

Current Facts & Statistics

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Environment and Sustainable Resource Development

Timber Volume Harvested

The Alberta government regulates the amount of timber harvested to ensure that it does not exceed sustainable levels of approved Annual Allowable Cut (AAC). It is essential to have a reliable and accurate measure of harvested timber to compare against the allocated timber. Both timber scaling and measurement of timber products are used to determine the actual volume of timber harvested. Timber scaling involves converting the weight of truckloads of logs to volumes. This is done by first weighing the trees and then measuring the dimension of all trees in the same load.

The Alberta government uses a forest tenure system to assign the right to harvest Crown timber to companies and individuals. There are three forest tenure types: Forest Management Agreement (FMA), Timber Quota and Timber Permit. These may be further divided into coniferous (e.g. lodgepole pine) or deciduous (e.g. trembling aspen) species groups.

The department allocates areas for harvesting according to the type of forest tenure and the forest management planning commitments.

Harvested timber is loaded onto trucks and hauled to manufacturing facilities (mills) for processing. At the mill (Figure 1), loaded trucks are weighed, and a weigh scale program converts the weight into the harvested volume. The Alberta government assesses the amount of money owed to the Crown (known as royalties or timber dues¹) based on the weigh-scaled timber volume and the final manufactured product.

All harvesting and related financial information including forest tenure details, charges owed to the government and timber harvest information are stored for each company or individual in Alberta's Timber Production and Revenue System (TPRS) database. TPRS provides the means to capture and report on the harvesting and billing

Figure 1. An example of a manufacturing facility (mill).



for Crown timber in Alberta. The department conducts annual audits and random checks to ensure accuracy of information (Figure 2).

Figure 2. Measuring harvested timber to ensure the accuracy of records.



¹<http://srd.alberta.ca/LandsForests/ForestManagement/TimberDuesCrownFees/Default.aspx>

Current Statistics

The timber harvested from Alberta public land from May 1, 2010 to April 30, 2011 by all forest tenure types was summarized in the following statistics. Industrial salvage, and timber on private and federal lands were also included. These statistics excluded timber volume removed because of non-forestry industrial use of land within an allocated harvest area.

As shown in Table 1 and Figure 3, the majority (over 81%) of timber harvesting in Alberta occurred in the mixed-wood boreal forest found

in the Upper Athabasca, Upper Peace and Lower Peace regions.

The Red Deer Region had the lowest amount of volume harvested on Alberta public land, as it is mainly comprised of non-forested private land.

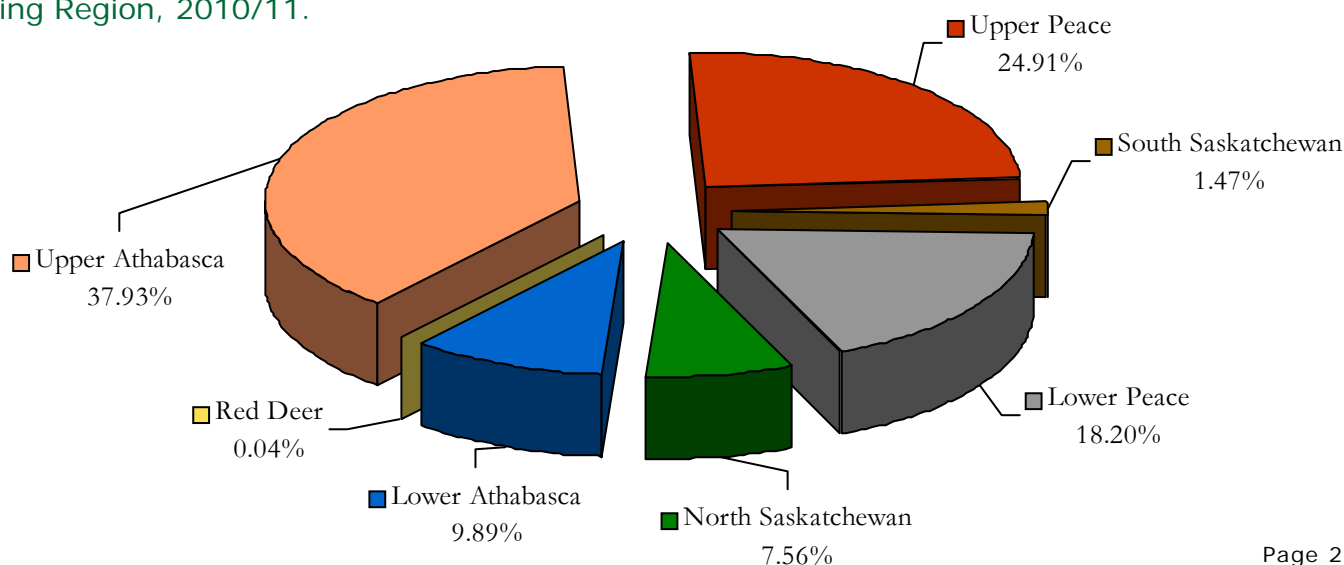
As shown in Figure 4, Upper Athabasca (37.79%) and Upper Peace (27.14%) regions had the highest percentages of coniferous volume harvested in 2010/11.

