# Major Primary Timber Processing Facilities in British Columbia

## 2011

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

February 2014

## Foreword

This edition of the *Major Primary Timber Processing Facilities in British Columbia* summarizes timber processing mills that operated during 2011. 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 2011 and earlier surveys of individual processing mills. The 2010[1] and 2011 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, Northern Interior and Southern Interior regions/areas referred to in this report are the former administrative areas called Forest Regions, which were in effect at the time the survey was initiated. These were replaced in 2011 with three administrative "Areas" that have a few different boundaries. The information in this report is generally applicable to the new Areas. Similarly, historical forest districts were used 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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V8W 9C2

[1] A separate 2010 report will not be published.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 Jim Johnston and conducted by Jim Johnston, Alex Barnes, Judith Elkins and Alex Love. Final compilation was done by Tim Bogle.

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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 2011 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 and mail surveys were sent to mill operators, followed by up to two 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, 2011

Figure 1 shows the estimated primary log use was approximately 61.4 million cubic metres in 2011, up from 48.2 million cubic metres reported in 2009 and 13 million cubic metres below the 2007 level of 74.6 million cubic metres. Log supply exceeded log use by about 8 million cubic metres. There are several possible factors contributing to this difference. One possibility is that some facilities were not sampled or that log inputs were not accurate. Another factor is 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. In 2011, cruise-based billing was used for 47% of the harvest volume in the Interior and 7% on the Coast. Another potential contributor to the difference is mill log inventories. With reduced demand for lumber in 2009, many mills were running minimal log inventories. As demand increased, mills began to rebuild log inventories to normal levels, scaling more volume than needed in the mill.

Lumber mills accounted for an estimated 72.4% of the total primary log use in 2011. While log use increased and some mills curtailed in 2009 restarted normal operations, the number of lumber mills operating in 2011 was 132, below the 153 mills operating in 2008. Provincial log exports rose from 5% in 2009 to 8.9% of primary log use in 2011. Coastal log exports almost doubled from 15.6% in 2009 to 27.4% in 2011. Veneer and OSB mills accounted for 8.6% of primary log use while chip mills and pulp mill wood rooms[2] accounted for 8.1% 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.

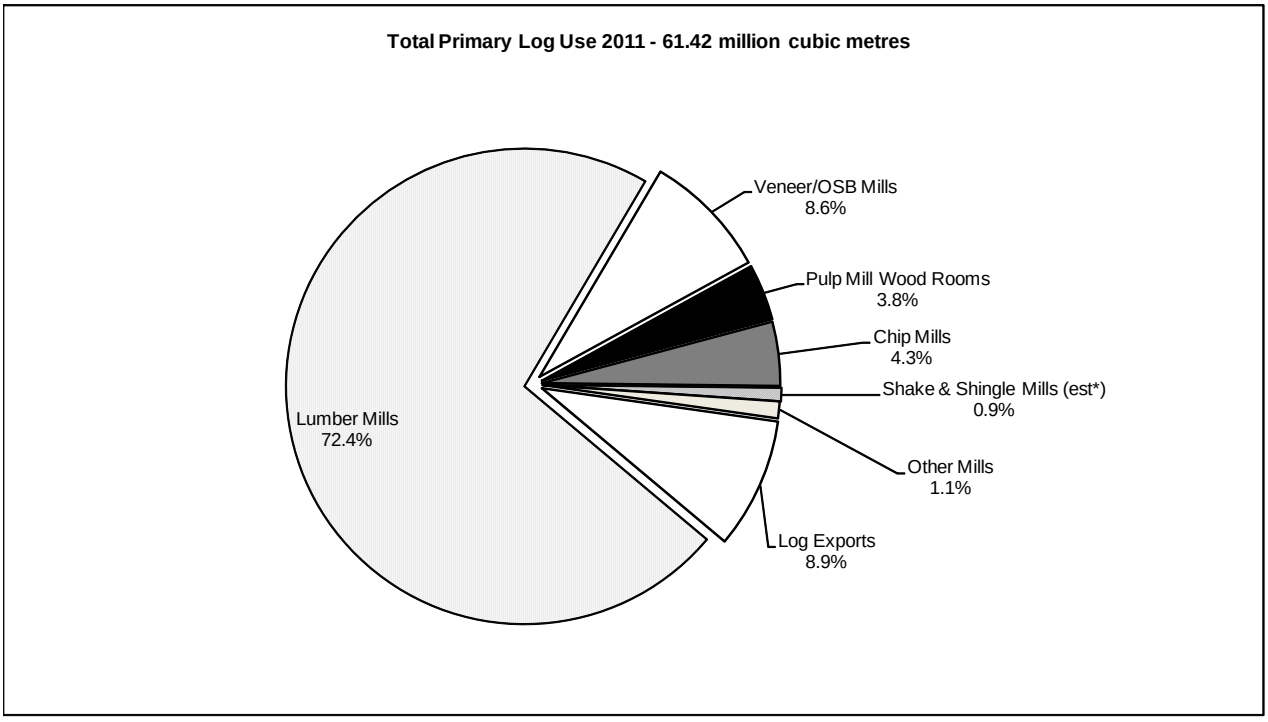
**Figure 1: Estimated British Columbia Primary Log Use - 2011**

| | 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 | 49 | 6,712 | 40.5% | 83 | 37,732 | 84.1% | 132 | 44,444 | 72.4% |
| Veneer/OSB Mills | 4 | 1,661 | 10.0% | 12 | 3,593 | 8.0% | 16 | 5,254 | 8.6% |
| Pulp Mill Wood Rooms | 3 | 1,149 | 6.9% | 3 | 1,194 | 2.7% | 6 | 2,343 | 3.8% |
| Chip Mills | 6 | 1,873 | 11.3% | 4 | 793 | 1.8% | 10 | 2,666 | 4.3% |
| Shake & Shingle Mills (est*) | 23 | 553 | 3.3% | 3 | 6 | 0.0% | 26 | 559 | 0.9% |
| Other Mills | 11 | 78 | 0.5% | 46 | 625 | 1.4% | 57 | 703 | 1.1% |
| Log Exports | | 4,529 | 27.4% | | 921 | 2.1% | | 5,450 | 8.9% |
| **TOTAL** | 96 | 16,555 | 100% | 151 | 44,864 | 100% | 247 | **61,419** | 100% |
| **Log Availability** | | | | | | | | | |
| Total Harvest** | | 19,395 | | | 50,160 | | | 69,556 | |
| Log Imports | | | | | | | | 95 | |
| **TOTAL** | | | | | | | | **69,651** | |
| Difference | | 2,840 | 14.6%*** | | 5,296 | 10.6%*** | | 8,232 | ***11.8%**** |

* Estimate: 2008 values for shake and shingle mills are adjusted using known closures as of 2011

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

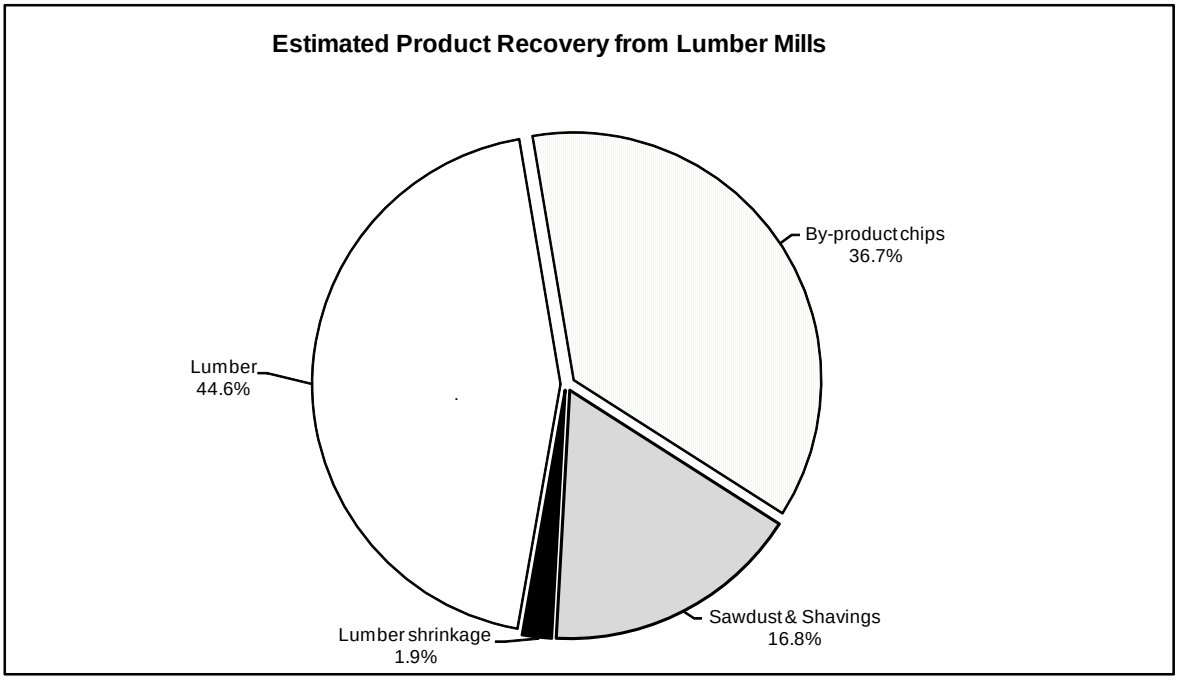
***In 2011, cruise-based sales represented about 47% of volume-billed in the Interior and 7% on the Coast. There is no waste assessment on cruise-based sales which explains much of the difference between apparent log availability and log use in the Interior where harvest was concentrated in stands containing 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 2011.

## Figure 2: Estimates of Product Recovery from Lumber Mills - 2011

| | Units | Coast | Interior | Province |
|---|---|---|---|---|
| **Number of Mills** | | 49 | 83 | 132 |
| **Log Input** | (million $m^3$) | 6.71 | 37.73 | 44.44 |
| **Lumber Output** | | | | |
| Lumber Output (nominal measure) | (mmfbm) | 1.40 | 10.50 | 11.90 |
| Lumber Recovery Factor | (mfbm/$m^3$) | 0.209 | 0.278 | 0.268 |
| Conversion Factor * | ($m^3$/mfbm) | 2.07 | 1.61 | 1.66 |
| = Actual Volume of Lumber Produced | (million $m^3$) | 2.90 | 16.91 | 19.80 |
| As Per Cent of Log Input | (%) | 43.2% | 44.8% | 44.6% |
| **Lumber Shrinkage** | | | | |
| Shrinkage (5% of lumber production) | ('000 $m^3$) | - | 0.85 | 0.85 |
| As Per Cent of Log Input | (%) | 0% | 2% | 2% |
| **By Product Chip Output (from Lumber Mills)** | | | | |
| By Product Chip Output | (million bdu) | 0.80 | 5.10 | 5.90 |
| By Product Chip Recovery Factor | (bdu/'000 $m^3$) | 119 | 135 | 133 |
| Conversion Factor* | ($m^3$/bdu) | 2.86 | 2.75 | 2.76 |
| = Volume of Chips Produced | (million $m^3$) | 2.29 | 14.03 | 16.31 |
| As Per Cent of Log Input | (%) | 34.1% | 37.2% | 36.7% |
| **Sawdust and Shavings - Estimated Volume** | (million $m^3$) | 1.53 | 5.96 | 7.48 |
| As Per Cent of Log Input | (%) | 22.7% | 15.8% | 16.8% |




Notes:

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

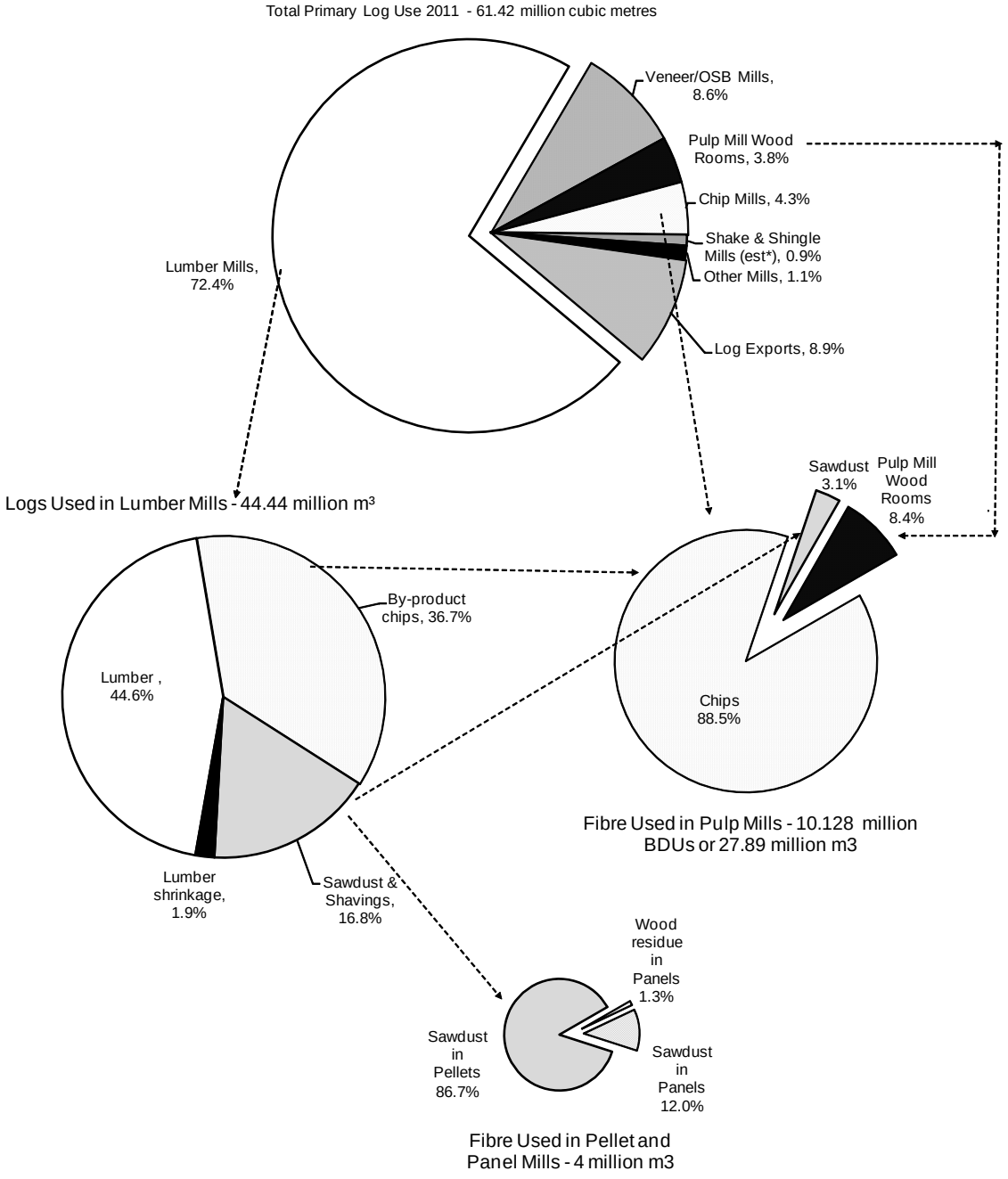
mmfbm = million board feet; mfbm = thousand board feet; $m^3$ = cubic metres; bdu = bone dry unit = 2400 pounds.

