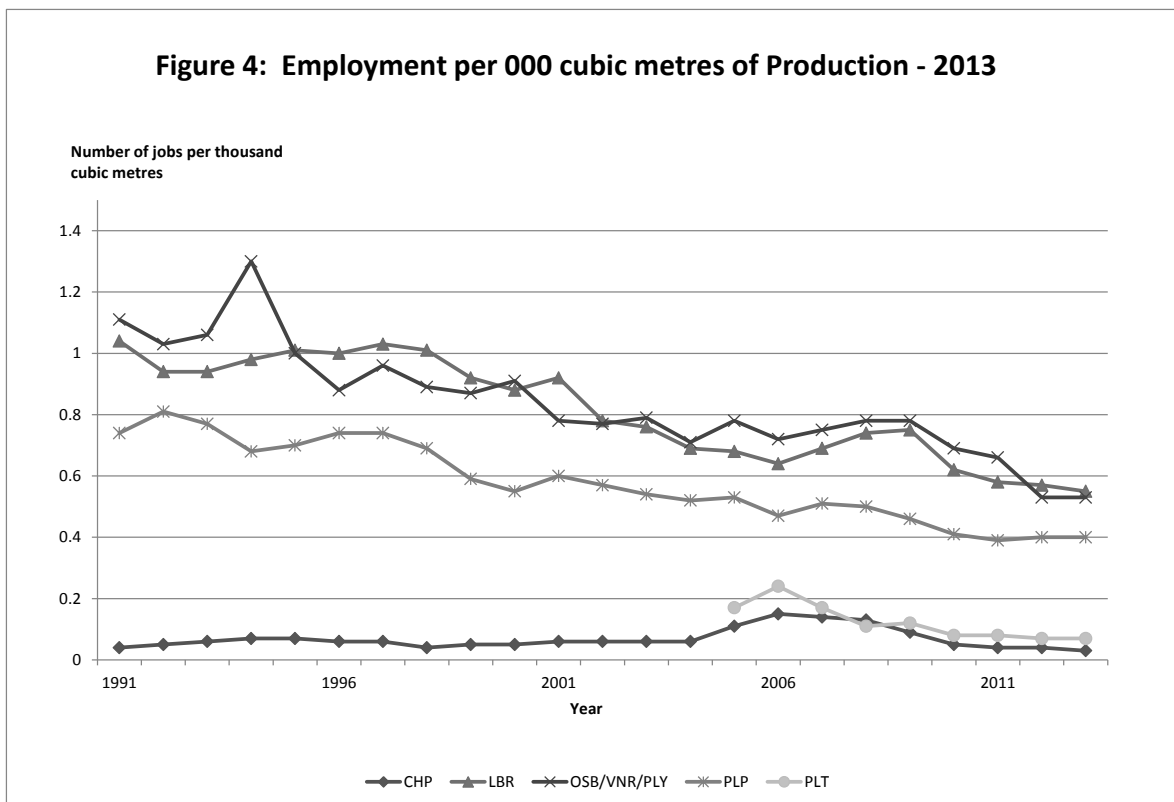
Productivity

Productivity measures are important economic indicators of the efficiency of operations. Labour productivity appears to have increased substantially over the past decade.

Figure 4 shows, the employment per thousand cubic metres of product in solid wood equivalents (i.e., cubic metres of solid product). Specifically:

- The increased efficiency for lumber mills was reversed slightly from 2007 to 2009, as lumber mills were dealing with logs damaged by the mountain pine beetle. Mills may also have retained workforces despite lower output levels during the economic downturn, in preparation for a return to normal operations.
- Employment per thousand cubic metres for OSB/VNR/PLY mills slightly decreased in 2013 due to adjustments of employment data.
- Chip and pellet mills required the fewest jobs to create products.

This chart captures only direct reported mill employment and does not represent any of the indirect employment required to sustain mill operations. Some of the functions carried out in vertically integrated companies during the early 1990s have been contracted out and no longer reside within the company of the mill operator. This may explain some of the apparent loss of employment and increase in labour productivity.



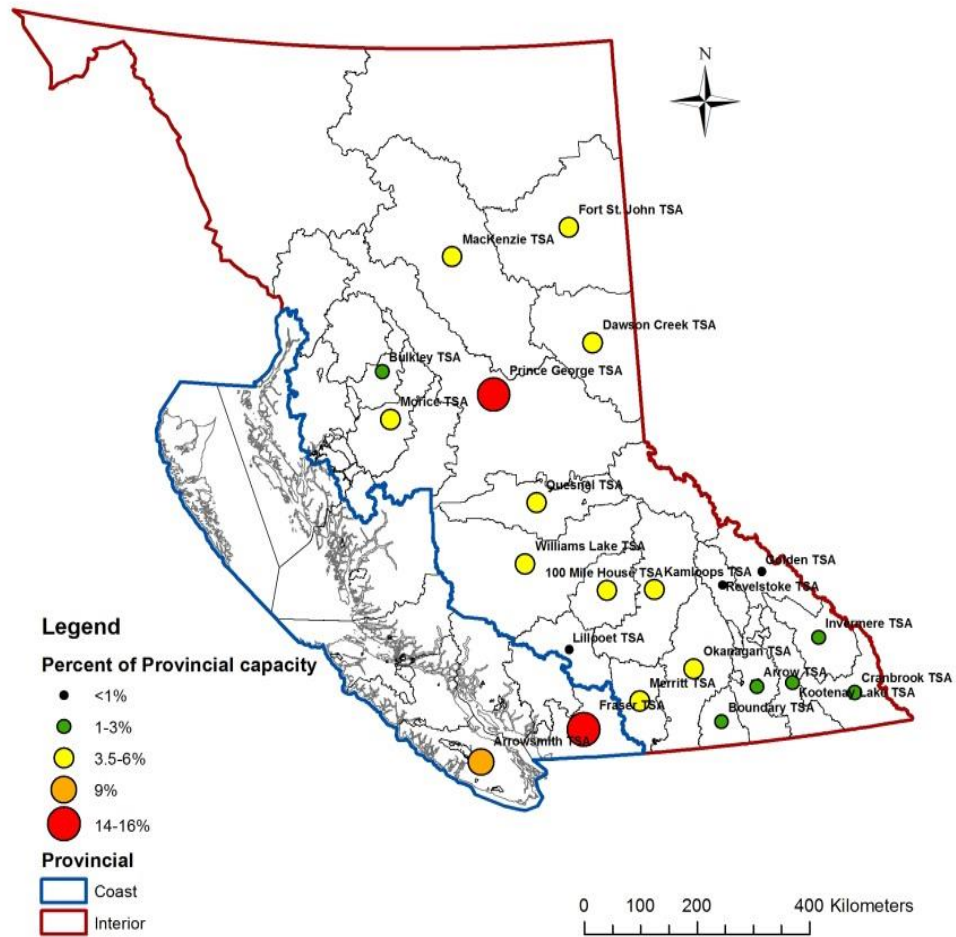
Log Input Capacity

Mill capacity is generally greater than both fibre supply and log use. Figure 5 shows provincial mill capacity, based on log input for LBR/VNR/OSB/LVL mills, summarized by timber supply area (TSA), for mills producing at least 40 million board feet per year. The provincial operating mill log input capacity in 2013 for these mills was 52.9 million cubic metres, down from 56.94 million cubic metres in 2011. Log input for these mills was 50.6 million cubic metres in 2013.

Log input and mill capacity for the Lakes TSA and Kispiox TSA have been significantly reduced since 2012:

- One large sawmill in the Lakes TSA was destroyed by fire in January 2012 with no operation in 2013; and
- In 2012, Kitwanga Forest Products Ltd. shut down its sawmill in the Kispiox TSA. Although this mill was reopened in 2013, the annual capacity for the mill was down from 48.81 million board feet per year in 2011 to 28.8 million board feet per year in 2013.

Figure 5: Provincial Log Input Capacity by Timber Supply Area in 2013³



Source: Competitiveness and Innovation Branch, 2014
 Ministry of Forests, Lands and Natural Resource Operations

³ Contribution by TSA for mills produces at least 40 million board feet per year. TSAs without mills of this size are not labeled but are outlined.

Time Series Data

1) Small, Medium, Large and Very Large Lumber Mills

The total number of operating lumber mills in B.C. decreased from 132 in 2011 to 128 in 2013. Figure 6.1 and 6.2 present the distribution of lumber mills by mill size for the Coast, North and South areas. For reporting purposes, mills are categorized into four 100 million board feet classes, producing four size classes, namely small, medium, large and very large.

Figure 6.1 presents the distribution of B.C. lumber mills by size for the North, Coast and South areas in 2013:

- In the North, the number of very large mills doubled from three in 2011 to six in 2013, while the number of large and medium mills reduced over the 2011-2013 period. Small mills increased from eight in 2011 to 11 in 2013.
- On the Coast, one very large mill began appearing in 2013. The number of large and medium mills remained stable. The number of small mills decreased from 38 in 2011 to 34 in 2013.
- In the South, the number of mills in four size classes remained relatively stable between 2011 and 2013.

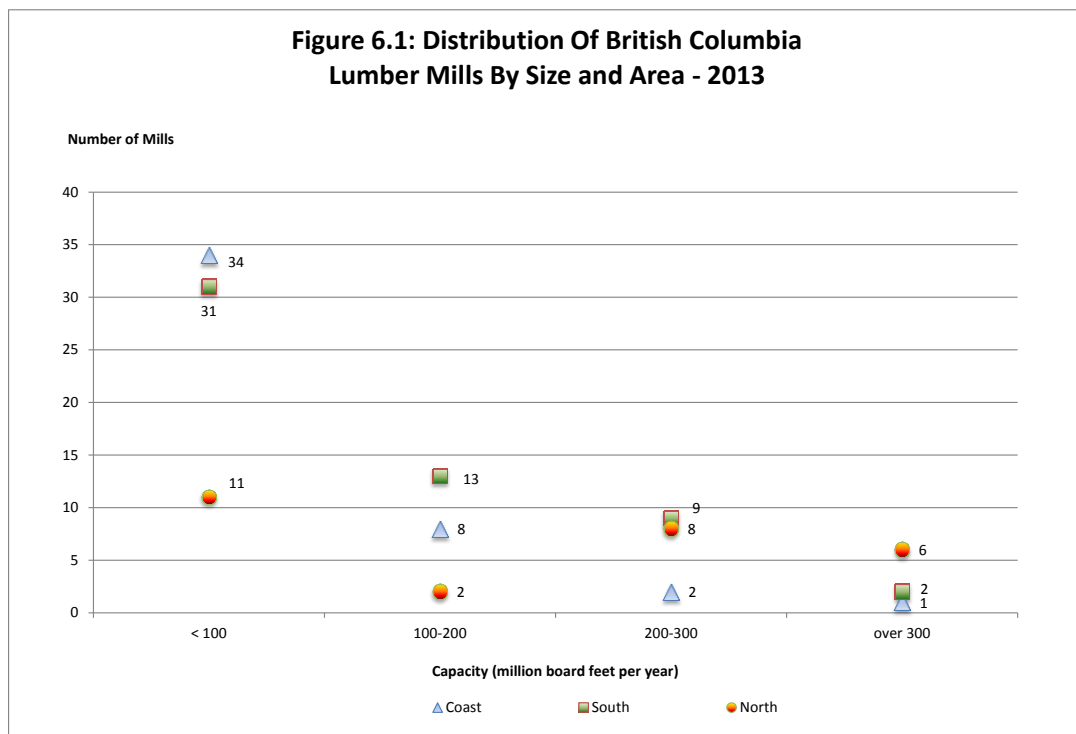


Figure 6.2 demonstrates the distribution of output by mill size for the North, Coast and South areas:

- Most of the output in the North area was processed by large and very large mills in the 200-300 million board feet per year and over 300 million board feet

per year classes. For the other two regions, it was the medium and large classes that produced most of the lumber.