Table 1. Timber volume harvested in Alberta by Land-use Framework Planning Region, 2010/11.¹

Land-use Framework Planning Region	Coniferous volume harvested (cubic metres) ²	Deciduous volume harvested (cubic metres) ³	Total timber volume harvested (cubic metres) ⁴
Lower Athabasca	737,436	1,339,859	2,077,295
Lower Peace	2,526,243	1,297,311	3,823,554
North Saskatchewan	1,462,396	127,048	1,589,444
Red Deer	9,313	0	9,313
South Saskatchewan	308,932	0	308,932
Upper Athabasca	5,435,142	2,536,043	7,971,185
Upper Peace	3,903,022	1,331,427	5,234,449
Provincial Total	14,382,484	6,631,688	21,014,172

¹Preliminary results. ²Depending on the area, this may include Douglas fir, subalpine fir, balsam fir, alpine larch, tamarack larch, western larch, Jack pine, lodgepole pine, black spruce, Englemann spruce and/or white spruce. Limber pine and whitebark pine are Endangered Species under the *Alberta Wildlife Act* and do not contribute to Annual Allowable Cuts in Alberta. ³Depending on the area, this may include balsam (black) poplar, trembling aspen and/or white birch. ⁴There was no timber exported for processing by mills outside Alberta. A total of 1,811,952 m³ was from industrial salvage, and private and federal lands. A total of 16,558 m³ was from Local Timber Permits.

Figure 3. Percentage of total timber volume harvested in Alberta by Land-use Framework Planning Region, 2010/11.



Current Statistics cont'd

The Red Deer Region had 0.06 per cent of coniferous timber volume harvested in 2010/11, as shown in Figure 4.

Figure 5 shows that Upper Athabasca (38.24%) had the highest percentage of deciduous volume

harvested in 2010/11. North Saskatchewan had only 1.92 per cent of deciduous volume harvested. South Saskatchewan and Red Deer regions had no deciduous volume harvested in 2010/11.

Figure 4. Percentage of coniferous timber volume harvested in Alberta by Land-use Framework Planning Region, 2010/11.