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 44.6% of the volume of wood entering lumber mills was converted to lumber, 1.9% was lost through lumber shrinkage, and the remaining 53.5% was converted to chips, 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 2011, pulp mills are estimated to have used 27.89 million cubic metres in solid wood equivalents. Over 91% of the fibre used by pulp mills in 2011 was in the form of chips and sawdust obtained from other mills, while 8.4% was from logs chipped in the pulp mill. Fibre use in pellet and panel mills in 2011 was 4.0 million cubic metres in solid wood equivalents, an increase of 100% from the 2009 level, primarily due to increased pellet production in the Interior. This accounts for 65 per cent 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 - 2011**

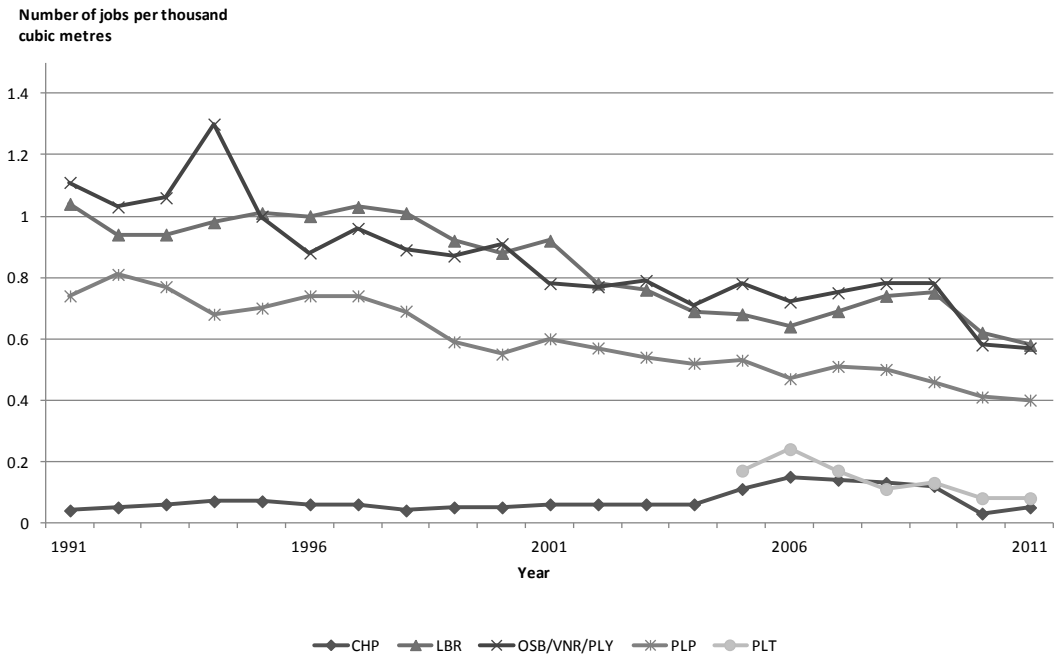


## Productivity

Productivity measures are important economic indicators of the efficiency of operations. Labour productivity appears to have increased substantially over the past decade. As shown in Figure 4 below, the result is that employment per thousand cubic metres of product in solid wood equivalents (i.e., cubic metres of solid product) has decreased. This increased efficiency was reversed slightly for lumber mills 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. The chip and pellet mills require the fewest jobs to create product.

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.

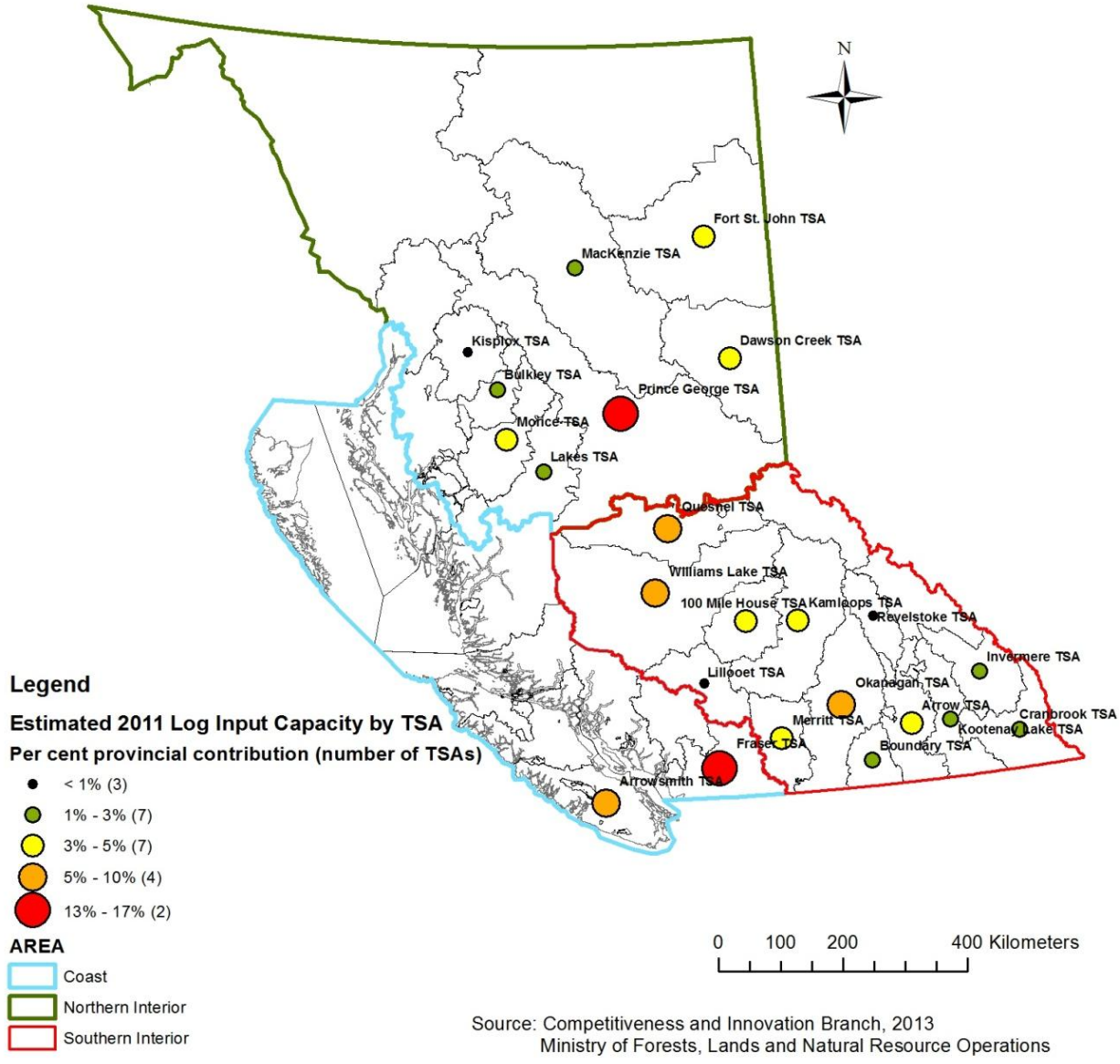
**Figure 4: Employment per 000 m3 of production - 2011**



## 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 TSA, for mills producing at least 40 million board feet per year. The provincial operating mill log input capacity in 2011 for these mills was 57.6 million cubic metres, representing 95% of the provincial LBR/VNR/OSB/LVL mill capacity, up from just under 54 million cubic metres in 2009. Log input for these mills was 48.4 million cubic metres in 2011.

**Figure 5: Provincial Log Input Capacity by Timber Supply Area in 2011**[3]




[3] Contribution by TSA for mills producing 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

There were 132 lumber mills operating in B.C. in 2011. Figure 6 shows the distribution of lumber mills by mill size, for the Coast, Northern Interior and Southern Interior. For reporting purposes, mills are categorized into four 100 million board feet classes, producing 4 size classes, namely small, medium, large and very large. Both the Coast and Southern Interior had over 30 small mills, while the Northern Interior had only five small mills. The Northern and Southern Interior both had three very large mills. Most of the output in the Northern Interior was processed by large mills in the 200-300 million board feet per year class, while it was the medium class that produced most of the lumber for the other two regions.

**Figure 6: Regional Distribution Of British Columbia Lumber Mills By Size - 2011**

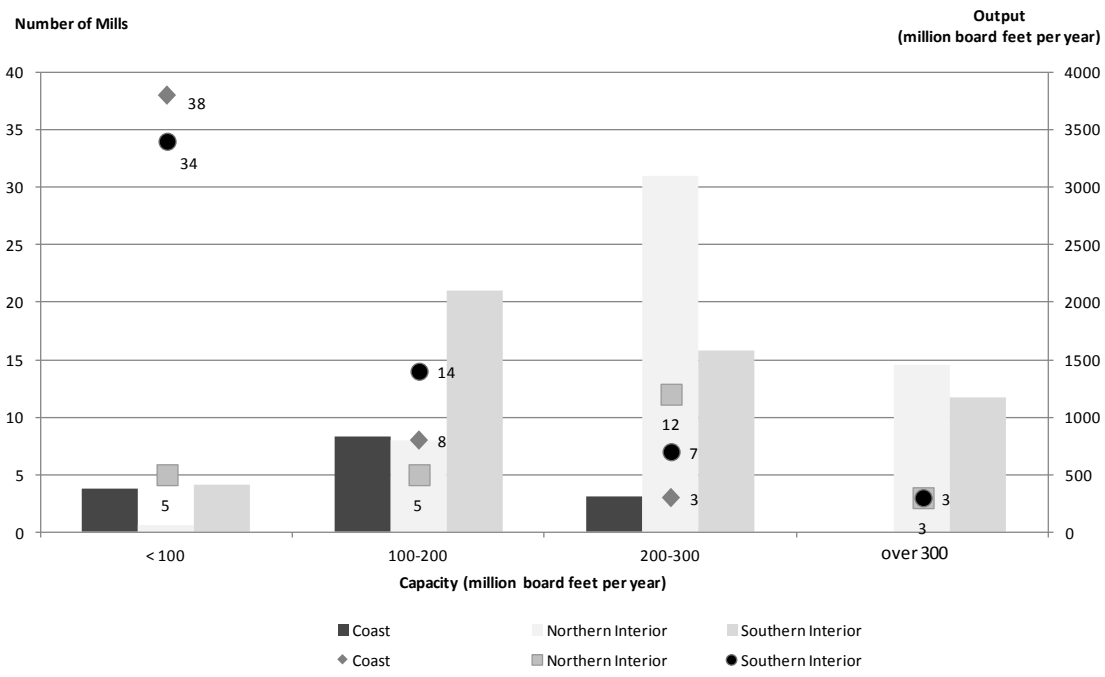


Table 1 shows detailed statistics for the larger of the small mills (at least 40 million board feet per year) as well as the medium, large and very large sawmills in B.C. from 1990 to 2011.[4] In 2011, there were 21 mills on the Coast and 56 in the Interior for a total of 77 mills. Figures 7a and 7b show the total log input, total lumber output and capacity for mills in the Coast and Interior respectively. Coastal capacity remained stable over 2010 and 2011 while in the Interior the capacity increased by 0.7 billion board feet between 2010 and 2011.

As seen in Table 1, as well as Figure 8, the number of operating lumber mills increased slightly since the low in 2009, with a small reduction in average capacity in the Interior. Average capacity was higher in the Interior than on the Coast. The increasing gap between regions observed in 2009 subsided slightly, with average capacity stabilizing on the Coast and declining slightly in the Interior.

Figure 9 shows that capacity utilization rebounded significantly in recent years in the Interior, to 95 per cent, but remained roughly at the 2009 level of 55-56 per cent over 2010 and 2011 in the Coast region.

From Figure 10, the lumber recovery factor (LRF) in the Interior increased slightly over previous years, while on the Coast, the LRF declined to a level not seen since 2001. The Coastal decline was accentuated by the temporary curtailment of mills with lower than average lumber recovery during market challenges in 2009, leading to an increase in aggregate LRF for that year.