- In the North, the output of very large mills significantly increased by 65% in 2013 despite the reduction in output of large and medium mills. This indicated that some large forest companies had realigned their production configurations. They might shift the capacity from their large and medium mills to very large mills nearby to increase production efficiency and reduce operational costs.
- In the South, the production of medium and large mills was up by 18% and 25% in 2013. However, the output of very large mills was down by 17%.

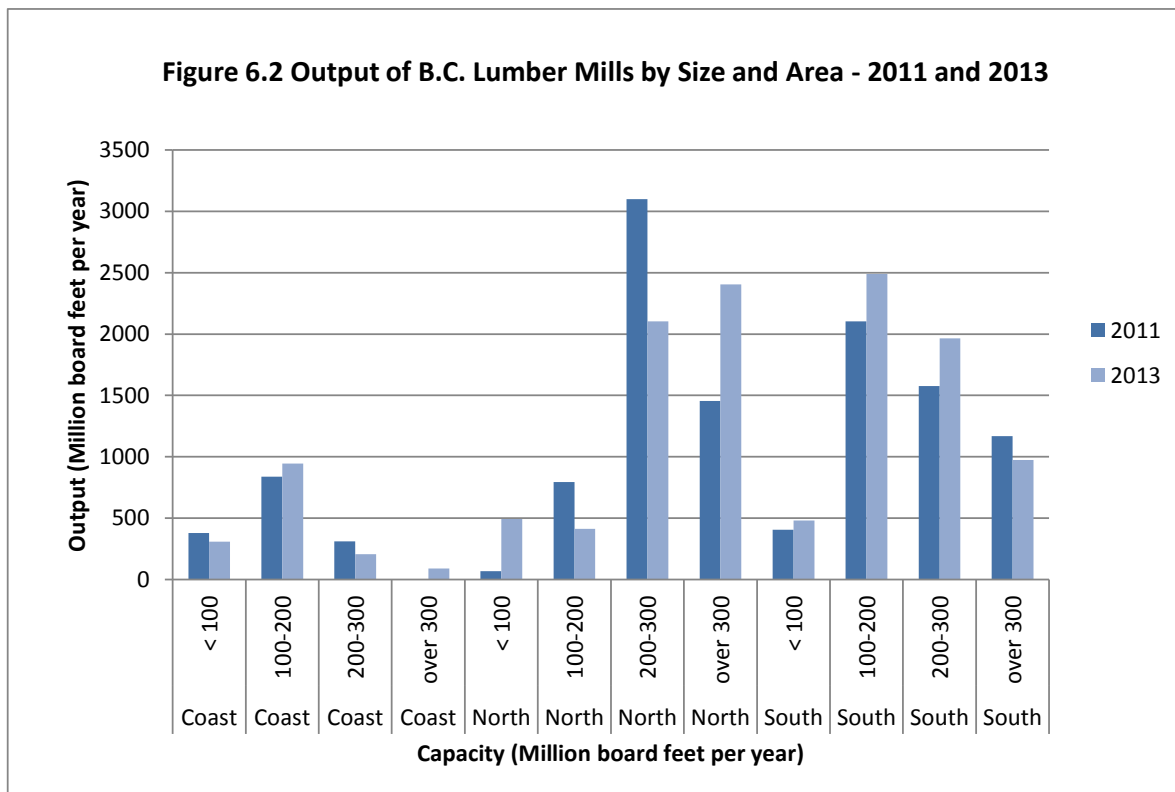


Table 1 shows detailed statistics for the larger of the small mills (at least 40 million board feet per year) as well as the medium, large and very large sawmills in B.C. from 1990 to 2013.⁴ In 2013, there were 19 mills on the Coast and 51 in the Interior for a total of 70 mills.

Figures 7a and 7b show the total log input, total lumber output and capacity for mills in the Coast and Interior respectively. Coastal capacity remained stable over 2012 and 2013. In the Interior, the capacity decreased by 0.7 billion board feet between 2011 and 2013 while increasing output.

As seen in Table 1, as well as Figure 8, the number of operating lumber mills decreased from 77 in 2011 to 70 in 2013. The average capacity in the Interior slightly increased. Average capacity was higher in the Interior than on the Coast.

Figure 9 shows that capacity utilization rebounded significantly in recent years in the Interior, to 106%. In the Coast region, the capacity utilization rate slightly increased from 56% in 2011 to 60% in 2013.

The lumber recovery factor (LRF) remained stable in the Interior. The LRF slightly increased on the Coast over the period 2011-2013.

⁴ The time series data was developed from the historical database recorded in the Ministry of Forests, Lands and Natural Resource Operations annual mill survey and only uses data for those mills with annual capacity of at least 40 million board feet. Small mills less than 40 million board feet have not been consistently surveyed for inclusion in the time series. The 57 mills in this group processed 1.9 % of provincial log volume and are listed in the Appendix.

Table 1: British Columbia Lumber Mill Summary Statistics for mills with estimated annual capacity of at least 40 million board feet

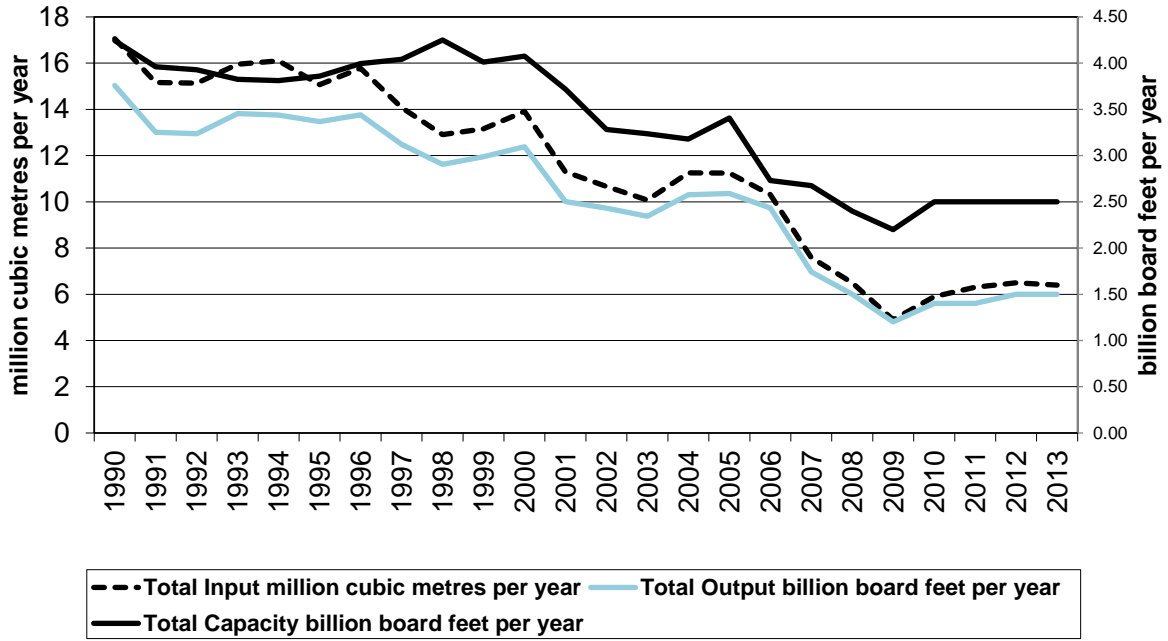
		1990...	1995...	2000...	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change 1990- 2013
COAST														
Number of Mills		43	38	36	29	24	24	21	19	21	21	19	19	-56%
Total Capacity	billion board feet per year	4.2	3.8	4.0	3.4	2.7	2.7	2.4	2.2	2.5	2.5	2.5	2.5	-41%
Total Output	billion board feet per year	3.8	3.3	3.1	2.6	2.4	1.7	1.5	1.2	1.4	1.4	1.5	1.5	-60%
Total Input	million cubic metres per year	17.1	15.0	13.8	11.2	10.3	7.6	6.5	4.9	5.9	6.3	6.5	6.4	-62%
Average Capacity	million board feet per mill per year	99	100	111	117	114	111	114	116	119	119	132	132	33%
Capacity Utilization	output divided by capacity	89%	88%	77%	76%	89%	65%	63%	55%	56%	56%	60%	60%	-32%
Lumber Recovery Factor	'000 board feet per cubic metre	0.220	0.223	0.222	0.231	0.236	0.230	0.231	0.245	0.237	0.222	0.231	0.234	6%
INTERIOR														
Number of Mills		88	83	77	71	72	72	62	53	52	56	51	51	-42%
Total Capacity	billion board feet per year	10.7	10.3	10.7	12.8	12.8	12.4	11.3	10.7	10.4	11.1	10.5	10.4	-3%
Total Output	billion board feet per year	10.0	10.0	10.5	14.1	14.2	13.3	9.7	7.9	9.5	10.5	10.6	11.0	10%
Total Input	million cubic metres per year	42.2	40.8	39.9	50.2	50.5	47.4	34.7	28.2	34.1	37.0	37.4	38.7	-8%
Average Capacity	million board feet per mill per year	121	124	139	180	177	172	182	202	200	198	206	204	68%
Capacity Utilization	output divided by capacity	93%	97%	99%	111%	111%	107%	86%	74%	91%	95%	101%	106%	13%
Lumber Recovery Factor	'000 board feet per cubic metre	0.236	0.245	0.263	0.282	0.281	0.280	0.280	0.280	0.279	0.284	0.283	0.284	20%
PROVINCE														
Number of Mills		131	121	113	100	96	96	83	72	73	77	70	70	-47%
Total Capacity	billion board feet per year	14.9	14.1	14.7	16.2	15.5	15.1	13.7	12.9	12.9	13.6	13.0	12.9	-13%
Total Output	billion board feet per year	13.7	13.3	13.6	16.7	16.6	15.0	11.2	9.1	10.9	11.9	12.1	12.5	-9%
Total Input	million cubic metres per year	59.2	55.7	53.8	61.4	60.8	55.0	41.2	33.1	40.0	43.3	43.9	45.1	-24%
Average Capacity	million board feet per mill per year	114	117	130	162	162	157	165	179	177	177	186	184	62%
Capacity Utilization	output divided by capacity	92%	94%	93%	103%	107%	100%	82%	71%	84%	88%	93%	97%	5%
Lumber Recovery Factor	'000 board feet per cubic metre	0.232	0.239	0.253	0.272	0.273	0.273	0.272	0.275	0.273	0.275	0.276	0.277	20%