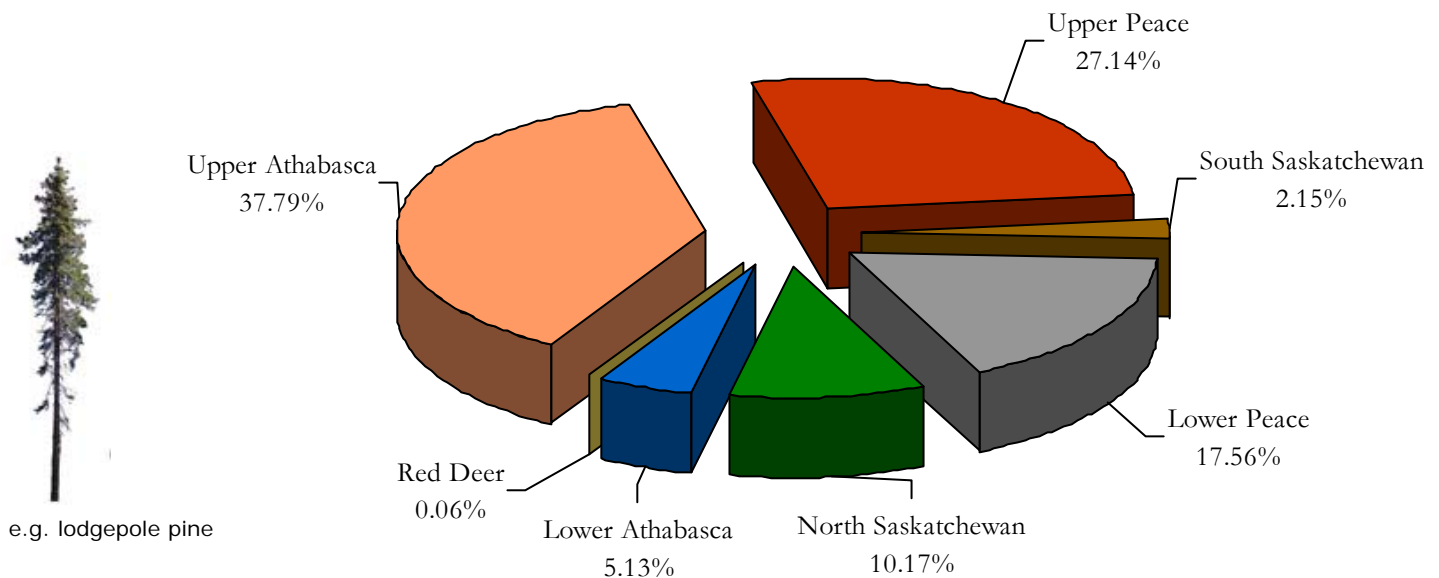
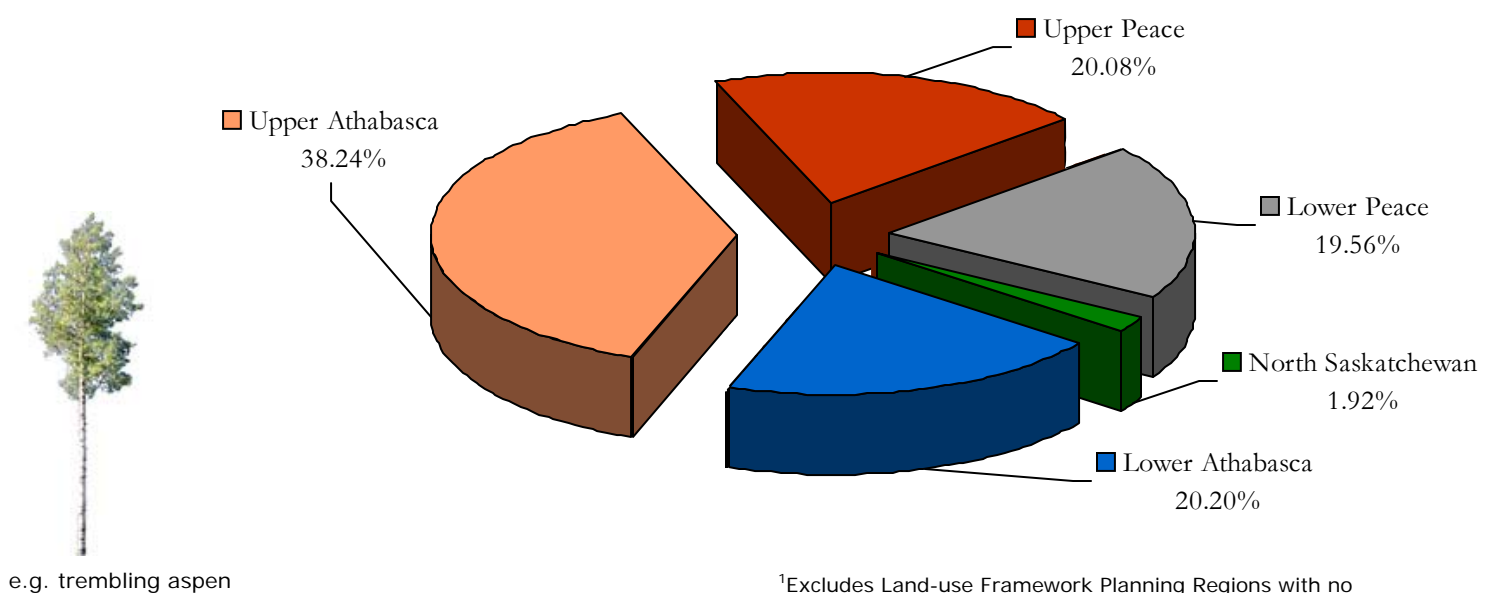


Figure 5. Percentage of deciduous timber volume harvested in Alberta by Land-use Framework Planning Region, 2010/11.¹



¹Excludes Land-use Framework Planning Regions with no deciduous timber volume harvested.