[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 55 mills in this group processed 2.6% of the 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 | % change 1990-2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COAST** | | | | | | | | | | | | |
| Number of Mills | | 43 | 38 | 36 | 29 | 24 | 24 | 21 | 19 | 21 | 21 | -51% |
| 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 | -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 | -63% |
| 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 | -63% |
| Average Capacity | million board feet per mill per year | 99 | 100 | 111 | 117 | 114 | 111 | 114 | 116 | 119 | 119 | 21% |
| Capacity Utilization | output divided by capacity | 89% | 88% | 77% | 76% | 89% | 65% | 63% | 55% | 56% | 56% | -37% |
| 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 | 1% |
| **INTERIOR** | | | | | | | | | | | | |
| Number of Mills | | 88 | 83 | 77 | 71 | 72 | 72 | 62 | 53 | 52 | 56 | -36% |
| 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 | 4% |
| 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 | 5% |
| 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 | -12% |
| Average Capacity | million board feet per mill per year | 121 | 124 | 139 | 180 | 177 | 172 | 182 | 202 | 200 | 198 | 63% |
| Capacity Utilization | output divided by capacity | 93% | 97% | 99% | 111% | 111% | 107% | 86% | 74% | 91% | 95% | 1% |
| 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 | 20% |
| **PROVINCE** | | | | | | | | | | | | |
| Number of Mills | | 131 | 121 | 113 | 100 | 96 | 96 | 83 | 72 | 73 | 77 | -41% |
| 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 | -9% |
| 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 | -13% |
| 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 | -27% |
| Average Capacity | million board feet per mill per year | 114 | 117 | 130 | 162 | 162 | 157 | 165 | 179 | 177 | 177 | 55% |
| Capacity Utilization | output divided by capacity | 92% | 94% | 93% | 103% | 107% | 100% | 82% | 71% | 84% | 88% | -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 | 19% |

**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**

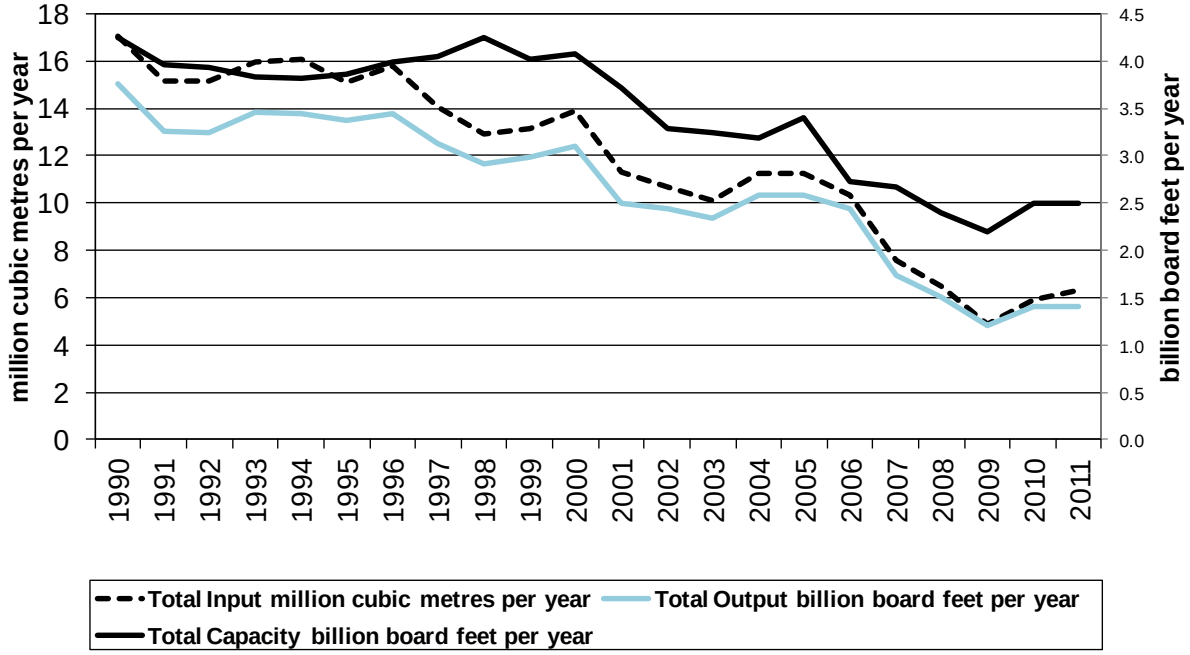



**Figure 7b: B.C. Lumber Mills (at least 40 million board feet)**
**Interior Capacity, Output and Log Input**

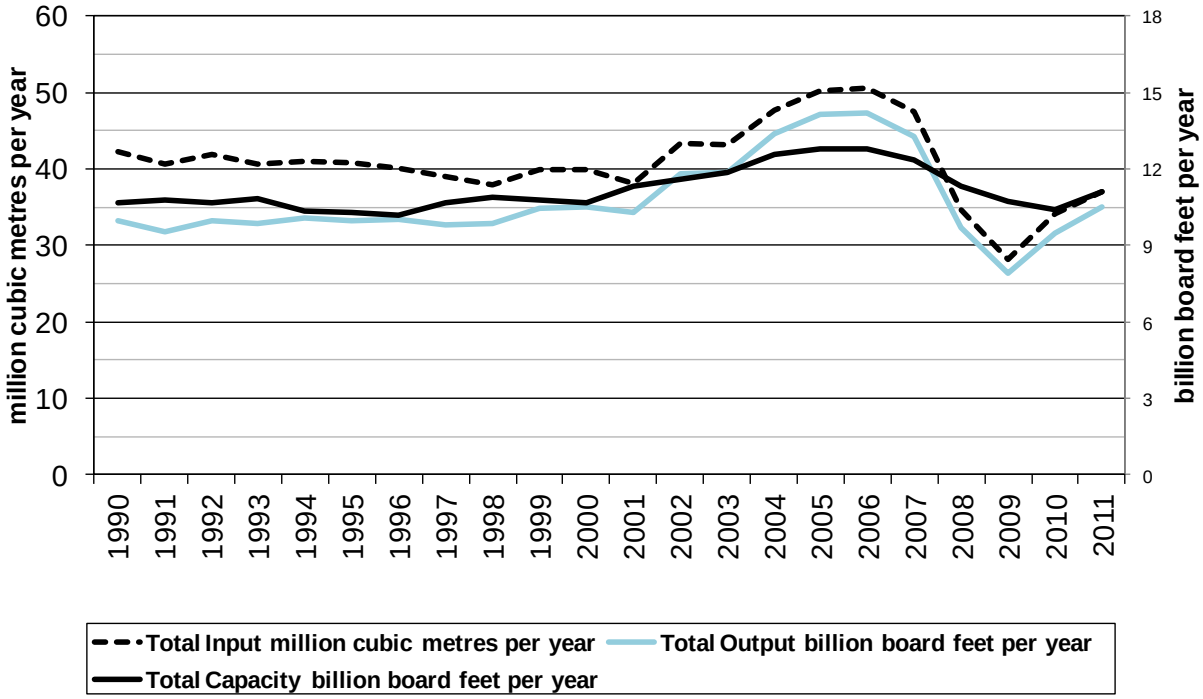


**Figure 8: B.C. Lumber Mills (at least 40 million board feet)**
**Number of Mills and Average Capacity**

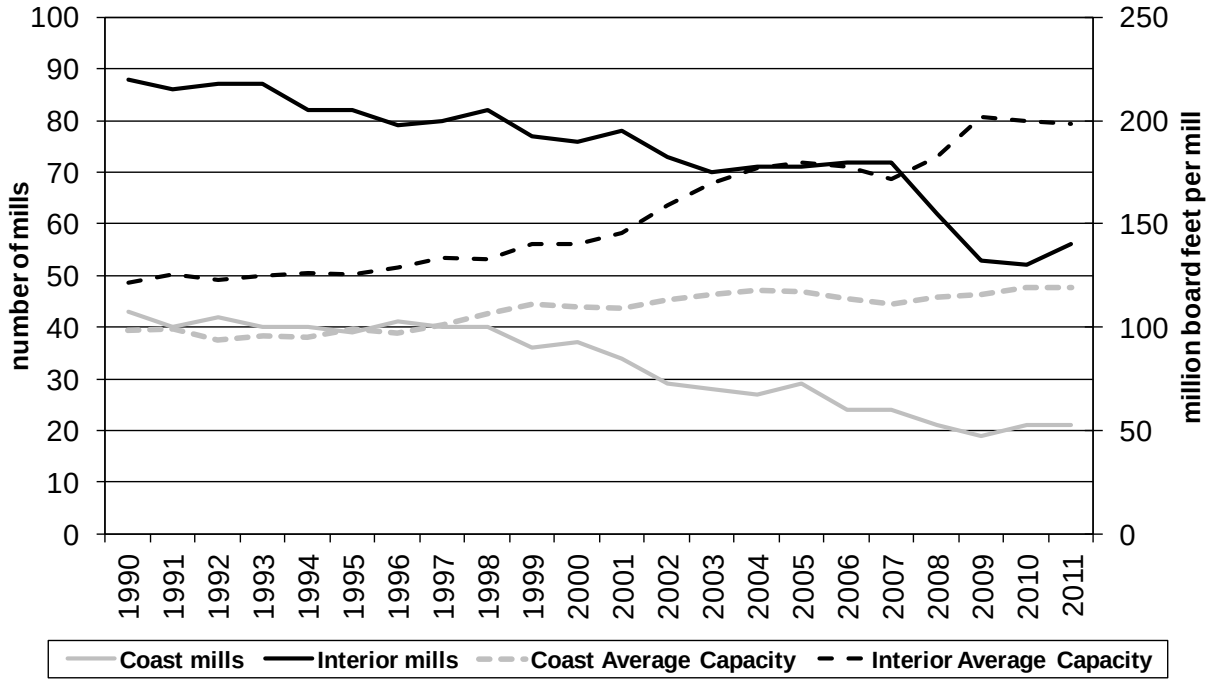



**Figure 9: B.C. Lumber Mills (at least 40 million board feet)**
**Capacity Utilization**

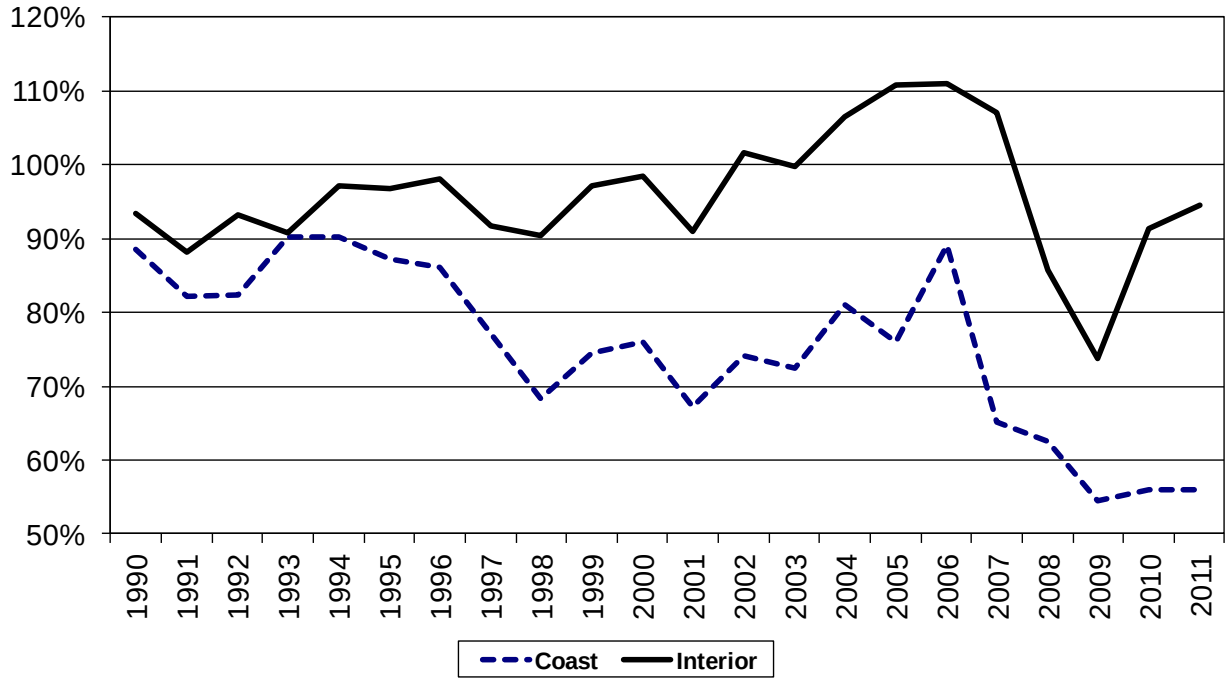
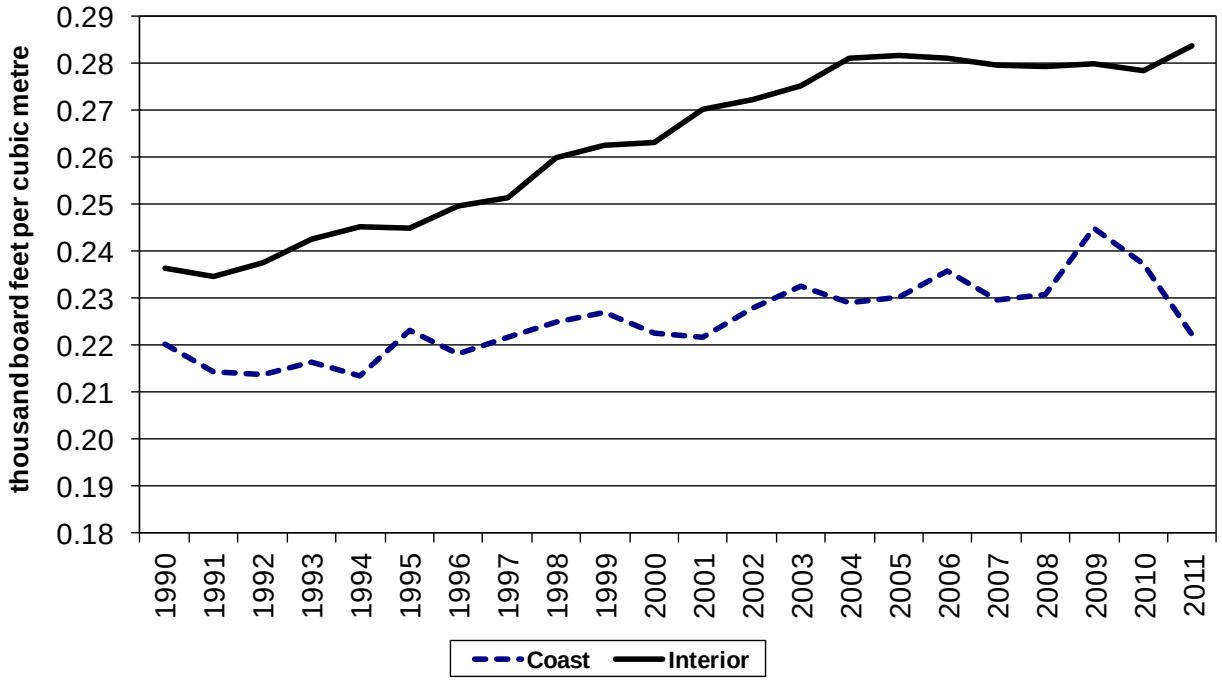


**Figure 10: B.C. Lumber Mills (at least 40 million board feet)**
**Lumber Recovery Factor**



## 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. Eight veneer mills in British Columbia have a plywood mill on the same site, whereas 3 mills produce “market veneer” for sale to plywood and other types of mills.