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

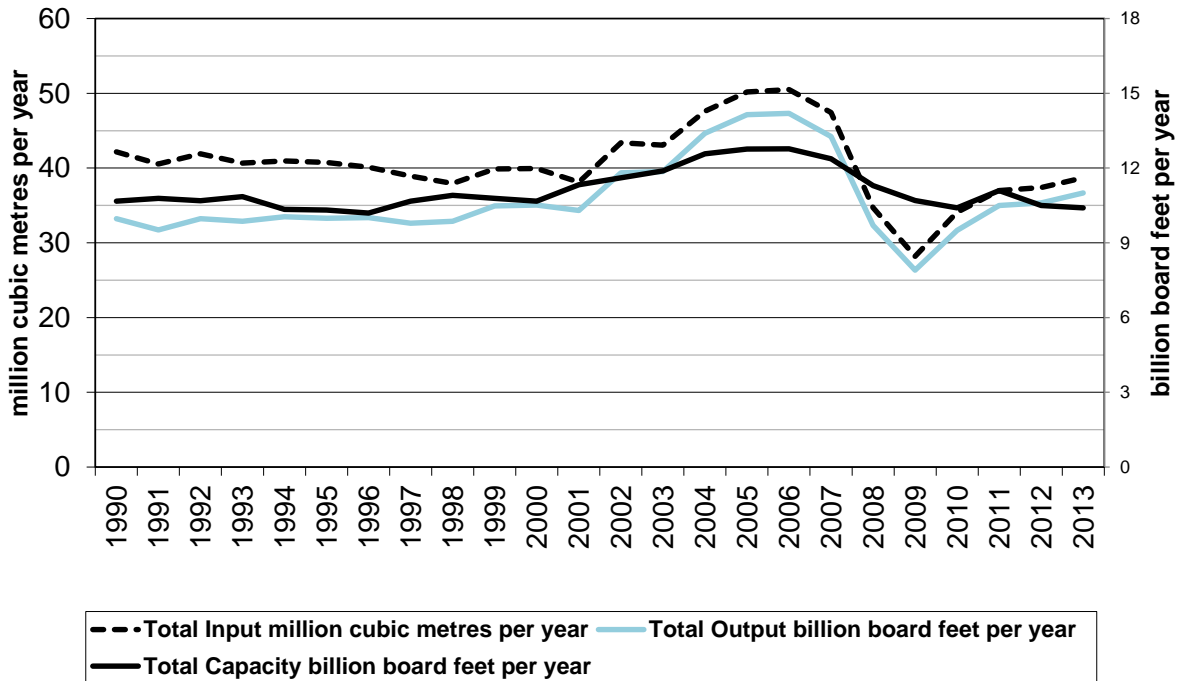
Notes:

Includes only those lumber mills with a minimum estimated annual capacity of 40 million board feet per year.
Capacity estimated assuming two 8-hour shifts, 240 days per year.

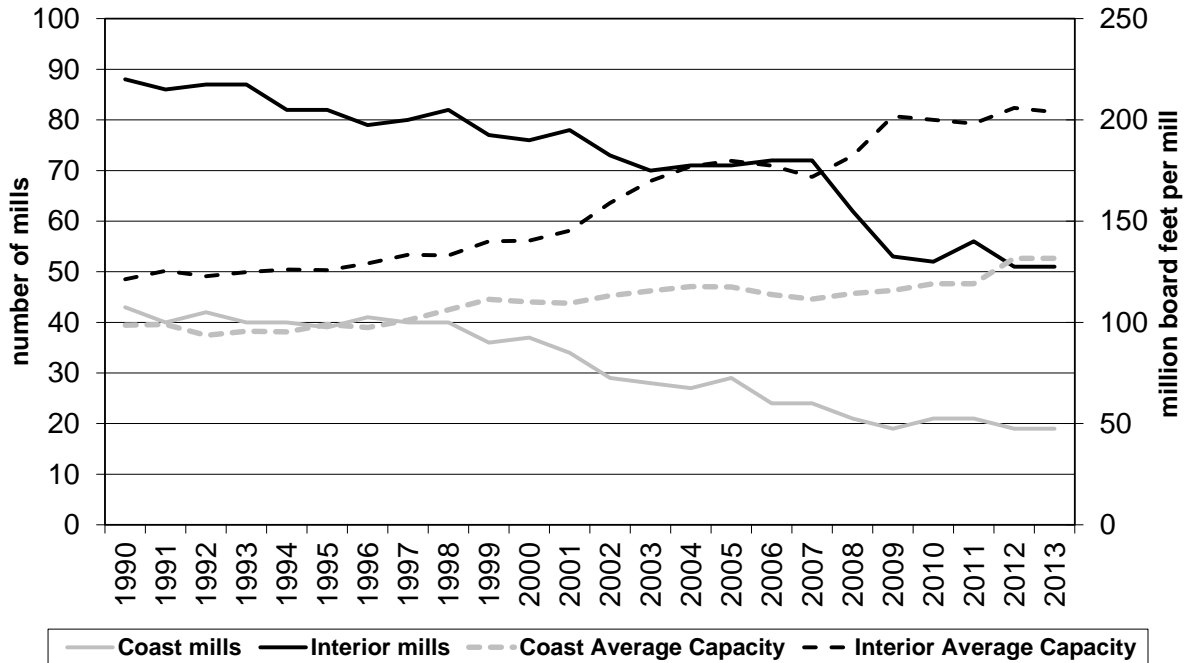
**Figure 7a: B.C. Lumber Mills (at least 40 million board feet)
Coast Capacity, Output and Log Input**



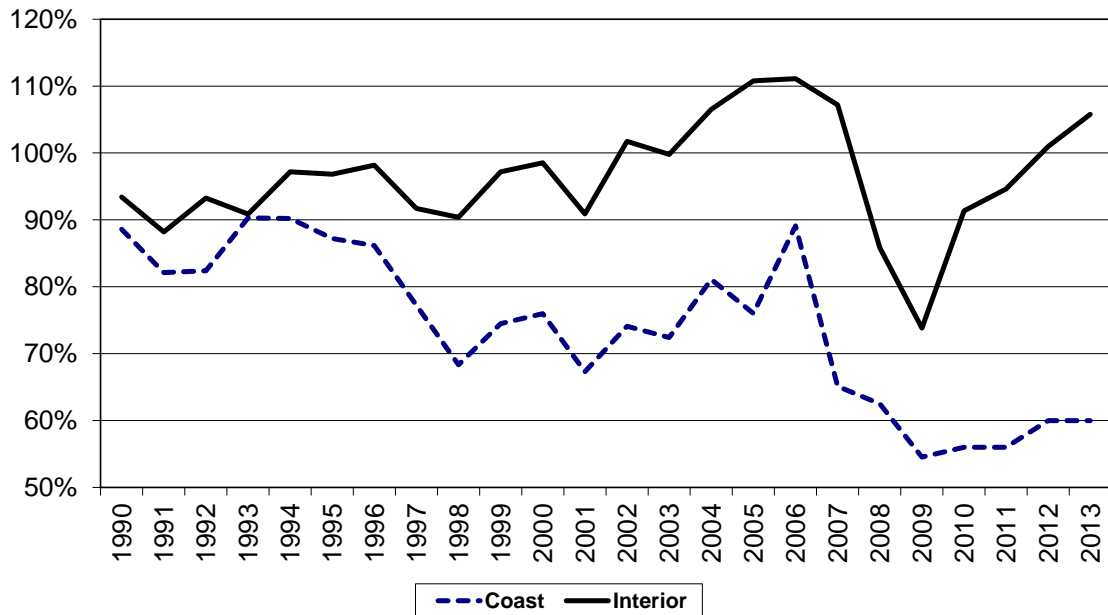
**Figure 7b: B.C. Lumber Mills (at least 40 million board feet)
Interior Capacity, Output and Log Input**



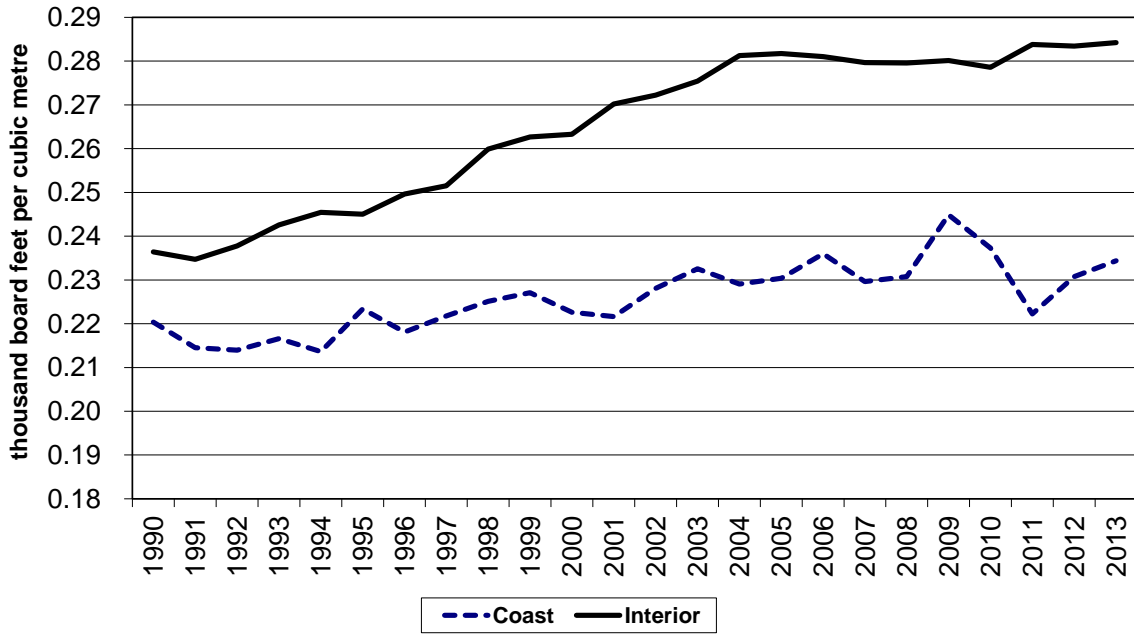
**Figure 8: B.C. Lumber Mills (at least 40 million board feet)
Number of Mills and Average Capacity**



**Figure 9: B.C. Lumber Mills (at least 40 million board feet)
Capacity Utilization**



**Figure 10: B.C. Lumber Mills (at least 40 million board feet)
Lumber Recovery Factor**



2) Veneer Mills

Veneer is used as an input to plywood manufacturing as well as an input to other engineered wood products such as laminated veneer lumber. Seven veneer mills in British Columbia have a plywood mill on the same site, whereas four mills produce “market veneer” for sale to plywood and other types of mills.

Table 2 gives a provincial overview of veneer mill statistics for 1990-2013. These statistics show 11 veneer mills operating in B.C. in 2013: three on the Coast and eight in the South. Total capacity in 2013 declined to the second lowest level since 1990.

Figure 11 shows that total output increased from 2.2 billion square feet (3/8” basis) in 2011 to 2.4 billion square feet (3/8” basis) in 2013. Average capacity decreased by 22.5% over the period of 2011-2013 (Figure 12).

Figure 13 shows that between 2002 and 2006, an additional shift was possible, hence capacity utilization nearing or exceeding 130%. Operations were back to normal capacity over the period of 2008-2011. The capacity utilization jumped up to 138% again in 2012 and reached its peak at 141% in 2013.

Figure 14 shows that the average recovery factor steadily declined from 2004 to 2010 but rebounded to its record high in 2013.