Table 2 gives a provincial overview of veneer mill statistics for 1990-2011. These statistics show 11 veneer mills operating in British Columbia in 2011, 3 on the Coast and 8 in the Interior. Figure 11 shows that total veneer capacity and output remained stable around 2 billion square feet (3/8” basis) since 2009, despite the net loss of one mill between 2009 and 2011. Average capacity continued to increase in 2011 (Figure 12).

Figure 13 shows that between 2002 and 2006, an additional shift was possible, hence capacity utilization nearing or exceeding 130%. In 2011, operations were nearing normal capacity. Figure 14 shows that the average recovery factor steadily declined from 2004 to 2010 but increased in 2011.

**Table 2: British Columbia Veneer Mill Summary Statistics**

| | | 1990… | 1995… | 2000... | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | % change 1990-2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Mills | | 20 | 17 | 16 | 17 | 16 | 15 | 13 | 12 | 10 | 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 | 1.8 | 2.1 | 0% |
| 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 | -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 | -14% |
| Average Capacity | (million square feet per mill) | 105 | 124 | 125 | 153 | 156 | 153 | 154 | 175 | 180 | 191 | 82% |
| Average Log Input | (thousand cubic metres per mill) | 220 | 244 | 274 | 371 | 356 | 340 | 308 | 283 | 360 | 345 | 57% |
| Capacity Utilization | (output divided by capacity) | 110% | 112% | 126% | 141% | 132% | 126% | 115% | 90% | 111% | 105% | -4% |
| Recovery Factor | (square feet per cubic metre log input) | 523 | 585 | 591 | 587 | 579 | 569 | 575 | 559 | 556 | 579 | 11% |

**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**

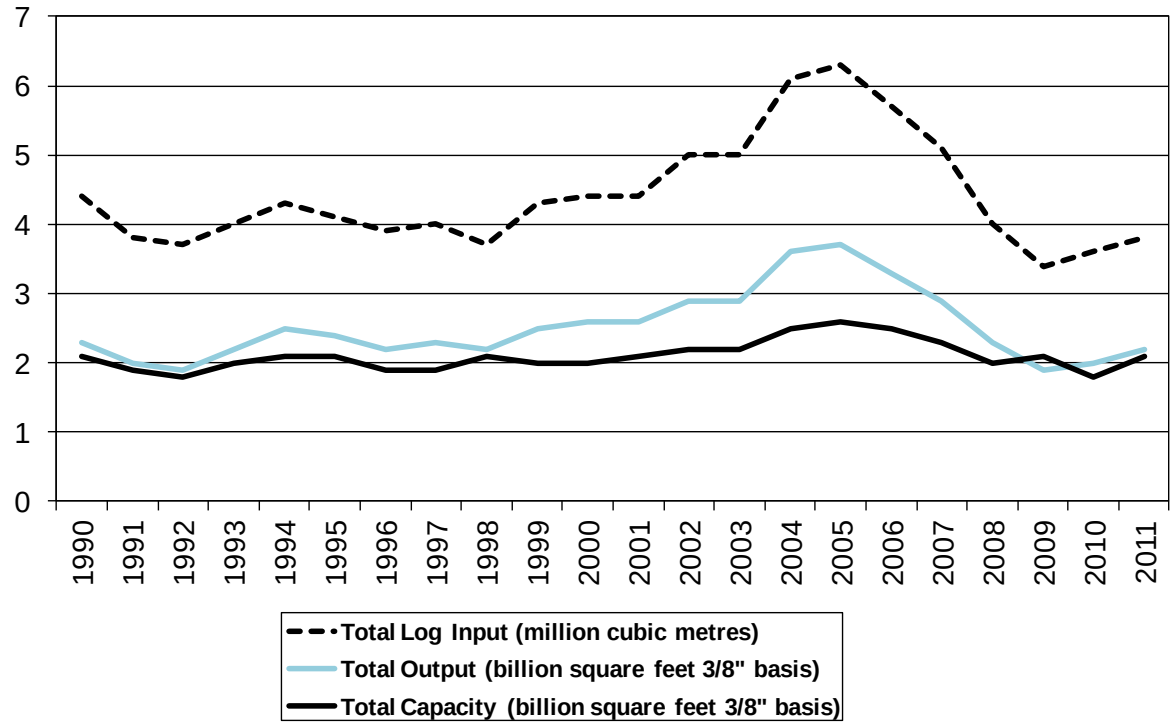



**Figure 12: B.C. Veneer Mills**
**Number of Mills and Average Capacity**

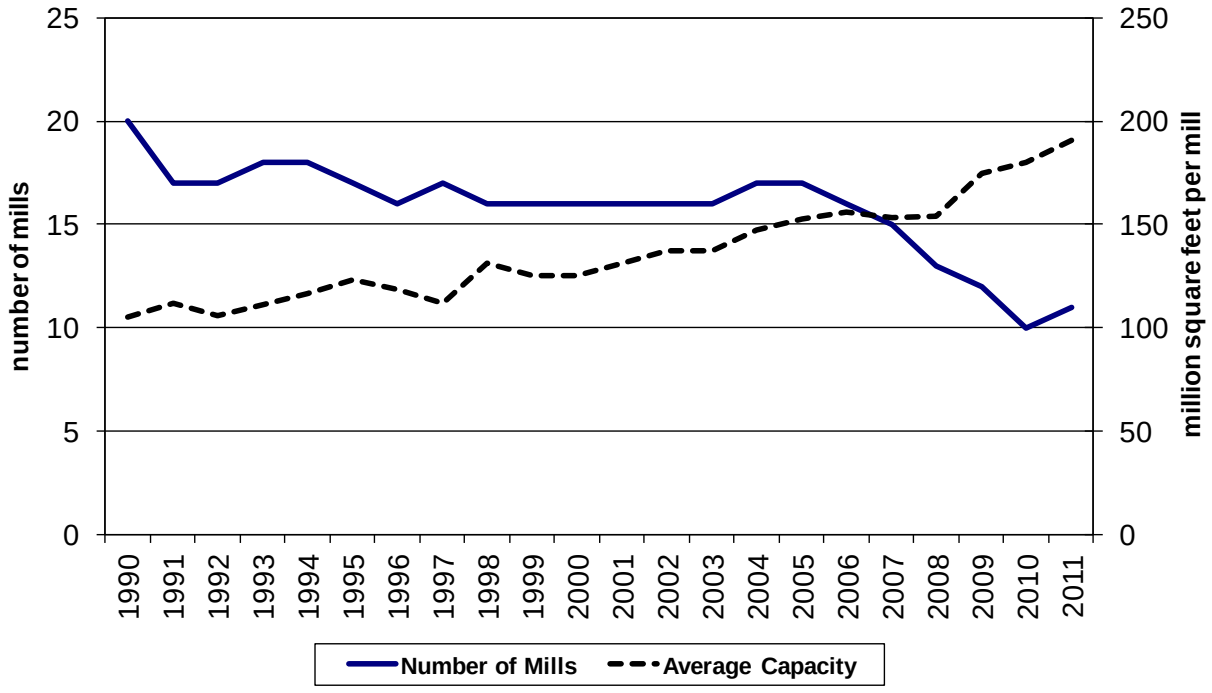


**Figure 13: B.C. Veneer Mills**
**Capacity Utilization**

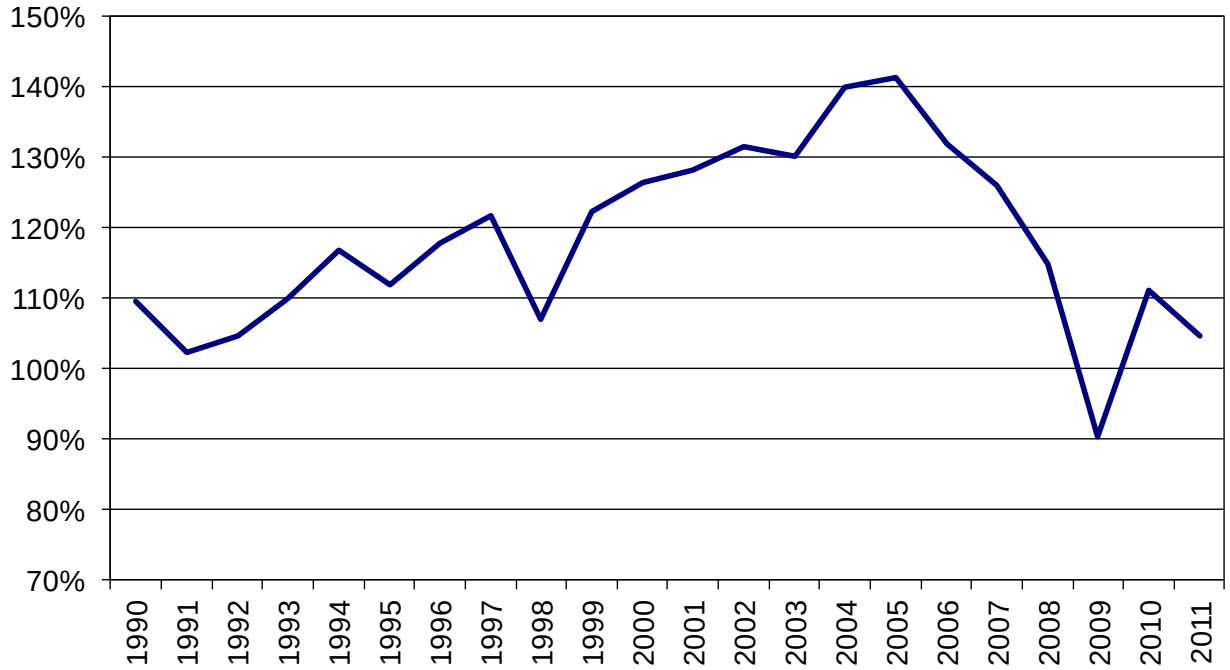
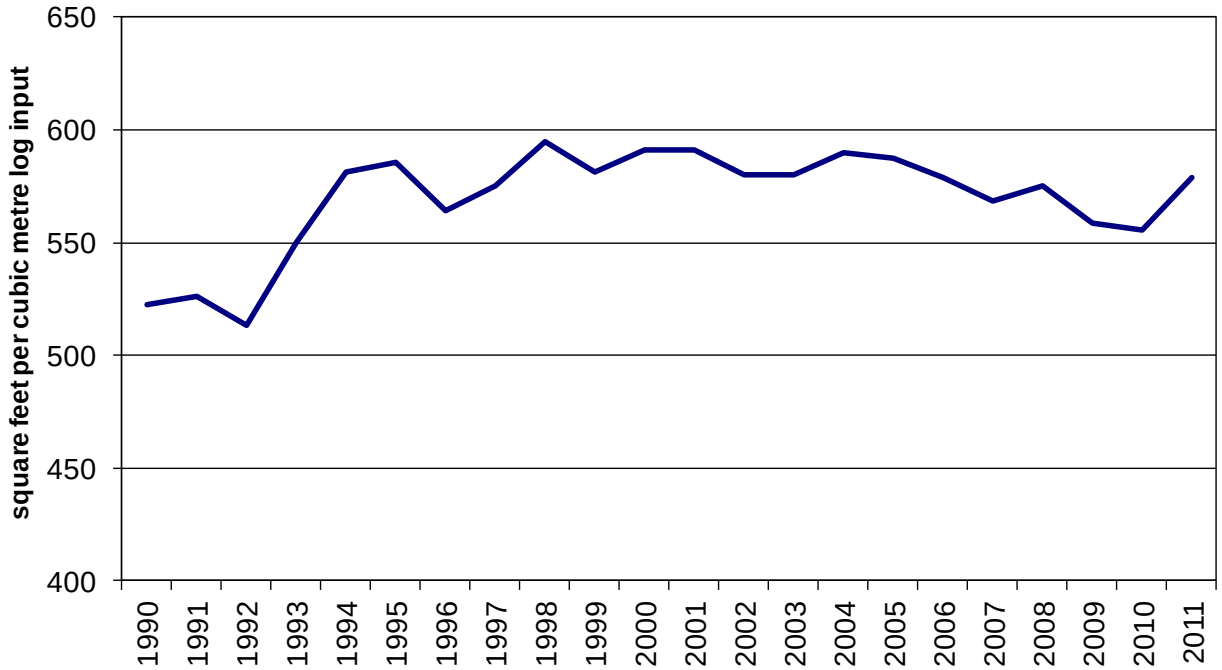



**Figure 14: B.C. Veneer Mills**
**Recovery Factor**



## 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 6 paper mills in B.C. in 2011, with all six paper mills integrated with the pulp operations. Seven of the 18 pulp mills are on the Coast and 11 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 B.C. is newsprint.

As lumber mills increased production, whole log chipping at pulp mills declined from the high of over 11% of fibre input in 2009 to 8.6% in 2011. In contrast with 8 pulp mills operating wood rooms in 2009, only 3 required the use of whole log chipping operations in 2011.

Table 3 presents an overview of pulp and paper mills in the province for 1991-2011. Total pulp mill capacity and output in B.C. have declined steadily since 1991. The pulp sector lost 0.65 million tonnes of capacity in 2010. In 2011, output matched input as seen in Figures 15 and 16.

Paper mill capacity and output took the most significant drop since 1991 by losing 1.0 million tonnes of capacity and output in 2010, a decline in capacity of 40%, as seen in Figure 17. In 2010 and 2011, average capacity was 253,000 tonnes per mill and capacity utilization was only slightly below 100%.

Since 2009, two pulp and two related paper mills have closed and a pulp mill has re-opened. Closures in 2010 include Catalyst Paper's[5] Elk Falls pulp and paper facilities near Campbell River, listed as Duncan Bay in previous reports, and the Eurocan pulp and paper Mill in Kitimat, operated by the West Fraser Timber Company. In 2010, the Mackenzie Pulp Corporation reopened the pulp mill in Mackenzie which was previously operated in 2007 by Pope and Talbot Ltd.

[5]Catalyst paper also closed a recycled pulp plant in Coquitlam, which was a de-inking facility. This plant was not included in pulp mill statistics in previous editions and is not included in Table 3.

**Table 3: British Columbia Pulp and Paper Mill Summary Statistics**

| | | 1991… | 1995… | 2000... | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | % change 1991-2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Pulp Mills | | 24 | 24 | 23 | 22 | 21 | 21 | 19 | 19 | 18 | 18 | -25% |
| Total Capacity | (million tonnes) | 8.42 | 8.21 | 7.84 | 7.42 | 7.42 | 6.84 | 6.36 | 6.33 | 5.68 | 5.74 | -32% |
| Total Output | (million tonnes) | 6.68 | 7.30 | 7.56 | 7.09 | 7.08 | 6.51 | 5.85 | 5.27 | 5.42 | 5.71 | -15% |
| 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 | -14% |
| Average Capacity | (thousand tonnes) | 351 | 342 | 341 | 337 | 353 | 326 | 335 | 333 | 316 | 319 | -9% |
| Average Fibre Input | (thousand bone dry units) | 490 | 531 | 584 | 562 | 562 | 522 | 532 | 467 | 515 | 563 | 15% |
| Capacity Utilization | | 79% | 89% | 96% | 96% | 95% | 95% | 92% | 83% | 95% | 100% | 25% |
| Number of Paper Mills | | 12 | 11 | 11 | 11 | 11 | 9 | 9 | 8 | 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 | -56% |
| Total Output | (million tonnes) | 2.74 | 2.75 | 3.17 | 3.02 | 3.04 | 2.55 | 2.42 | 2.03 | 1.49 | 1.48 | -46% |
| Average Capacity | (thousand tonnes) | 289 | 278 | 297 | 271 | 290 | 318 | 315 | 315 | 253 | 253 | -13% |
| Capacity Utilization | | 79% | 90% | 97% | 101% | 95% | 89% | 85% | 81% | 98% | 98% | 24% |

**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. A deinking pulp mill which used other input, such as waste paper, is not included in the table.

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

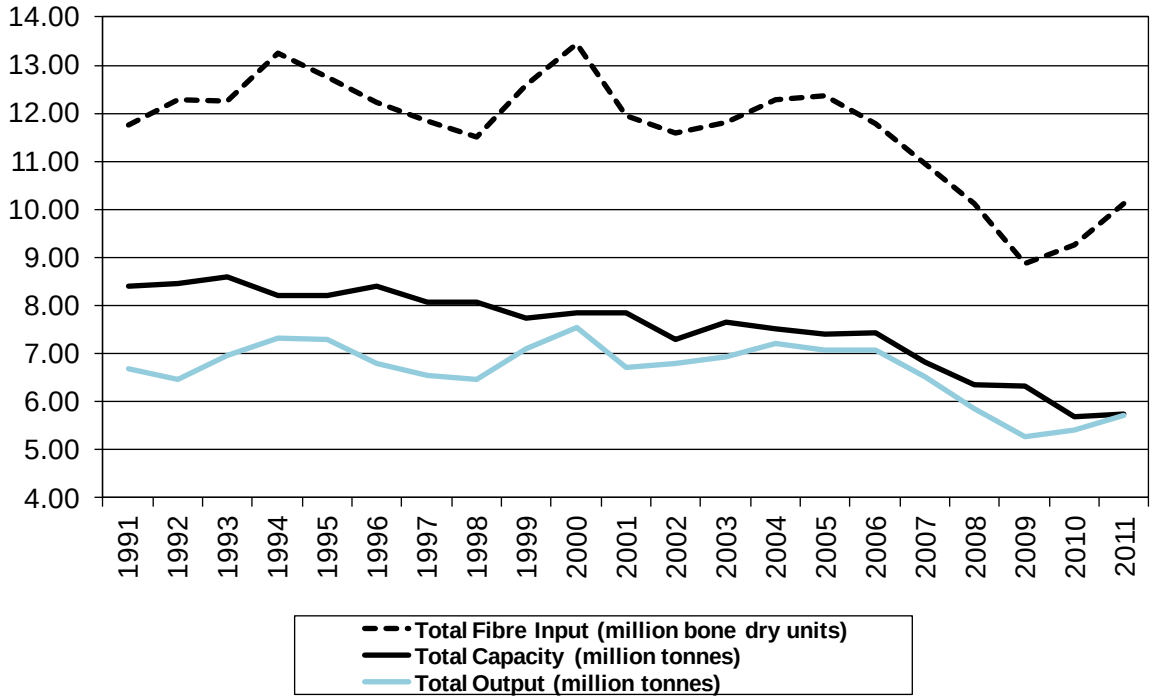



**Figure 16: B.C. Pulp Mills Capacity Utilization**

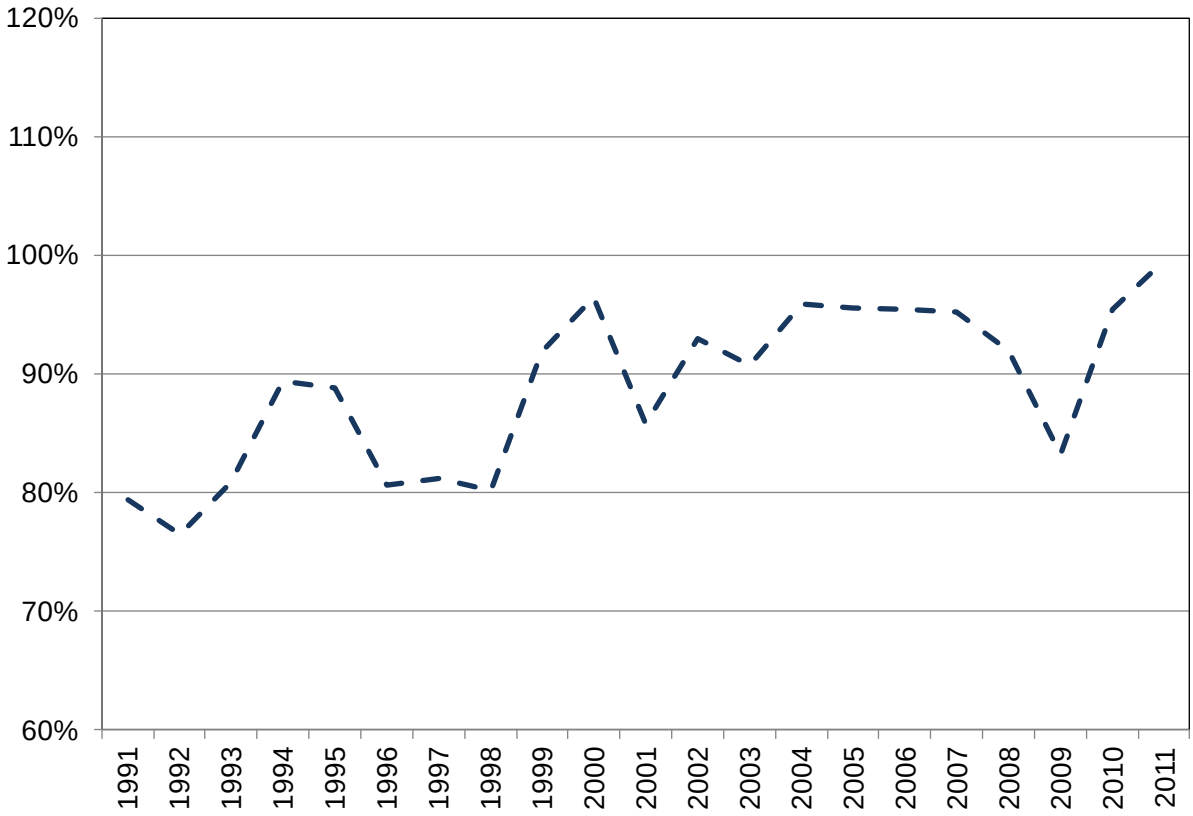


**Figure 17: B.C. Paper Mills**
**Capacity and Output**

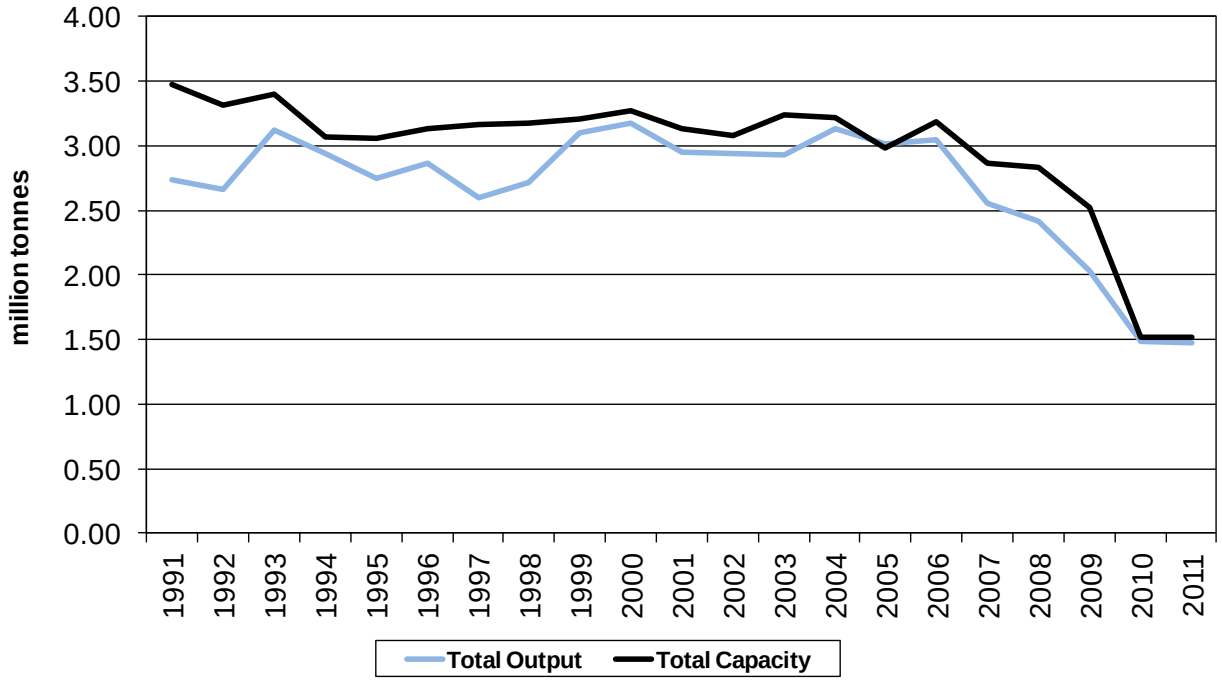
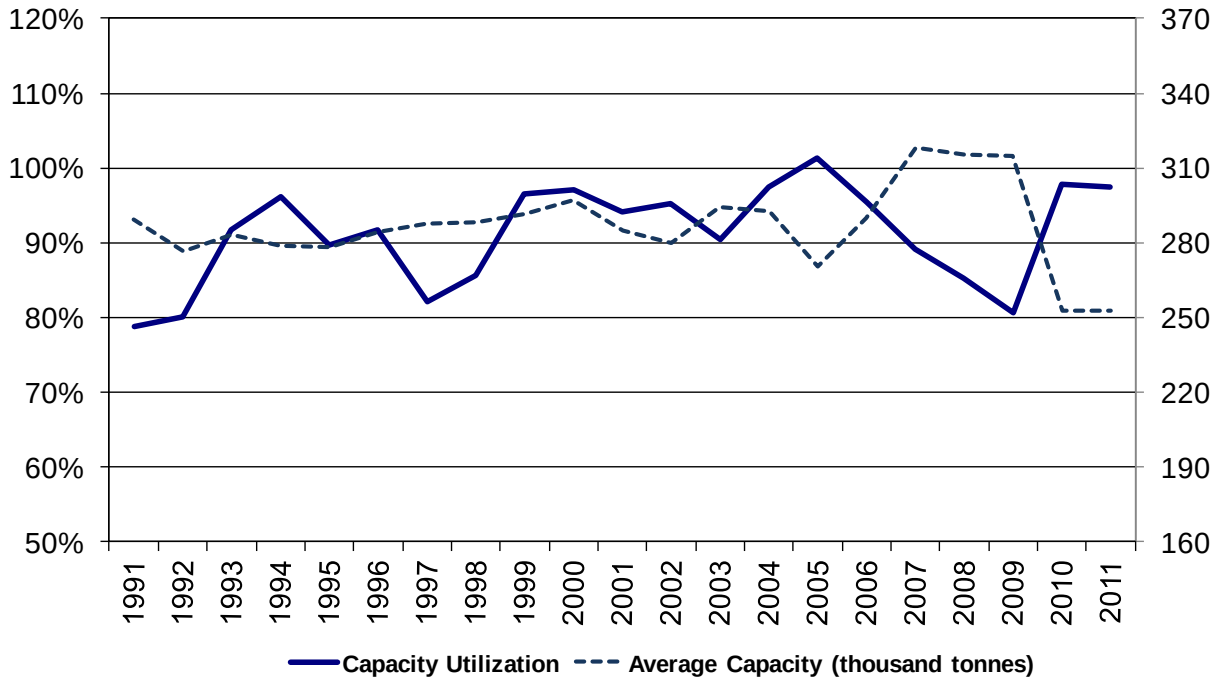