Table 2: British Columbia Veneer Mill Summary Statistics

		1990...	1995...	2000...	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change 1990- 2013
Number of Mills		20	17	16	17	16	15	13	12	10	11	11	11	-45%
Total Capacity	(billion square feet 3/8" basis)	2.1	2.1	2.0	2.6	2.5	2.3	2.0	2.1	2.0	2.2	1.6	1.7	-19%
Total Output	(billion square feet 3/8" basis)	2.3	2.4	2.6	3.7	3.3	2.9	2.3	1.9	2.0	2.2	2.2	2.4	4%
Total Log Input	(thousand cubic metres)	4.4	4.1	4.4	6.3	5.7	5.1	4.0	3.4	3.6	3.8	3.6	3.8	-14%
Average Capacity	(million square feet per mill)	105	124	125	153	156	153	154	175	200	200	145	155	47%
Average Log Input	(thousand cubic metres per mill)	220	244	274	371	356	340	308	283	360	345	327	345	57%
Capacity Utilization	(output divided by capacity)	110%	112%	126%	141%	132%	126%	115%	90%	100%	100%	138%	141%	29%
Recovery Factor	(square feet per cubic metre log input)	523	585	591	587	579	569	575	559	556	579	611	632	21%

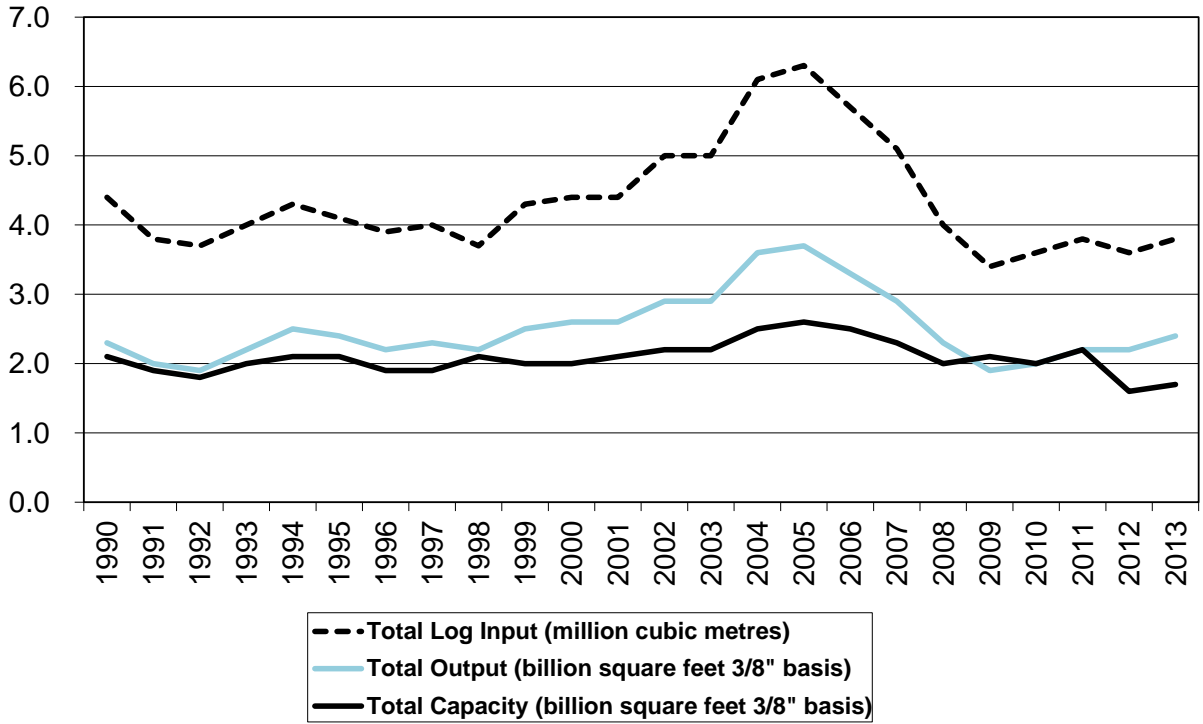
Source: Major Primary Timber Processing Facilities in British Columbia, ministry database, various years

Notes:

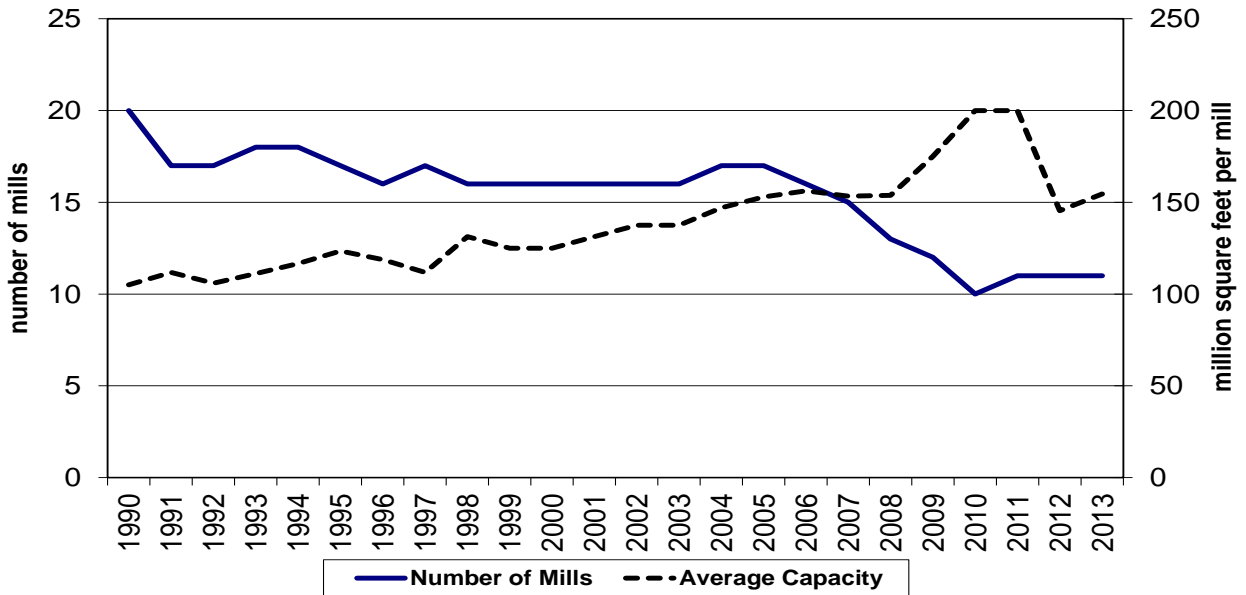
Output Capacity is estimated based on two 8 hour shifts, 240 days per year.

Small mills using an average of less than 25,000 cubic metres of logs per year are not included in these statistics.

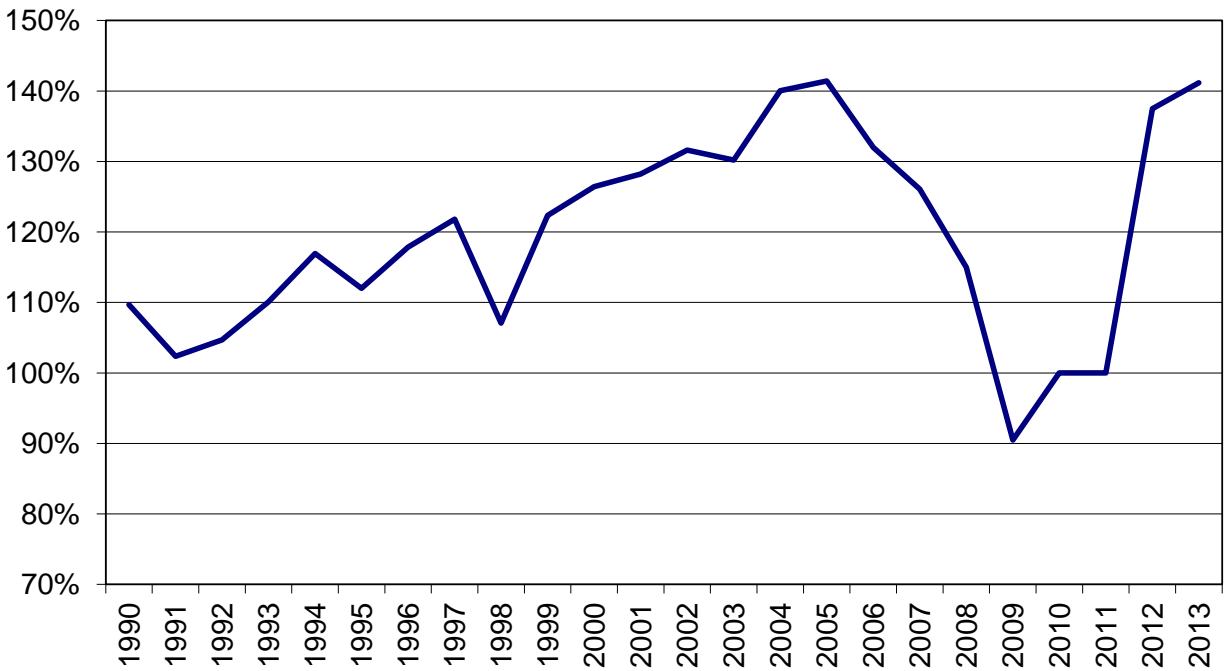
**Figure 11: B.C. Veneer Mills
Capacity, Output and Log Input**



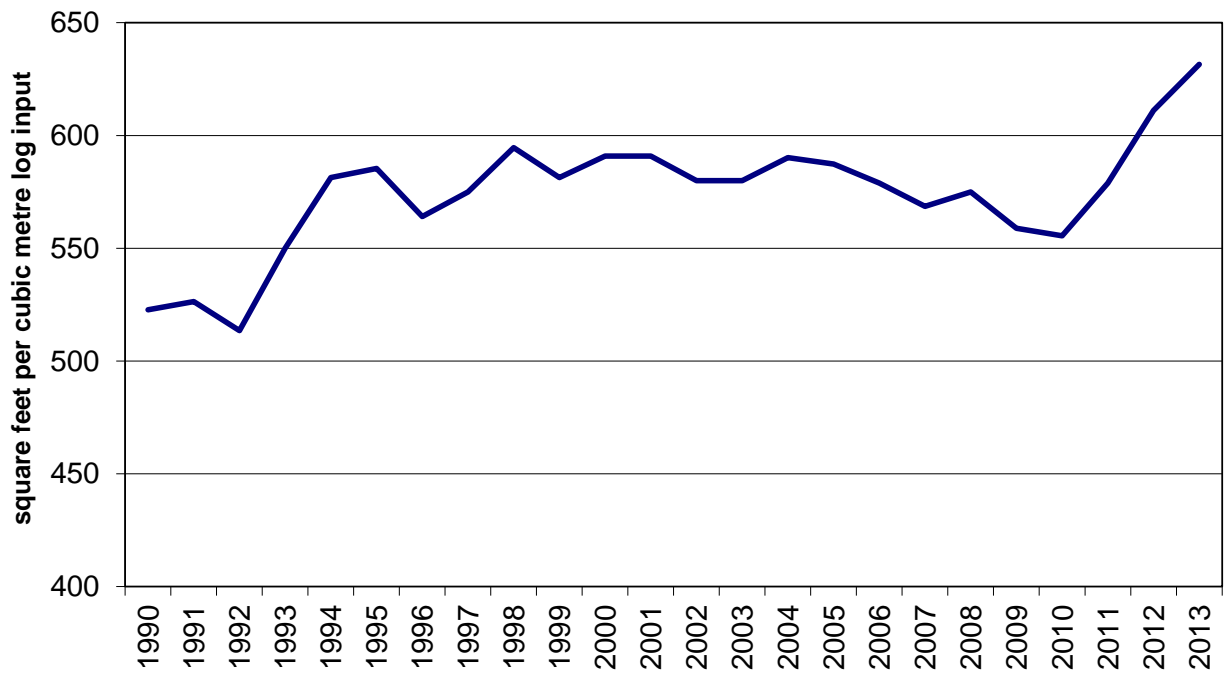
**Figure 12: B.C. Veneer Mills
Number of Mills and Average Capacity**



**Figure 13: B.C. Veneer Mills
Capacity Utilization**



**Figure 14: B.C. Veneer Mills
Recovery Factor**



3) Pulp and Paper Mills

Pulp is used primarily as a raw material for paper and paperboard products as well as packaging.