**Figure 18: B.C. Paper Mills**
**Capacity Utilization and Average Capacity**



## 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 B.C. in 2011. It is estimated that the total capacity for these mills was almost 2 million tonnes of pellets per year based on an operating schedule of three 8-hour shifts per day, 345 days per year. On average, mills ran at about 68% of capacity, producing about 1.36 million tonnes of pellets in 2011. The fibre used to produce this volume of pellets was about 1.28 million bone dry units, largely in the form of sawdust, which is equivalent to about 3.5 million cubic metres on a solid wood basis. After a downturn in output and capacity in 2009, capacity doubled between 2009 and 2011, as seen in Figure 17, with the addition of 2 new mills. Figure 18 shows that capacity utilization was highly variable as new mills, bringing additional capacity, were added to the sector.

## Table 4: British Columbia Pellet Mill Summary Statistics

| | | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | % change 2005-2011 |
|---|---|---|---|---|---|---|---|---|---|
| Number of Mills | | 5 | 8 | 8 | 9 | 9 | 10 | 11 | 120% |
| Total Capacity | (million tonnes) | 0.36 | 0.81 | 0.99 | 1.07 | 0.96 | 1.13 | 1.99 | 453% |
| Total Output | (million tonnes) | 0.36 | 0.39 | 0.41 | 0.79 | 0.76 | 0.97 | 1.36 | 278% |
| Total Input | (million bone dry units) | 0.41 | 0.44 | 0.47 | 0.81 | 0.68 | 0.97 | 1.28 | 212% |
| Average Capacity | (000s tonnes) | 72 | 101 | 124 | 119 | 107 | 113 | 181 | 151% |
| Average Fibre Input | (thousand bone dry units per mill) | 82 | 55 | 59 | 90 | 76 | 97 | 116 | 42% |
| Capacity Utilization | (output divided by capacity) | 100% | 48% | 41% | 74% | 79% | 86% | 68% | -32% |
| Recovery Factor | (Tonnes of output per tonne of bone dry input) | 0.88 | 0.89 | 0.87 | 0.98 | 1.12 | 1.00 | 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**

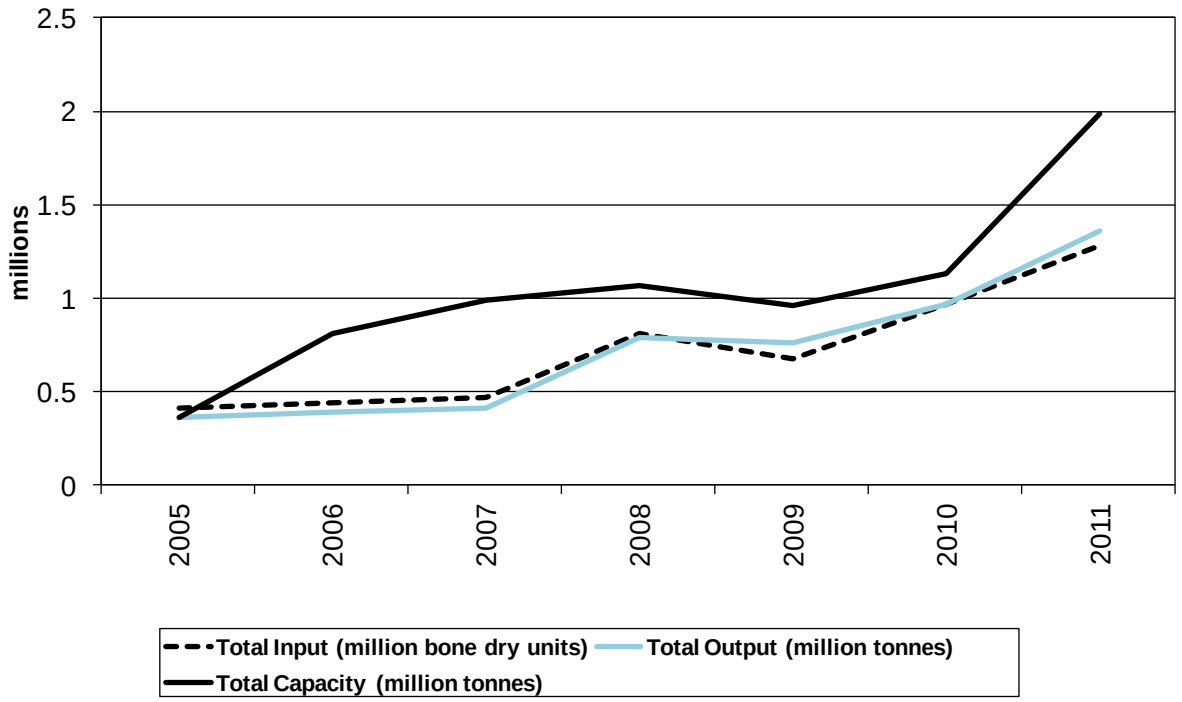
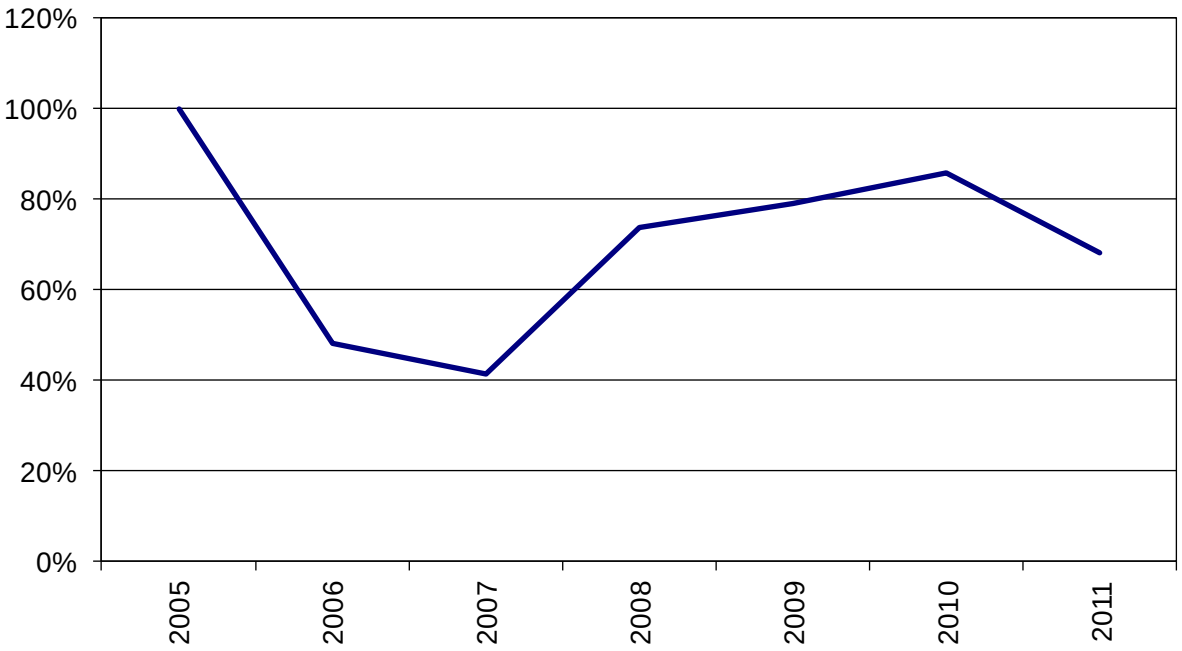



**Figure 20: B.C. Pellet Mills**
**Capacity Utilization**



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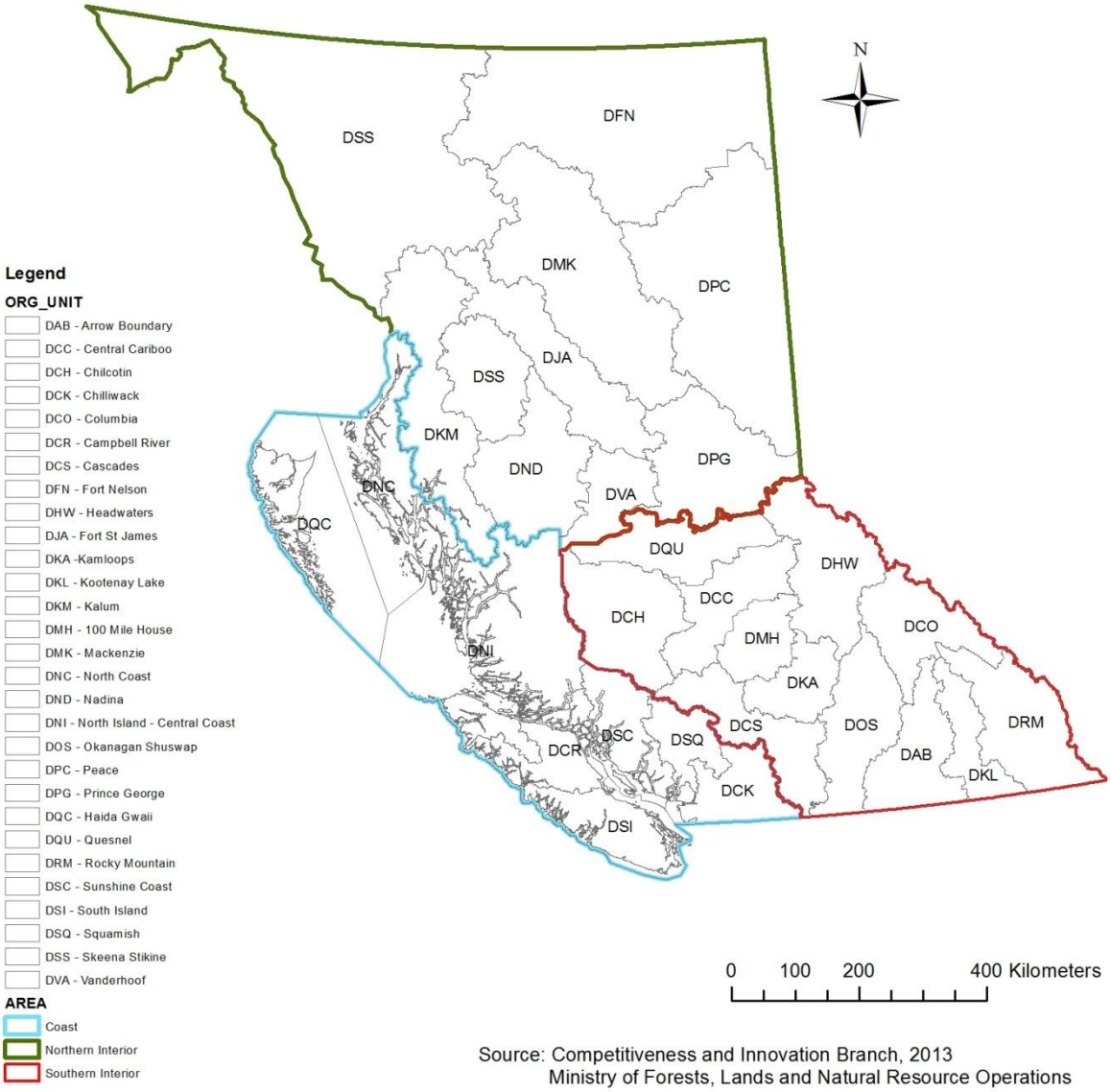
Random Lengths, Daily WoodWire, www.randomlengths.com/WoodWire/Index/

Wood Pellet Association of Canada, http://www.pellet.org/

## Appendix: List of Mills

## Forest regions and districts

**Figure 21. Historical region and forest district boundaries in 2009.**




Source: Competitiveness and Innovation Branch, 2013
Ministry of Forests, Lands and Natural Resource Operations

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**LUMBER MILLS WITH CAPACITY GREATER THAN 40 MILLION BOARD FEET OF LUMBER IN 2011**