There were 18 pulp mills and six paper mills in 2012, with all paper mills integrated with the pulp operations. In 2013, Tembec Industries Inc. (Chetwynd) and Kruger Products L.P. (New Westminster) closed their pulp mills, which led to a total of 16 pulp mills and six paper mills in the Province.

Six of the 16 pulp mills are on the Coast and 10 are in the Interior, while five of the paper mills are on the Coast and only one is in the Interior. The main pulp products are bleached softwood kraft pulp and chemi-thermo-mechanical pulp (CTMP). Most of the paper produced in British Columbia is newsprint.

As lumber mills increased production, whole log chipping at pulp mills declined from 8.4% of fibre input in 2011 to 7.6% in 2013. In contrast with eight pulp mills operating wood rooms in 2009, only five required the use of whole log chipping operations in 2013.

Table 3 presents an overview of pulp and paper mills in the province for 1991-2013. Total pulp mill capacity and output in B.C. have declined steadily since 1991. The pulp sector lost 0.33 million tonnes of capacity in 2012. In 2013, output matched capacity as seen in Figures 15 and 16.

As seen in Figure 17, paper mill capacity slightly decreased by 0.12 million tonnes in 2013 compared to 2011 level. Output remained relatively stable over 2011-2013. In 2013, average capacity was 234,000 tonnes per mill and capacity utilization was only slightly above 100%.

Table 3: British Columbia Pulp and Paper Mill Summary Statistics

	1991...	1995...	2000...	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change 1991- 2013
Number of Pulp Mills	24	24	23	22	21	21	19	19	18	18	18	16	-33%
Total Capacity (million tonnes)	8.42	8.21	7.84	7.42	7.42	6.84	6.36	6.33	5.96	6.02	5.69	5.48	-35%
Total Output (million tonnes)	6.68	7.30	7.56	7.09	7.08	6.51	5.85	5.27	5.49	5.76	5.67	5.50	-18%
Total Fibre Input (million bone dry units)	11.76	12.75	13.44	12.36	11.79	10.96	10.12	8.87	9.27	10.13	10.26	10.35	-12%
Average Capacity (thousand tonnes)	351	342	341	337	353	326	335	333	331	334	316	343	-2%
Average Fibre Input (thousand bone dry units)	490	531	584	562	562	522	532	467	515	563	570	647	32%
Capacity Utilization	79%	89%	96%	96%	95%	95%	92%	83%	92%	96%	100%	100%	26%
Number of Paper Mills	12	11	11	11	11	9	9	8	6	6	6	6	-50%
Total Capacity (million tonnes)	3.47	3.06	3.27	2.98	3.19	2.86	2.84	2.52	1.52	1.52	1.43	1.40	-60%
Total Output (million tonnes)	2.74	2.75	3.17	3.02	3.04	2.55	2.42	2.03	1.49	1.48	1.49	1.47	-46%
Average Capacity (thousand tonnes)	289	278	297	271	290	318	315	315	253	253	239	234	-19%
Capacity Utilization	79%	90%	97%	101%	95%	89%	85%	81%	98%	98%	104%	105%	33%

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

Notes:

Estimated annual capacity is based on a standardized operation of 345 operating days per year, one 24-hour shift per day. Actual operations may vary from this schedule.

Pulp mills included in these statistics are those that use wood fibre input.

Total capacity and total output for 2010 and 2011 was adjusted to reflect changes made for one pulp mill.

Figure 15: B.C. Pulp Mills Capacity, Output and Input

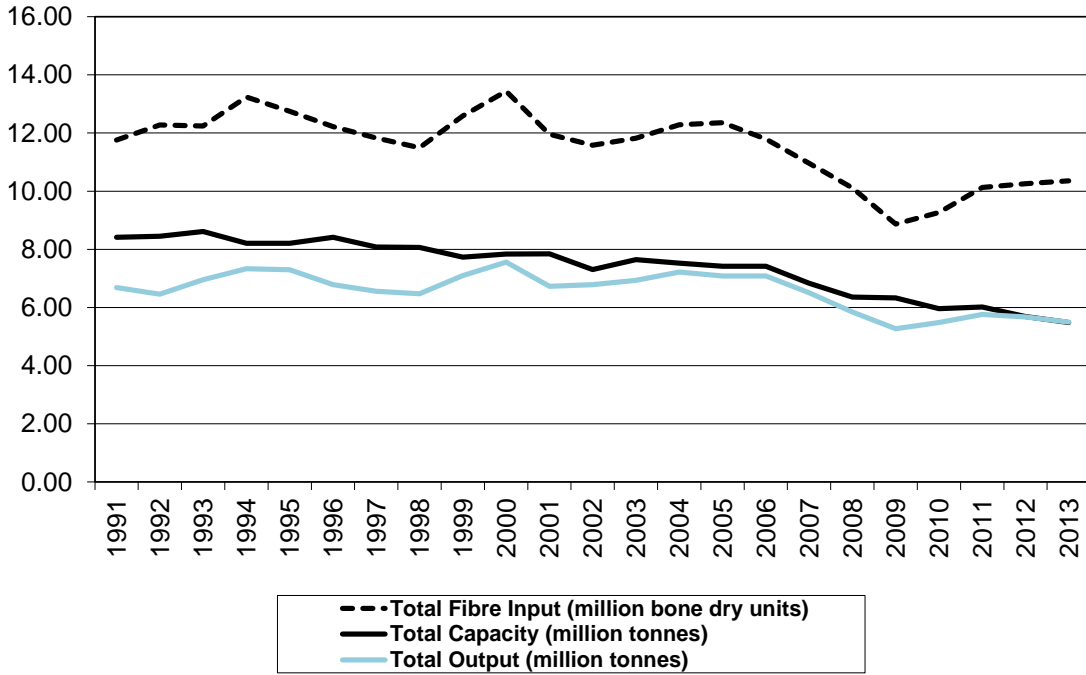
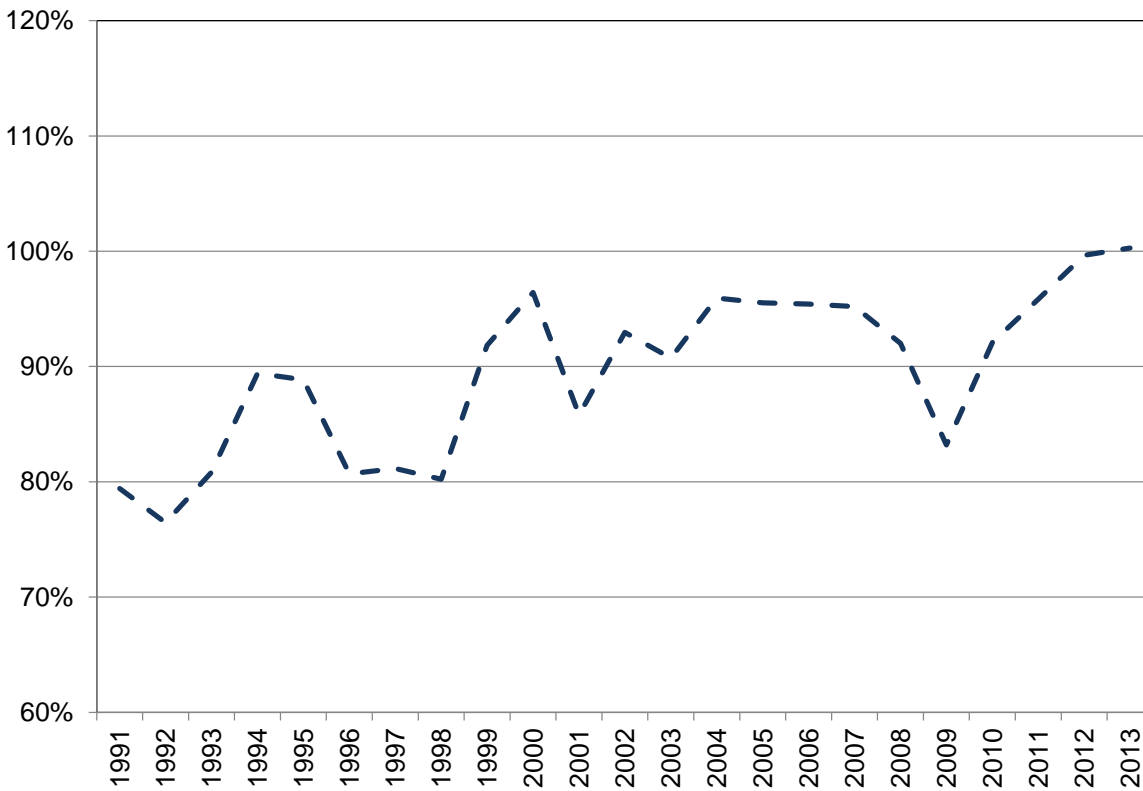
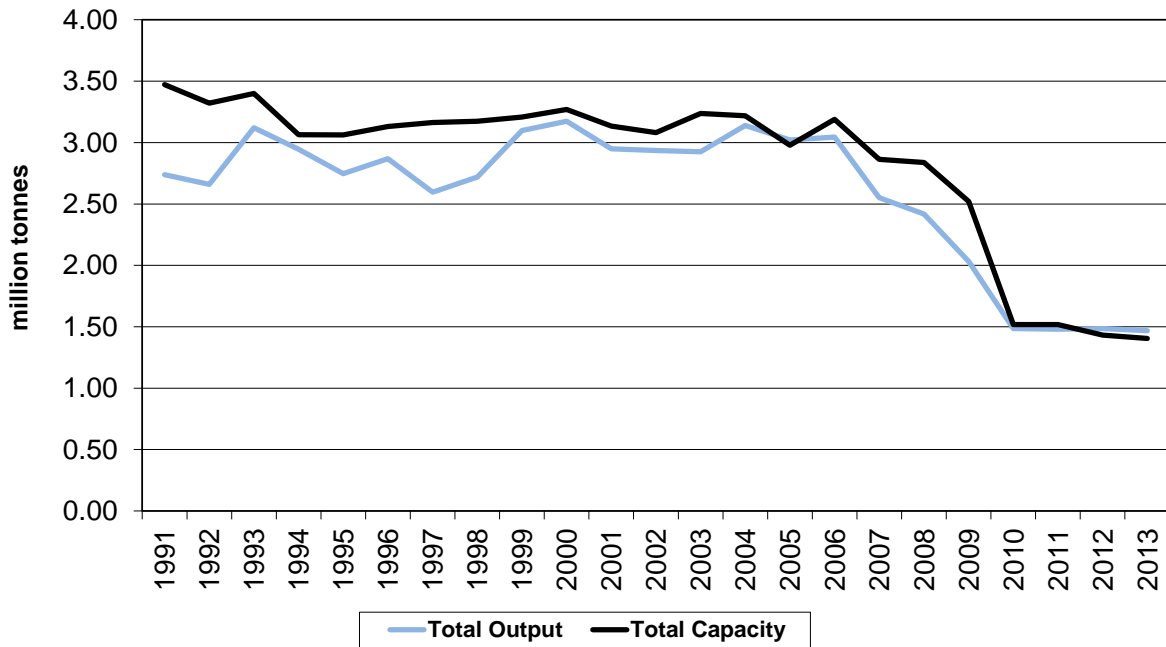