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (millions of board feet) |
|---|---|---|---|---|---|
| 326 | Delta Cedar Products Ltd. | Delta | Coast | Chilliwack | 49 |
| 537 | Goldwood Industries Ltd | Richmond | Coast | Chilliwack | 58 |
| 297 | International Forest Products Ltd. | Hammond | Coast | Chilliwack | 166 |
| 283 | International Forest Products Ltd. | Delta | Coast | Chilliwack | 144 |
| 100 | J.S. Jones | Surrey | Coast | Chilliwack | 192 |
| 712 | Long Hoh Enterprises Canada Ltd. | Qualicum Beach | Coast | South Island | 43 |
| 396 | Mainland Sawmills | Vancouver | Coast | Chilliwack | 48 |
| 403 | Mill & Timber Products Ltd. | Surrey | Coast | Chilliwack | 58 |
| 336 | Mill & Timber Products Ltd. | Port Moody | Coast | Chilliwack | 130 |
| 22 | Noble Custom Cut Ltd. | Whonnock | Coast | Chilliwack | 48 |
| 454 | S&R Sawmills Ltd | Surrey | Coast | Chilliwack | 240 |
| 539 | Stag Timber Ltd. | Surrey | Coast | Chilliwack | 86 |
| 540 | Terminal Forest Products Ltd. | Richmond | Coast | Chilliwack | 245 |
| 453 | Twin River Cedar Products Ltd. | Ruskin | Coast | Chilliwack | 58 |
| 528 | Western Forest Products | Port Alberni | Coast | South Island | 145 |
| 392 | Western Forest Products Inc. | Port Alberni | Coast | South Island | 77 |
| 393 | Western Forest Products Inc. | Chemainus | Coast | South Island | 219 |
| 442 | Western Forest Products Inc. | Ladysmith | Coast | South Island | 147 |
| 376 | Western Forest Products Inc. | Ladysmith | Coast | South Island | 96 |
| 320 | Western Forest Products Inc. | Cowichan Bay | Coast | South Island | 163 |
| 531 | Western Forest Products Inc. | Nanaimo | Coast | South Island | 120 |
| 137 | Apollo Forest Products Ltd. | Fort St James | Northern Interior | Fort St James | 157 |
| 213 | Babine Forest Products Limited | Burns Lake | Northern Interior | Nadina | 288 |
| 122 | Canadian Forest Product Ltd. | Fort St John | Northern Interior | Peace | 216 |
| 166 | Canadian Forest Products Ltd. | Prince George | Northern Interior | Prince George | 291 |
| 160 | Canadian Forest Products Ltd. | Bear Lake | Northern Interior | Prince George | 205 |
| 193 | Canadian Forest Products Ltd. | Houston | Northern Interior | Nadina | 528 |
| 135 | Canadian Forest Products Ltd. | Isle Pierre | Northern Interior | Prince George | 221 |
| 140 | Canadian Forest Products Ltd. | Engen | Northern Interior | Vanderhoof | 498 |
| 127 | Canadian Forest Products Ltd. | Chetwynd | Northern Interior | Peace | 189 |
| 130 | Canadian Forest Products Ltd. | Mackenzie | Northern Interior | Mackenzie | 211 |
| 150 | Carrier Lumber Ltd | Prince George | Northern Interior | Prince George | 178 |
| 129 | Conifex Timber Inc. | Mackenzie | Northern Interior | Mackenzie | 192 |
| 133 | Conifex Timber Inc. | Fort St James | Northern Interior | Fort St James | 276 |
| 181 | Decker Lake Forest Products Ltd. | Burns Lake | Northern Interior | Nadina | 91 |
| 158 | Dunkely Lumber Ltd | Strathnaver | Northern Interior | Prince George | 528 |
| 530 | Houston Forest Products | Houston | Northern Interior | Nadina | 250 |
| 184 | Kitwanga Mills Ltd. | Kitwanga | Northern Interior | Skeena Stikine | 49 |
| 144 | L & M Lumber Ltd. | Vanderhoof | Northern Interior | Vanderhoof | 219 |
| 149 | Lakeland Mills Ltd | Prince George | Northern Interior | Prince George | 149 |

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

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (millions of board feet) |
|---|---|---|---|---|---|
| 191 | Pacific Inland Resources | Smithers | Northern Interior | Skeena Stikine | 265 |
| 552 | West Fraser Mills Ltd. | Chetwynd | Northern Interior | Peace | 269 |
| 532 | West Fraser Mills Ltd. | LeJac | Northern Interior | Vanderhoof | 272 |
| 207 | Ardew Wood Products Ltd | Merritt | Southern Interior | Cascades | 59 |
| 498 | Aspen Planers Ltd. | Merritt | Southern Interior | Cascades | 192 |
| 64 | Canadian Forest Products Ltd. | Vavenby | Southern Interior | Headwaters | 164 |
| 110 | Canadian Forests Products Ltd. | Quesnel | Southern Interior | Quesnel | 219 |
| 45 | Downie Timber Limited | Revelstoke | Southern Interior | Columbia | 106 |
| 86 | Galloway Lumber Co. Ltd. | Galloway | Southern Interior | Rocky Mountain | 70 |
| 66 | Gilbert Smith Forest Products Ltd. | Barriere | Southern Interior | Kamloops | 42 |
| 14 | Gorman Bros Lumber Ltd. | Westbank | Southern Interior | Okanagan Shuswap | 125 |
| 30 | International Forest Products Ltd. | Grand Forks | Southern Interior | Arrow Boundary | 120 |
| 62 | International Forest Products Ltd. | Castlegar | Southern Interior | Arrow Boundary | 240 |
| 70 | International Forest Products Ltd. | Adams Lake | Southern Interior | Kamloops | 345 |
| 88 | J H Huscroft Ltd. | Erickson | Southern Interior | Kootenay Lake | 58 |
| 50 | Kalesnikoff Lumber Co. Ltd. | Thrums | Southern Interior | Arrow Boundary | 72 |
| 603 | Meadow Creek Cedar Ltd. | Cooper Creek | Southern Interior | Kootenay Lake | 48 |
| 618 | North Enderby Timber Ltd. | Enderby | Southern Interior | Okanagan Shuswap | 48 |
| 626 | Porcupine Wood Products Ltd. | Salmo | Southern Interior | Arrow Boundary | 58 |
| 740 | Riverwest Forest Products Ltd. | Hanceville | Southern Interior | Chilcotin | 72 |
| 750 | Sigurdson Forest Products Ltd | Williams Lake | Southern Interior | Central Cariboo | 72 |
| 55 | Springer Creek Forest Products | Slocan | Southern Interior | Arrow Boundary | 115 |
| 79 | Tembec Industries Ltd. | Canal Flats | Southern Interior | Rocky Mountain | 173 |
| 82 | Tembec Industries Ltd. | Elko | Southern Interior | Rocky Mountain | 155 |
| 107 | Tolko Industries Ltd. | Williams Lake | Southern Interior | Central Cariboo | 197 |
| 103 | Tolko Industries Ltd. | Williams Lake | Southern Interior | Central Cariboo | 286 |
| 25 | Tolko Industries Ltd. | Merritt | Southern Interior | Cascades | 264 |
| 20 | Tolko Industries Ltd. | Lavington | Southern Interior | Okanagan Shuswap | 230 |
| 68 | Tolko Industries Ltd. | Armstrong | Southern Interior | Okanagan Shuswap | 233 |
| 67 | Tolko Industries Ltd. | Kelowna | Southern Interior | Okanagan Shuswap | 190 |
| 98 | Tolko Industries Ltd. | Quesnel | Southern Interior | Quesnel | 192 |
| 31 | Vaagen Fibre Canada | Midway | Southern Interior | Arrow Boundary | 134 |
| 114 | West Fraser Mills Ltd. | Williams Lake | Southern Interior | Central Cariboo | 170 |
| 113 | West Fraser Mills Ltd. | Quesnel | Southern Interior | Quesnel | 371 |
| 95 | West Fraser Mills Ltd. | 100 Mile House | Southern Interior | 100 Mile House | 356 |
| 214 | West Fraser Mills Ltd. | Clinton | Southern Interior | 100 Mile House | 240 |
| 29 | Weyerhaeuser Company Ltd. | Princeton | Southern Interior | Cascades | 171 |

**LUMBER MILLS WITH CAPACITY LESS THAN 40 MILLION BOARD FEET OF LUMBER IN 2011**

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (millions of board feet) |
|---|---|---|---|---|---|
| 9 | A J Forest Products ltd. | Brackendale | Coast | Squamish | 19.2 |
| 5 | Abfam Enterprises Ltd. | Port Clements | Coast | Haida Gwaii | 16.8 |
| 8 | Andersen Pacific Forest Products Ltd | Ruskin | Coast | Chilliwack | 30.7 |
| 905 | Blacktail Enterprises | Black Creek | Coast | Campbell River | 1.0 |
| 986 | Brasier Mill | Masset | Coast | Haida Gwaii | 0.5 |
| 117 | Continental Pole Ltd. | Pemberton | Coast | Squamish | 1.9 |
| 377 | Coulson Manufacturing Ltd. | Port Alberni | Coast | South Island | 27.8 |
| 741 | Dove Creek Timber Corp | Courtenay | Coast | Campbell River | 9.6 |
| 26 | Edge Grain Cedar Ltd. | Maple Ridge | Coast | Chilliwack | 0.1 |
| 717 | Edge Grain Forest Products Ltd. | Woss | Coast | North Island - Central Coast | 0.9 |
| 301 | Errington Cedar Products Ltd. | Errington | Coast | South Island | 16.7 |
| 714 | Franklin Forest Products Ltd. | Port Alberni | Coast | South Island | 19.2 |
| 319 | Fu So Enterprises Ltd. | Surrey | Coast | Chilliwack | 9.6 |
| 679 | G.C. Williams Milling | Malcolm Island | Coast | North Island - Central Coast | 1.9 |
| 567 | Green Forest Products Ltd. | Merville | Coast | Campbell River | 0.7 |
| 743 | Island Woodlots Ltd | Sointula | Coast | North Island - Central Coast | 1.0 |
| 512 | Jemico Enterprises Ltd. | Chemainus | Coast | South Island | 16.8 |
| 495 | Ken K. Foote Contracting (2008)Ltd. | Sandspit | Coast | Haida Gwaii | 0.5 |
| 399 | Lois Lumber Ltd. | Lang Bay | Coast | Sunshine Coast | 8.6 |
| 194 | Mike Gogo Cedar Products | Nanaimo | Coast | South Island | 1.2 |
| 985 | Moonshine Milling | Sandspit | Coast | Haida Gwaii | 0.3 |
| 408 | Nagaard Sawmills Ltd. | Port Alberni | Coast | South Island | 14.4 |
| 951 | Rainforest Resources Ltd. | Port Hardy | Coast | North Island - Central Coast | 0.1 |
| 23 | Shannon Lumber | Mission | Coast | Chilliwack | 9.6 |
| 654 | Spiketop Cedar Ltd. | Port Hardy | Coast | North Island - Central Coast | 1.0 |
| 24 | Suncoast Lumber & Milling | Sechelt | Coast | Sunshine Coast | 11.5 |
| 96 | Thomson Bros Lumber Co. Ltd | Courtenay | Coast | Campbell River | 4.8 |
| 546 | Western Forest Products Inc. | Duke Point | Coast | South Island | 15.6 |
| 732 | 550031 BC Ltd ( PG Sortyard) | Prince George | Northern Interior | Prince George | 24.0 |
| 10 | BC Custom Timber Products Ltd. | Vanderhoof | Northern Interior | Vanderhoof | 14.4 |
| 993 | Treeco Timber Corporation | Prince George | Northern Interior | Prince George | 1.0 |
| 715 | 100 Mile Wood Products | 100 Mile House | Southern Interior | 100 Mile House | 3.8 |
| 990 | Alan Hyde Sawmill | Sicamous | Southern Interior | Okanagan Shuswap | 1.0 |
| 255 | Buff Lumber Ltd | Westwold | Southern Interior | Okanagan Shuswap | 12.0 |
| 252 | C&C Wood Products Ltd. | Quesnel | Southern Interior | Quesnel | 25.9 |
| 987 | Cambie Cedar Products Ltd. | Sicamous | Southern Interior | Okanagan Shuswap | 10.1 |
| 983 | Colborne Lumber | Clearwater | Southern Interior | Headwaters | 0.8 |

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

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (millions of board feet) |
|---|---|---|---|---|---|
| 32 | Gibbs Custom Sawmill Ltd. | McBride | Southern Interior | Headwaters | 1.2 |
| 957 | Gold Island Forest Products Ltd. | Slocan | Southern Interior | Arrow Boundary | 16.8 |
| 975 | Harold Turner | Pritchard | Southern Interior | Kamloops | 0.8 |
| 172 | Hauer Bros. Lumber Ltd. | Tete Jaune Cache | Southern Interior | Headwaters | 16.8 |
| 47 | Joe Kozek Sawmills Ltd. | Revelstoke | Southern Interior | Columbia | 14.4 |
| 597 | Lakeside Timber Ltd. | Tappen | Southern Interior | Okanagan Shuswap | 16.8 |
| 998 | Les Savarella Contracting | McBride | Southern Interior | Headwaters | 0.1 |
| 197 | McDonald Ranch & Lumber Ltd | Grasmere | Southern Interior | Rocky Mountain | 2.9 |
| 974 | Murray Kane Site 6LW | Clinton | Southern Interior | 100 Mile House | 0.5 |
| 199 | North Star Planing Co. Ltd. | Athalmer | Southern Interior | Rocky Mountain | 3.8 |
| 988 | Northstar Log & Timberframe | Winfield | Southern Interior | Okanagan Shuswap | 1.0 |
| 977 | Pioneer Timber Group | Williams Lake | Southern Interior | Central Cariboo | 38.6 |
| 271 | Rourke Bros Sawmill Ltd | Lumby | Southern Interior | Okanagan Shuswap | 5.8 |
| 991 | T & N Custom Sawmill | Enderby | Southern Interior | Okanagan Shuswap | 1.4 |
| 229 | Wadlegger Log & Constr. Co. | Raft River | Southern Interior | Headwaters | 4.8 |
| 979 | Woodco Management Ltd | Barriere | Southern Interior | Kamloops | 17.3 |
| 87 | Woodex Industries Ltd | Edgewater | Southern Interior | Rocky Mountain | 36.0 |
| 93 | Wynndel Box & Lumber Co. Ltd. | Wynndel | Southern Interior | Kootenay Lake | 40.0 |