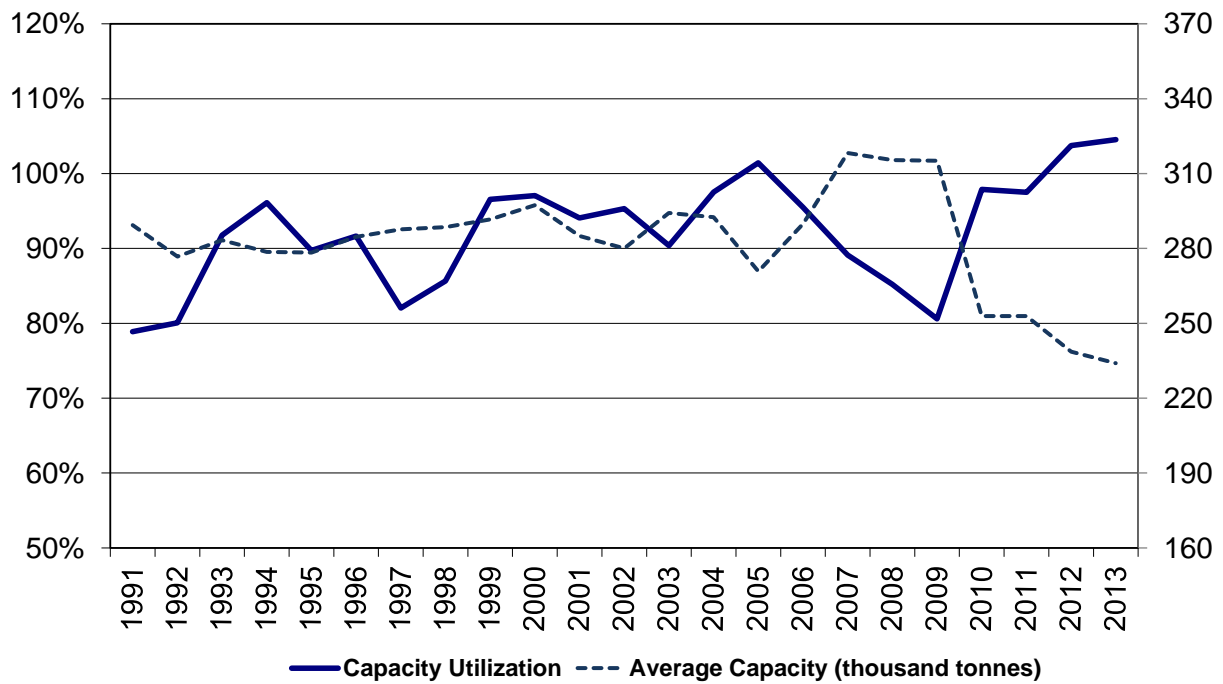
Figure 16: B.C. Pulp Mills Capacity Utilization



**Figure 17: B.C. Paper Mills
Capacity and Output**



**Figure 18: B.C. Paper Mills
Capacity Utilization and Average Capacity**



4) Pellet Mills

Wood pellets are primarily used as wood fuel and are usually made from compacted sawdust. Pellets are produced from the byproducts of sawmilling and other wood processing activities. Most of the pellet production from British Columbia is shipped to European countries.

Table 4 shows that 11 pellet mills operated in British Columbia in 2013. It is estimated that the total capacity for these mills was about 1.69 million tonnes of pellets per year based on an operating schedule of three 8-hour shifts per day, 345 days per year.

Mills ran at full capacity, producing about 1.68 million tonnes of pellets in 2013. The fibre used to produce this volume of pellets was about 1.58 million bone dry units, largely in the form of sawdust.

As seen in Figure 17, capacity decreased from the peak of 1.99 million tonnes in 2011 to 1.69 million tonnes in 2013. Figure 18 shows that capacity utilization was highly variable as new mills bringing additional capacity were added to the sector. For example, the capacity utilization rate significantly increased from 68% in 2011 to 99% in 2013.

Table 4: British Columbia Pellet Mill Summary Statistics

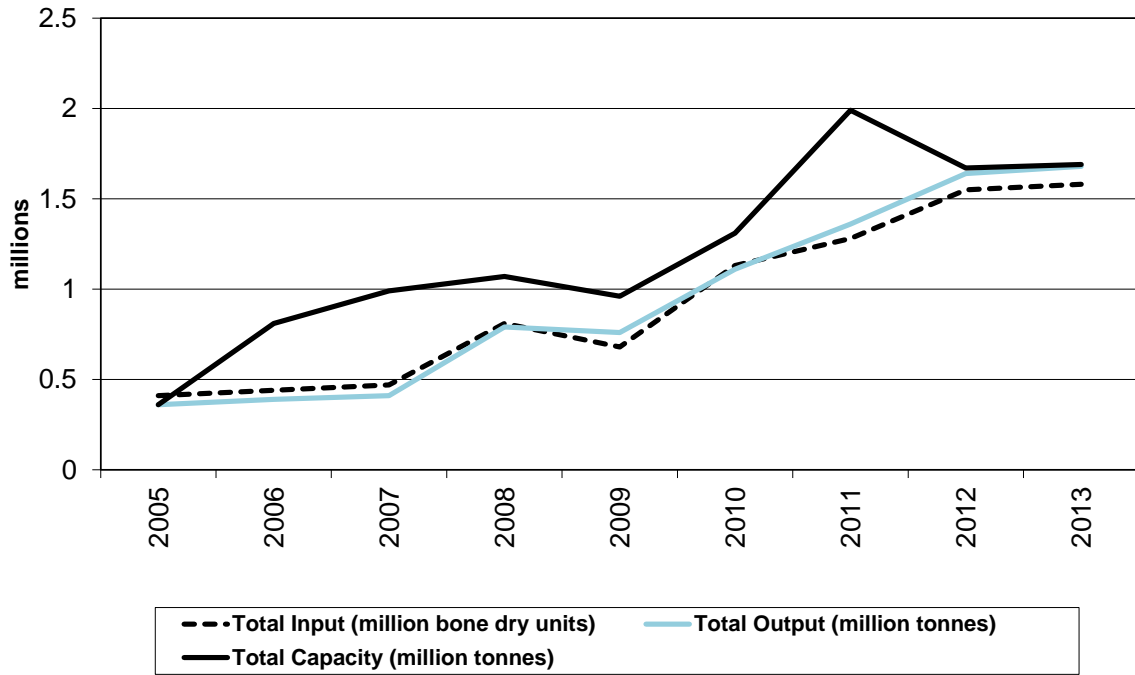
	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change 2005- 2013
Number of Mills	5	8	8	9	9	11	11	11	11	120%
Total Capacity (million tonnes)	0.36	0.81	0.99	1.07	0.96	1.31	1.99	1.67	1.69	369%
Total Output (million tonnes)	0.36	0.39	0.41	0.79	0.76	1.11	1.36	1.64	1.68	367%
Total Input (million bone dry units)	0.41	0.44	0.47	0.81	0.68	1.13	1.28	1.55	1.58	285%
Average Capacity (000s tonnes)	72	101	124	119	107	119	181	152	154	113%
Average Fibre Input (thousand bone dry units per mill)	82	55	59	90	76	103	116	141	144	75%
Capacity Utilization (output divided by capacity)	100%	48%	41%	74%	79%	85%	68%	98%	99%	-1%
Recovery Factor (Tonnes of output per tonne of bone dry input)	0.88	0.89	0.87	0.98	1.12	0.98	1.06	1.06	1.06	21%

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

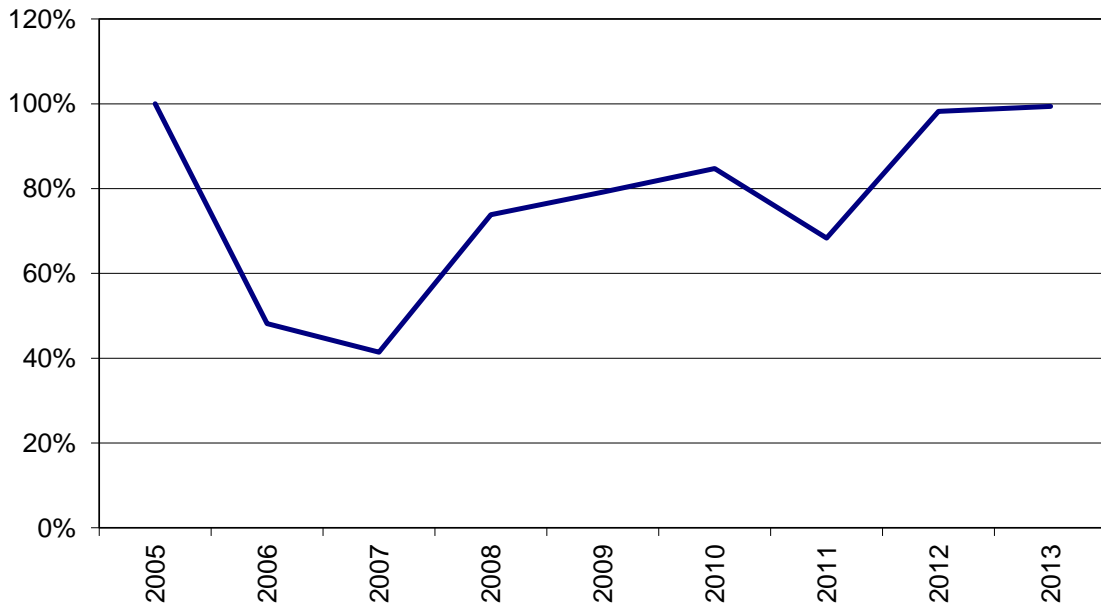
Notes:

Output Capacity is estimated based on three 8 hour shifts, 345 days per year.

**Figure 19: B.C. Pellet Mills
Capacity and Output**



**Figure 20: B.C. Pellet Mills
Capacity Utilization**



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Appendix: List of Mills

Administrative Areas and Natural Resource District Boundaries

Figure 21. Administrative Areas and Natural Resource District Boundaries in 2013



Lumber Mills

(Listed Alphabetically)

Mills producing lumber provided in separate tables, one for those with estimated annual capacity above 40 million board feet of lumber and those below.