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**PULP AND PAPER MILLS - 2011**

| Mill Number | Company | Location of Mill | Product | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (000s of tonnes) |
|---|---|---|---|---|---|---|
| 960 | Canadian Forest Products Ltd. | Prince George | PLP | Northern Interior | Prince George | 313 |
| 500 | Canadian Forest Products Ltd. | Prince George | PLP | Northern Interior | Prince George | 140 |
| 335 | Canadian Forest Products Ltd. | Taylor | PLP | Northern Interior | Peace | 210 |
| 503 | Canadian Forest Products Ltd. | Prince George | PLP | Northern Interior | Prince George | 568 |
| 497 | Cariboo Pulp & Paper Company | Quesnel | PLP | Southern Interior | Quesnel | 331 |
| 487 | Catalyst Paper | Port Alberni | PLP | Coast | South Island | 186 |
| 486 | Catalyst Paper Corp. | Powell River | PLP | Coast | Sunshine Coast | 354 |
| 483 | Catalyst Paper Corp. | Crofton | PLP | Coast | South Island | 373 |
| 2 | Domtar | Kamloops | PLP | Southern Interior | Kamloops | 460 |
| 484 | Howe Sound Pulp & Paper Corporation | Port Mellon | PLP | Coast | Sunshine Coast | 725 |
| 491 | Kruger Products L.P. | New Westminster | PLP | Coast | Chilliwack | 31 |
| 505 | Mackenzie Pulp Mill Corporation | Mackenzie | PLP | Northern Interior | Mackenzie | 224 |
| 488 | Nanaimo Forest Products Ltd. | Cedar | PLP | Coast | South Island | 327 |
| 489 | Neucel Specialty Cellulose | Port Alice | PLP | Coast | North Island - Central Coast | 173 |
| 553 | Quesnel River Pulp Company | Quesnel | PLP | Southern Interior | Quesnel | 370 |
| 205 | Tembec Industries Ltd. | Chetwynd | PLP | Northern Interior | Peace | 205 |
| 1 | Tembec Industries Ltd. | Skookumchuk | PLP | Southern Interior | Rocky Mountain | 248 |
| 501 | Zellstoff Celgar Limited Partnership | Castlegar | PLP | Southern Interior | Arrow Boundary | 503 |
| 500 | Canadian Forest Products Ltd. | Prince George | PPR | Northern Interior | Prince George | 132 |
| 487 | Catalyst Paper - Port Alberni Division | Port Alberni | PPR | Coast | South Island | 318 |
| 486 | Catalyst Paper Corp. | Powell River | PPR | Coast | Sunshine Coast | 424 |
| 483 | Catalyst Paper Corp. | Crofton | PPR | Coast | South Island | 288 |
| 484 | Howe Sound Pulp & Paper Corporation | Port Mellon | PPR | Coast | Sunshine Coast | 259 |
| 491 | Kruger Products L.P. | New Westminster | PPR | Coast | Chilliwack | 95 |

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**VENEER, PLYWOOD, OSB AND OTHER PANEL MILLS - 2011**

| Mill Number | Company | Location of Mill | Product | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (million sq. ft, 3/8" basis) |
|---|---|---|---|---|---|---|
| 411 | Ainsworth Lumber Co Ltd | 100 Mile House | OSB | Southern Interior | 100 Mile House | 458 |
| 650 | Louisiana Pacific/Tembec Operation | Dawson Creek | OSB | Northern Interior | Peace | 388 |
| 942 | Peace Valley OSB | Fort St John | OSB | Northern Interior | Peace | 1490 |
| 12 | Federated Co-operatives Limited | Canoe | PLY | Southern Interior | Okanagan Shuswap | 418 |
| 84 | LP Building Products - Canada | Golden | PLY | Southern Interior | Columbia | 16 |
| 478 | Richmond Plywood Corporation Limited | Richmond | PLY | Coast | Chilliwack | 216 |
| 109 | Savona Specialty Plywood | Savona | PLY | Southern Interior | Kamloops | 1500 |
| 394 | Tolko Industries Ltd. | Heffley Creek | PLY | Southern Interior | Kamloops | 186 |
| 68 | Tolko Industries Ltd. | Armstrong | PLY | Southern Interior | Okanagan Shuswap | 252 |
| 112 | West Fraser Mills Limited | Quesnel | PLY | Southern Interior | Quesnel | 214 |
| 105 | West Fraser Mills Ltd. | Williams Lake | PLY | Southern Interior | Central Cariboo | 194 |
| 357 | Northern Engineered Wood Products (2007) In | Smithers | PNL | Northern Interior | Skeena Stikine | 94 |
| 113 | West Fraser Mills Ltd. | Quesnel | PNL | Southern Interior | Quesnel | 311 |
| 115 | Aspen Planers Ltd | Lillooet | VNR | Southern Interior | Cascades | 264 |
| 51 | ATCO Wood Products Ltd. | Fruitvale | VNR | Southern Interior | Arrow Boundary | 110 |
| 34 | B C Veneer Products Ltd | Surrey | VNR | Coast | Chilliwack | 1 |
| 508 | CIPA Lumber Co. LTD | Annacis Island | VNR | Coast | Chilliwack | 216 |
| 244 | Coastland Wood Industries Ltd. | Nanaimo | VNR | Coast | South Island | 408 |
| 12 | Federated Co-operatives Limited | Canoe | VNR | Southern Interior | Okanagan Shuswap | 288 |
| 84 | LP Building Products - Canada | Golden | VNR | Southern Interior | Columbia | 16 |
| 478 | Richmond Plywood Corporation Limited | Richmond | VNR | Coast | Chilliwack | 187 |
| 982 | Silver Dew Hardwoods Limited | Clearwater | VNR | Southern Interior | Headwaters | 0 |
| 35 | Tolko Industries Ltd. | Lumby | VNR | Southern Interior | Okanagan Shuswap | 192 |
| 394 | Tolko Industries Ltd. | Heffley Creek | VNR | Southern Interior | Kamloops | 163 |
| 112 | West Fraser Mills Limited | Quesnel | VNR | Southern Interior | Quesnel | 156 |
| 105 | West Fraser Mills Ltd. | Williams Lake | VNR | Southern Interior | Central Cariboo | 120 |

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**CHIP MILLS - 2011**

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity (000s of BDUs) |
|---|---|---|---|---|---|
| 446 | Campbell River Fibre Ltd. | Campbell River | Coast | Campbell River | 86 |
| 924 | Chips Ahoy Fibre Supply Ltd | Mission | Coast | Chilliwack | 130 |
| 345 | DCT Chambers Trucking Ltd. | Chemainus | Coast | South Island | 187 |
| 356 | East Fraser Fibre Co Ltd. | Mackenzie | Northern Interior | Mackenzie | 240 |
| 409 | Howe Sound Pulp & Paper Ltd. | Vancouver | Coast | Chilliwack | 293 |
| 937 | Pacific Fibre Ltd. | Port Mellon | Coast | Sunshine Coast | 149 |
| 952 | River City Fibre | Kamloops | Southern Interior | Kamloops | 216 |
| 18 | Terminal Forest Products Ltd | Langdale Dryland Sort | Coast | Sunshine Coast | 91 |
| 394 | Tolko Industries Ltd. | Heffley Creek | Southern Interior | Kamloops | 77 |
| 68 | Tolko Industries Ltd. | Armstrong | Southern Interior | Okanagan Shuswap | 96 |

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**PELLET MILLS - 2011**

| Mill Number | Company | Location of Mill | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity ('000s of tonnes) |
|---|---|---|---|---|---|
| 947 | Houston Pellet Limited Partnership | Houston | Northern Interior | Nadina | 225 |
| 935 | Okanagan Pellet Company | Westbank | Southern Interior | Okanagan Shuswap | 66 |
| 930 | Pacific Bioenergy | Prince George | Northern Interior | Prince George | 345 |
| 929 | Pinnacle Renewable Energy Inc. | Armstrong | Southern Interior | Okanagan Shuswap | 69 |
| 980 | Pinnacle Renewable Energy Inc. | Burns Lake | Northern Interior | Nadina | 414 |
| 976 | Pinnacle Renewable Energy Inc. | Strathnaver | Northern Interior | Prince George | 225 |
| 931 | Pinnacle Renewable Energy Inc. | Quesnel | Southern Interior | Quesnel | 104 |
| 948 | Pinnacle Renewable Energy Inc. | Williams Lake | Southern Interior | Central Cariboo | 207 |
| 932 | Premium Pellet Ltd. | Vanderhoof | Northern Interior | Vanderhoof | 169 |
| 933 | Princeton Co-Generation Corp. | Princeton | Southern Interior | Cascades | 107 |
| 995 | Vanderhoof Specialty Wood Products | Vanderhoof | Northern Interior | Vanderhoof | 62 |

## 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. Forest regions and districts are those that were applicable in 2009 (see Figure 21 on page 30).

**TYPES OF POLE MILLS - 2011**

| Mill Number | Company | Location of Mill | Product | 2009 Forest Region | 2009 Forest District | Estimated Annual Capacity ('000s of pieces) |
|---|---|---|---|---|---|---|
| 498 | Aspen Planers Ltd. | Merritt | PLE | Southern Interior | Cascades | 960 |
| 724 | Integrated Pole | 100 Mile House | PLE | Southern Interior | 100 Mile House | 11 |
| 279 | J. R. Blackmore & Sons Ltd. | Lumberton | PLE | Southern Interior | Rocky Mountain | 180 |
| 250 | Nicola Post and Rail Ltd. | Merritt | PLE | Southern Interior | Cascades | 120 |
| 725 | O'Brien & Fuerst Logging Ltd | Port Clements | PLE | Coast | Haida Gwaii | 12 |
| 677 | Pacific Inland Pole & Piling Ltd. | Nakusp | PLE | Southern Interior | Arrow Boundary | 12 |
| 237 | Princeton Post and Rail Co. Ltd. | Princeton | PLE | Southern Interior | Cascades | 144 |
| 498 | Aspen Planers Ltd. | Merritt | PST | Southern Interior | Cascades | 480 |
| 390 | Box Lake Lumber Products Ltd. | Nakusp | PST | Southern Interior | Arrow Boundary | 504 |
| 997 | Cedar 3 Products (R3 91 Enterprises L | McBride | PST | Southern Interior | Headwaters | 288 |
| 117 | Continental Pole Ltd. | Pemberton | PST | Coast | Squamish | 0 |
| 279 | J. R. Blackmore & Sons Ltd. | Lumberton | PST | Southern Interior | Rocky Mountain | 960 |
| 970 | KDL Group - Northern Forest Products | Fort St James | PST | Northern Interior | Fort St James | 760 |
| 607 | Monte Lake Forest Products Inc | Monte Lake | PST | Southern Interior | Okanagan Shuswap | 2 |
| 250 | Nicola Post and Rail Ltd. | Merritt | PST | Southern Interior | Cascades | 60 |
| 725 | O'Brien & Fuerst Logging Ltd | Port Clements | PST | Coast | Haida Gwaii | 6 |
| 739 | Panhandle Forest Products | Lumberton | PST | Southern Interior | Rocky Mountain | 168 |
| 237 | Princeton Post and Rail Co. Ltd. | Princeton | PST | Southern Interior | Cascades | 480 |
| 232 | Princeton Wood Preservers Ltd. | Princeton | PST | Southern Interior | Cascades | 612 |
| 619 | Quinton Bros. | Caven | PST | Southern Interior | Rocky Mountain | 600 |
| 343 | TRC Cedar Ltd. | McBride | PST | Southern Interior | Headwaters | 540 |
| 659 | Brisco Wood Preservers Ltd. | Brisco | UTI | Southern Interior | Rocky Mountain | 12 |
| 556 | Chinook Forest Products Ltd. | Courtenay | UTI | Coast | Campbell River | 24 |
| 117 | Continental Pole Ltd. | Pemberton | UTI | Coast | Squamish | 17 |
| 181 | Decker Lake Forest Products Ltd. | Burns Lake | UTI | Northern Interior | Nadina | 18 |
| 40 | Gorman Bros. Lumber Ltd. | Lumby | UTI | Southern Interior | Okanagan Shuswap | 35 |
| 724 | Integrated Pole | 100 Mile House | UTI | Southern Interior | 100 Mile House | 11 |
| 725 | O'Brien & Fuerst Logging Ltd | Port Clements | UTI | Coast | Haida Gwaii | 5 |
| 677 | Pacific Inland Pole & Piling Ltd. | Nakusp | UTI | Southern Interior | Arrow Boundary | 18 |
| 188 | Paterson Pole Ltd. | Rossland | UTI | Southern Interior | Arrow Boundary | 36 |
| 619 | Quinton Bros. | Caven | UTI | Southern Interior | Rocky Mountain | 19 |
| 648 | Selkirk Forest Products Ltd. | Galloway | UTI | Southern Interior | Rocky Mountain | 60 |
| 729 | Sierra Cascade Resources | Kelsey Bay | UTI | Coast | Campbell River | 0 |
| 48 | Stella-Jones Canada Inc. | Revelstoke | UTI | Southern Interior | Columbia | 54 |
| 637 | Stella-Jones Inc. | Prince George | UTI | Northern Interior | Prince George | 17 |