Notes:

1. Measurement units are in millions of board 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 21 on page 32).

LUMBER MILLS WITH CAPACITY GREATER THAN 40 MILLION BOARD FEET OF LUMBER IN 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (millions of board feet)
8	Andersen Pacific Forest Products Ltd	Ruskin	Coast	Chilliwack	65
498	Aspen Planers Ltd.	Merritt	South	Cascades	192
252	C & C Wood Products Ltd.	Quesnel	South	Quesnel	41
166	Canadian Forest Products Ltd.	Prince George	North	Prince George	336
64	Canadian Forest Products Ltd.	Vavenby	South	Thompson Rivers	205
193	Canadian Forest Products Ltd.	Houston	North	Nadina	528
130	Canadian Forest Products Ltd.	Mackenzie	North	Mackenzie	330
135	Canadian Forest Products Ltd.	Isle Pierre	North	Prince George	228
160	Canadian Forest Products Ltd.	Bear Lake	North	Prince George	209
90	Canadian Forest Products Ltd.	Radium Hot Sprgs	South	Rocky Mountain	208
140	Canadian Forest Products Ltd.	Engen	North	Vanderhoof	498
127	Canadian Forest Products Ltd.	Chetwynd	North	Peace	77
122	Canadian Forest Products Ltd.	Fort St John	North	Peace	265
110	Canadian Forest Products Ltd.	Quesnel	South	Quesnel	154
82	Canadian Forests Products Ltd.	Elko	South	Rocky Mountain	151
79	Canadian Forests Products Ltd.	Canal Flats	South	Rocky Mountain	161
150	Carrier Lumber Ltd.	Prince George	North	Prince George	178
133	Conifex Timber Inc.	Fort St James	North	Fort St. James	310
129	Conifex Timber Inc.	Mackenzie	North	Mackenzie	192
326	Delta Cedar Products Ltd.	Delta	Coast	Chilliwack	49
45	Downie Timber Ltd.	Revelstoke	South	Selkirk	105
158	Dunkley Lumber Ltd.	Strathnaver	North	Prince George	480
1003	Duz Cho Logging	Mackenzie	North	Mackenzie	65
86	Galloway Lumber Co. Ltd.	Galloway	South	Rocky Mountain	67
66	Gilbert Smith For Prod Ltd.	Barriere	South	Thompson Rivers	56
537	Goldwood Industries Ltd.	Richmond	Coast	Chilliwack	53
14	Gorman Bros Lumber Ltd.	Westbank	South	Okanagan Shuswap	98
30	Interfor Corporation	Grand Forks	South	Selkirk	154
70	International Forest Products Ltd.	Adams Lake	South	Thompson Rivers	360
62	International Forest Products Ltd.	Castlegar	South	Selkirk	185
297	International Forest Products Ltd.	Hammond	Coast	Chilliwack	171
283	International Forest Products Ltd.	Delta	Coast	Chilliwack	134
88	J H Huscroft Ltd.	Erickson	South	Selkirk	60
100	J.S. Jones	Surrey	Coast	Chilliwack	192
50	Kalesnikoff Lumber Co. Ltd.	Thrms	South	Selkirk	203
144	L & M Lumber Ltd.	Vanderhoof	North	Vanderhoof	219
22	Noble Custom Cut Ltd.	Whonnock	Coast	Chilliwack	48
618	North Enderby Timber Ltd.	Enderby	South	Okanagan Shuswap	65
626	Porcupine Wood Products Ltd.	Salmo	South	Selkirk	48
454	S & R Sawmills Ltd.	Surrey	Coast	Chilliwack	320

LUMBER MILLS WITH CAPACITY GREATER THAN 40 MILLION BOARD FEET OF LUMBER IN 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (millions of board feet)
750	Sigurdson Forest Products	Williams Lake	South	Cariboo Chilcotin	72
539	Stag Timber Ltd.	Surrey	Coast	Chilliwack	86.4
540	Terminal Forest Products Ltd.	Richmond	Coast	Chilliwack	244.8
396	Terminal Forest Products Ltd.	Vancouver	Coast	Chilliwack	52.8
68	Tolko Industries Ltd.	Armstrong	South	Okanagan Shuswap	156.96
67	Tolko Industries Ltd.	Kelowna	South	Okanagan Shuswap	200.64
20	Tolko Industries Ltd.	Lavington	South	Okanagan Shuswap	216.96
98	Tolko Industries Ltd.	Quesnel	South	Quesnel	199.2
25	Tolko Industries Ltd.	Merritt	South	Cascades	241.44
107	Tolko Industries Ltd.	Williams Lake	South	Cariboo Chilcotin	199.2
103	Tolko Industries Ltd.	Williams Lake	South	Cariboo Chilcotin	273.6
453	Twin Rivers Cedar Products Ltd.	Ruskin	Coast	Chilliwack	57.6
31	Vaagen Fibre Canada	Midway	South	Selkirk	105.6
532	West Fraser Mills Ltd.	LeJac	North	Vanderhoof	271.68
552	West Fraser Mills Ltd.	Chetwynd	North	Peace	268.8
191	West Fraser Mills Ltd.	Smithers	North	Skeena Stikine	262.08
113	West Fraser Mills Ltd.	Quesnel	South	Quesnel	370.56
530	West Fraser Mills Ltd.	Houston	North	Nadina	250.08
95	West Fraser Mills Ltd.	100 Mile House	South	100 Mile House	192
214	West Fraser Mills Ltd.	Clinton	South	100 Mile House	240
114	West Fraser Mills Ltd.	Williams Lake	South	Cariboo Chilcotin	170.88
442	Western Forest Products	Ladysmith	Coast	South Island	149.76
376	Western Forest Products	Ladysmith	Coast	South Island	175.68
320	Western Forest Products	Cowichan Bay	Coast	South Island	168.48
393	Western Forest Products	Chemainus	Coast	South Island	218.63
528	Western Forest Products	Port Alberni	Coast	South Island	150.24
392	Western Forest Products	Port Alberni	Coast	South Island	75.36
531	Western Forest Products	Nanaimo	Coast	South Island	103.68
29	Weyerhaeuser Company Ltd.	Princeton	South	Cascades	200.64
93	Wynndel Box & Lumber Co. Ltd.	Wynndel	South	Selkirk	81.6

LUMBER MILLS WITH CAPACITY LESS THAN 40 MILLION BOARD FEET OF LUMBER IN 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (millions of board feet)
715	100 Mile Wood Products	100 Mile House	South	100 Mile House	3.8
9	A.J. Forest Products Ltd.	Brackendale	Coast	Sea to Sky	3.1
5	Abfam Enterprises Ltd.	Port Clements	Coast	Haida Gwaii	14.4
990	Alan Hyde Sawmill	Sicamous	South	Okanagan Shuswap	1.0
10	BC Custom Timber Products Ltd.	Vanderhoof	North	Vanderhoof	14.4
643	Bear Lumber Ltd.	Cranbrook	South	Rocky Mountain	3.8
905	Blacktail Enterprises	Black Creek	Coast	Campbell River	0.5
986	Brasier Mill	Masset	Coast	Haida Gwaii	0.5
987	Cambie Cedar Products Ltd.	Sicamous	South	Okanagan Shuswap	10.1
983	Colborne Lumber	Clearwater	South	Thompson Rivers	0.8
117	Continental Pole Ltd.	Pemberton	Coast	Sea to Sky	1.9
377	Coulson Manufacturing Ltd	Port Alberni	Coast	South Island	28.0
989	Deacoff Bros. Enterprises Ltd.	Kelowna	South	Okanagan Shuswap	N/A
741	Dove Creek Timber Corp.	Courtenay	Coast	Campbell River	11.2
717	Edgegrain	Woss	Coast	North Island - Central Coast	1.2
301	Errington Cedar Products Ltd.	Errington	Coast	South Island	16.7
714	Franklin Forest Products Ltd.	Port Alberni	Coast	South Island	24.0
679	G.C. Williams Milling	Malcolm Island	Coast	North Island - Central Coast	1.9
32	Gibbs Custom Sawmill	McBride	North	Prince George	1.2
957	Gold Island Forest Products Ltd.	Slocan	South	Selkirk	16.8
567	Green Forest Products Ltd.	Merville	Coast	Campbell River	0.7
975	Harold Turner	Pritchard	South	Thompson Rivers	0.8
172	Hauer Bros. Lumber Ltd.	Tete Jaune Cache	North	Prince George	0.4
512	Jemico Enterprises Ltd.	Chemainus	Coast	South Island	16.8
47	Joe Kozek Sawmills Ltd.	Revelstoke	South	Selkirk	14.4
743	John Salo	Sointula	Coast	North Island - Central Coast	1.0
495	Ken K. Foote Contracting (2008)Ltd.	Sandspit	Coast	Haida Gwaii	0.5
184	Kitwanga Forest Product	Kitwanga	North	Skeena Stikine	28.8
597	Lakeside Timber (2007) Ltd.	Tappen	South	Okanagan Shuswap	24.0
255	Larry Buff Sawmills Ltd.	Westwold	South	Okanagan Shuswap	12.0
998	Les Saverella Contracting	McBride	North	Prince George	N/A
702	Linde Bros Lumber Ltd.	Williams Lake	South	Cariboo Chilcotin	0.0
399	Lois Lumber Ltd	Lang Bay	Coast	Sunshine Coast	N/A
712	Long Hoh Enterprises Canada Ltd	Qualicum Beach	Coast	South Island	35.5
197	McDonald Ranch & Lumber Ltd	Grasmere	South	Rocky Mountain	2.9
194	Mike Gogo Cedar Products	Nanaimo	Coast	South Island	1.2
985	Moonlight Milling	Sandspit	Coast	Haida Gwaii	0.3

LUMBER MILLS WITH CAPACITY LESS THAN 40 MILLION BOARD FEET OF LUMBER IN 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (millions of board feet)
974	Murray Kane Site 6LW	Clinton	South	100 Mile House	0.5
408	Nagaard Sawmills Ltd.	Port Alberni	Coast	South Island	12.0
199	North Star Planing Co. Ltd.	Athalmer	South	Rocky Mountain	3.8
988	Northern Log & Timber	Winfield	South	Okanagan Shuswap	1.0
732	PG Sort Yard	Prince George	North	Prince George	9.6
582	Quadra Island Forest Products Ltd.	Quadra Island	Coast	Campbell River	2.9
183	ROC Holdings	Terrace	North	Coast Mountain	0.0
271	Rouck Brothers Sawmill Ltd.	Lumby	South	Okanagan Shuswap	N/A
23	Shannon Lumber	Mission	Coast	Chilliwack	7.2
917	Sheraton Holdings Ltd.	Burns Lake	North	Nadina	12.0
982	Silver Dew Hardwoods	Clearwater	South	Thompson Rivers	0.4
654	Spike Top Cedar Ltd.	Port Hardy	Coast	North Island - Central Coast	1.0
24	Suncoast Lumber and Milling	Sechelt	Coast	Sunshine Coast	9.1
991	T & N Custom Sawmill	Enderby	South	Okanagan Shuswap	1.4
602	T.L. Timber Ltd.	Cawston	South	Okanagan Shuswap	17.3
96	Thomson Bros. Lumber Co. Ltd.	Courtenay	Coast	Campbell River	4.8
993	Treeco Timber Corporation	Prince George	North	Prince George	1.0
99	Ukass Logging Ltd.	Wilmer Creek	South	Rocky Mountain	2.9
229	Wadlegger Log & Constr. Co.	Raft River	South	Thompson Rivers	3.4
546	Western Forest Products	Duke Point	Coast	South Island	10.1

Pulp and Paper Mills

(Listed Alphabetically)

Mills producing pulp and paper 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.

Notes:

1. Measurement units are in thousands of tonnes.
2. 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.
3. Administrative areas and natural resource districts were applied (see Figure 21 on page 32).

PULP AND PAPER MILLS - 2013

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity (000s of tonnes)
503	Canadian Forest Products Ltd.	Prince George	PLP	North	Prince George	549
960	Canadian Forest Products Ltd.	Prince George	PLP	North	Prince George	285
335	Canadian Forest Products Ltd.	Taylor	PLP	North	Peace	209
500	Canfor Pulp Ltd.	Prince George	PLP	North	Prince George	149
497	Cariboo Pulp & Paper Co. Ltd.	Quesnel	PLP	South	Quesnel	323
487	Catalyst Paper	Port Alberni	PLP	Coast	South Island	195
486	Catalyst Paper	Powell River	PLP	Coast	Sunshine Coast	342
483	Catalyst Paper	Crofton	PLP	Coast	South Island	648
2	Domtar	Kamloops	PLP	South	Thompson Rivers	444
484	Howe Sound Pulp & Paper Corporation	Port Mellon	PLP	Coast	Sunshine Coast	581
488	Nanaimo Forest Products	Cedar	PLP	Coast	South Island	345
489	Neucel Specialty Cellulose	Port Alice	PLP	Coast	North Island - Central Coast	151
505	Paper Excellence BV.	Mackenzie	PLP	North	Mackenzie	180
553	Quesnel River Pulp Company	Quesnel	PLP	South	Quesnel	377
1	Skookumchuck Pulp Inc	Skookumchuk	PLP	South	Rocky Mountain	227
501	Zellstoff Celgar Limited Partnership	Castlegar	PLP	South	Selkirk	479
500	Canadian Forest Products Ltd.	Prince George	PPR	North	Prince George	131
487	Catalyst Paper	Port Alberni	PPR	Coast	South Island	301
486	Catalyst Paper	Powell River	PPR	Coast	Sunshine Coast	412
483	Catalyst Paper	Crofton	PPR	Coast	South Island	301
484	Howe Sound Pulp & Paper Corporation	Port Mellon	PPR	Coast	Sunshine Coast	204
491	Kruger Products Ltd.	New Westminster	PPR	Coast	Chilliwack	55

Veneer, Plywood, OSB and Other Panel Mills

(Listed Alphabetically by product)

Mills producing veneer, plywood and other types of panel 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.

Notes:

1. Measurement units are in millions of square feet, 3/8" basis (mill. sq. ft., 3/8").
2. Estimated annual capacity for veneer mills is based on a standardized operation of 240 days per year, two 8-hour shifts per day. For plywood mills, estimated annual capacity is based on a standardized operation of 240 days per year, three 8 hour shifts per day. For OSB and other Panel mills, 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.
3. Administrative areas and natural resource districts were applied (see Figure 21 on page 32).

VENEER, PLYWOOD, OSB AND OTHER PANEL MILLS - 2013

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity (million sq. ft, 3/8" basis)
411	Ainsworth Lumber Co. Ltd.	100 Mile House	OSB	South	100 Mile House	424
942	Peace Valley OSB	Fort St John	OSB	North	Peace	849
650	Louisiana Pacific Canada Ltd.	Dawson Creek	OSB	North	Peace	466
105	West Fraser Mills Ltd.	Williams Lake	PLY	South	Cariboo Chilcotin	194
84	Louisiana Pacific Canada Ltd.	Golden	PLY	South	Selkirk	121
112	West Fraser Mills Ltd.	Quesnel	PLY	South	Quesnel	209
394	Tolko Industries Ltd.	Heffley Creek	PLY	South	Thompson Rivers	193
68	Tolko Industries Ltd.	Armstrong	PLY	South	Okanagan Shuswap	270
12	Canoe Forest Products Ltd.	Canoe	PLY	South	Okanagan Shuswap	143
478	Richmond Plywood Corp. Ltd.	Richmond	PLY	Coast	Chilliwack	190
113	West Fraser Mills Ltd.	Quesnel	PNL	South	Quesnel	190
357	Northern Engineering Wood Products Inc.	Smithers	PNL	North	Skeena Stikine	94
244	Coastland Wood Industries Ltd.	Nanaimo	VNR	Coast	South Island	228
68	Tolko Industries Ltd.	Armstrong	VNR	South	Okanagan Shuswap	129
51	Atco Wood Products	Fruitvale	VNR	South	Selkirk	116
35	Tolko Industries Ltd.	Lumby	VNR	South	Okanagan Shuswap	184
84	Louisiana Pacific Canada Ltd.	Golden	VNR	South	Selkirk	105
112	West Fraser Mills Ltd.	Quesnel	VNR	South	Quesnel	165
394	Tolko Industries Ltd.	Heffley Creek	VNR	South	Thompson Rivers	165
982	Silver Dew Hardwoods	Clearwater	VNR	South	Thompson Rivers	N/A
105	West Fraser Mills Ltd.	Williams Lake	VNR	South	Cariboo Chilcotin	N/A
115	Aspen Planers Ltd.	Lillooet	VNR	South	Cascades	125
508	CIPA Lumber Co. Ltd.	Annacis Island	VNR	Coast	Chilliwack	216
34	B C Veneer Products Ltd	Surrey	VNR	Coast	Chilliwack	1
478	Richmond Plywood Corp. Ltd.	Richmond	VNR	Coast	Chilliwack	134
12	Canoe Forest Products Ltd.	Canoe	VNR	South	Okanagan Shuswap	123

Chip Mills

(Listed Alphabetically)

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

Notes:

1. Measurement units are in thousands of bone dry units (000 BDUs).
2. 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.
3. Administrative areas and natural resource districts were applied (see Figure 21 on page 32).

CHIP MILLS - 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity (000s of BDUs)
937	Pacific Fibre	Port Mellon	Coast	Sunshine Coast	200
409	Howe Sound Pulp & Paper Ltd.	Vancouver	Coast	Chilliwack	202
1002	BC Ecochips Ltd	Okanagan Falls	South	Okanagan Shuswap	147
356	East Fraser Fibre Co Ltd.	Mackenzie	North	Mackenzie	240
1000	Ledcor	Chilliwack	Coast	Chilliwack	119
166	Canadian Forest Products Ltd.	Prince George	North	Prince George	441
394	Tolko Industries Ltd.	Heffley Creek	South	Thompson Rivers	240
113	West Fraser Mills Ltd.	Quesnel	South	Quesnel	278
1001	Valiant Log Sort Ltd.	Port Coquitlam	Coast	Chilliwack	N/A
924	Chips Ahoy Fibre Supply	Mission	Coast	Chilliwack	112
1002	BC Ecochips Ltd	Okanagan Falls	South	Okanagan Shuswap	147
345	DCT Chambers Trucking Ltd.	Chemainus	Coast	South Island	194

Pellet Mills

(Listed Alphabetically)

Mills producing wood pellets for bio-energy are listed in this section.

Notes:

1. Measurement units are in thousands of tonnes.
2. Estimated annual capacity for 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.
3. Administrative areas and natural resource districts were applied (see Figure 21 on page 32).

PELLET MILLS - 2013

Mill Number	Company	Location of Mill	Administrative Area	Natural Resource District	Estimated Annual Capacity ('000s of tonnes)
935	Okanagan Pellet Company	Westbank	South	Okanagan Shuswap	66
930	Pacific BioEnergy	Prince George	North	Prince George	312
929	Pinnacle Renewable Energy Group	Armstrong	South	Okanagan Shuswap	62
980	Pinnacle Renewable Energy Group	Burns Lake	North	Nadina	273
947	Pinnacle Renewable Energy Group	Houston	North	Nadina	195
976	Pinnacle Renewable Energy Group	Strathnaver	North	Prince George	160
931	Pinnacle Renewable Energy Group	Quesnel	South	Quesnel	84
948	Pinnacle Renewable Energy Group	Williams Lake	South	Cariboo Chilcotin	181
932	Premium Pellet Ltd.	Vanderhoof	North	Vanderhoof	169
933	Princeton Co-Generation Corp	Princeton	South	Cascades	107
995	Vanderhoof Specialty Wood Products	Vanderhoof	North	Vanderhoof	77

Pole and Post Mills

(Listed Alphabetically by Pole type)

Mills producing poles and posts are listed in this section.

Notes:

1. Measurement units are in thousands of pieces ('000 pcs).
2. 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.
3. Administrative areas and natural resource districts were applied (see Figure 21 on page 32).

TYPES OF POLE MILLS - 2013

Mill Number	Company	Location of Mill	Product	Administrative Area	Natural Resource District	Estimated Annual Capacity ('000s of pieces)
498	Aspen Planers Ltd.	Merritt	PLE	South	Cascades	960
117	Continental Pole Ltd.	Pemberton	PLE	Coast	Sea to Sky	12
390	Box Lake Lumber Prod Ltd	Nakusp	PST	South	Selkirk	480
997	Cedar 3 Products (R3 91 Enterprises L McBride		PST	North	Prince George	288
970	KDL Group - Northern Forest Products	Fort St James	PST	North	Fort St. James	N/A
250	Nicola Post and Rail Ltd.	Merritt	PST	South	Cascades	60
279	Palmer Bar Holdings Inc.	Lumberton	PST	South	Rocky Mountain	864
739	Panhandle Forest Products	Lumberton	PST	South	Rocky Mountain	N/A
237	Princeton Post and Rail Co. Ltd.	Princeton	PST	South	Cascades	480
659	Brisco Wood Preservers Ltd.	Brisco	UTI	South	Rocky Mountain	20
556	Chinook Forest Products Ltd.	Courtenay	UTI	Coast	Campbell River	20
40	Gorman Bros Lumber Ltd.	Lumby	UTI	South	Okanagan Shuswap	40
181	Hampton Affiliates Ltd.	Burns Lake	UTI	North	Nadina	14
724	Integrated Pole	100 Mile House	UTI	South	100 Mile House	11
725	O'Brien & Fuerst Logging Ltd.	Port Clements	UTI	Coast	Haida Gwaii	5
999	Otter Point Timber Ltd.	Ladysmith	UTI	Coast	South Island	14
677	Pacific Inland Pole & Piling Ltd.	Nakusp	UTI	South	Selkirk	29
188	Paterson Pole Ltd.	Rossland	UTI	South	Selkirk	6
232	Princeton Wood Preservers Ltd	Princeton	UTI	South	Cascades	20
648	Selkirk Forest Products Ltd.	Galloway	UTI	South	Rocky Mountain	84
728	Sierra Cascade Resources II L.L.C.	Port McNeill	UTI	Coast	North Island - Central Coast	N/A
729	Sierra Cascade Resources II L.L.C.	Kelsey Bay	UTI	Coast	Campbell River	N/A
48	Stella Jones Canada Inc.	Revelstoke	UTI	South	Selkirk	54
222	Stella-Jones Canada Inc.	Haney	UTI	Coast	Chilliwack	19