Current Statistics cont'd

Table 2 and Figure 6 summarize the volume harvested by forest tenure type. In Alberta, over two-thirds (68.16%) of the timber harvested was under the authority of FMAs. Timber Quotas with Coniferous Timber Licences (14.93%) accounted for the next largest tenure type. Timber Quotas with Deciduous Timber Licences had 5.58 per

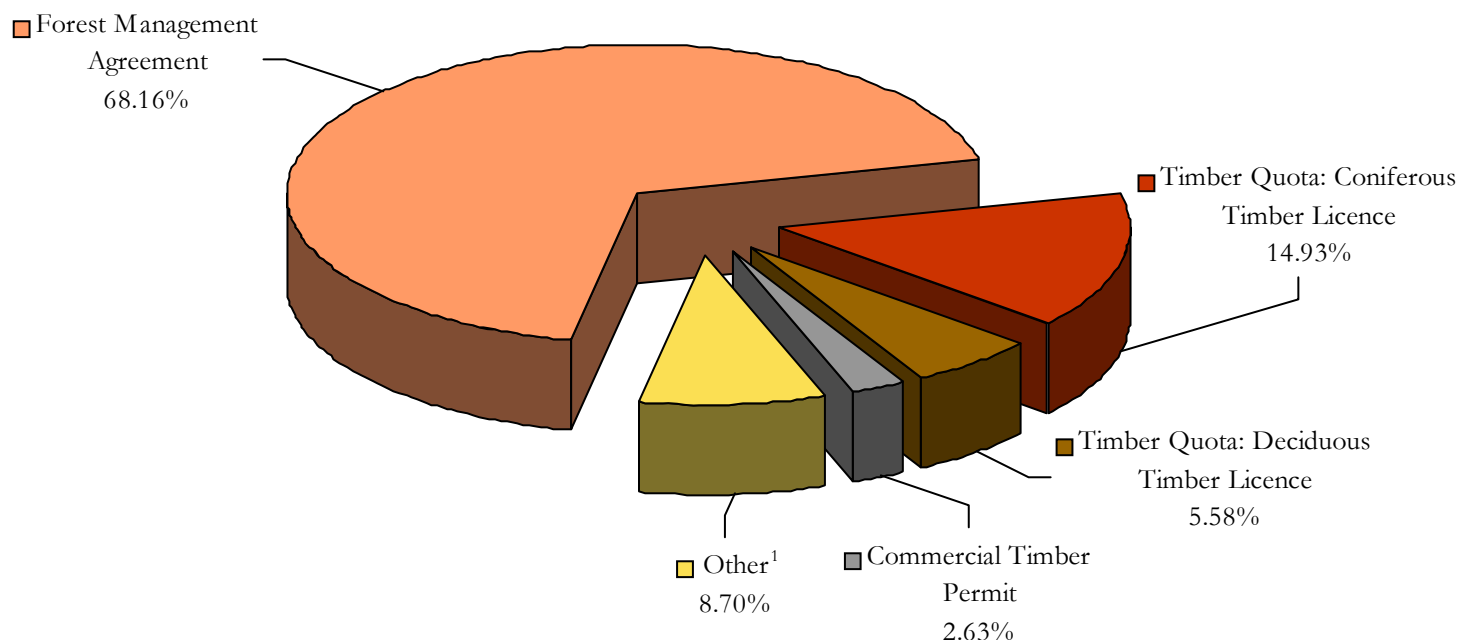
cent of all volume harvested in 2010/11. Commercial Timber Permits, the smallest and shortest-term tenures, represented only 2.63 per cent of the total harvest. The Other category (8.70%) represented volumes harvested from industrial salvage, private and federal lands, and Local Timber Permits.

Table 2. Timber volume harvested in Alberta by forest tenure type, 2010/11.¹

Forest tenure type	Total timber volume harvested (cubic metres)
Forest Management Agreement	14,322,950
Timber Quota: Coniferous Timber Licence	3,137,848
Timber Quota: Deciduous Timber Licence	1,172,256
Commercial Timber Permit	552,608
Other ²	1,828,510
Provincial Total	21,014,172

¹Preliminary results. ²Includes 1,811,952 m³ from industrial salvage, and private and federal lands. It also includes a total of 16,558 m³ from Local Timber Permits.

Figure 6. Percentage of timber volume harvested in Alberta by forest tenure type, 2010/11.



¹Includes 1,811,952 m³ from industrial salvage, and private and federal lands. It also includes a total of 16,558 m³ from Local Timber Permits.

Current Statistics cont'd

Table 3 and Figure 7 summarize the volume harvested by product category. As shown in Figure 7, over two-thirds (69.70%) of the volume harvested in Alberta was used to produce lumber in 2010/11. Another 21.95 per cent of the volume was processed into pulp for paper

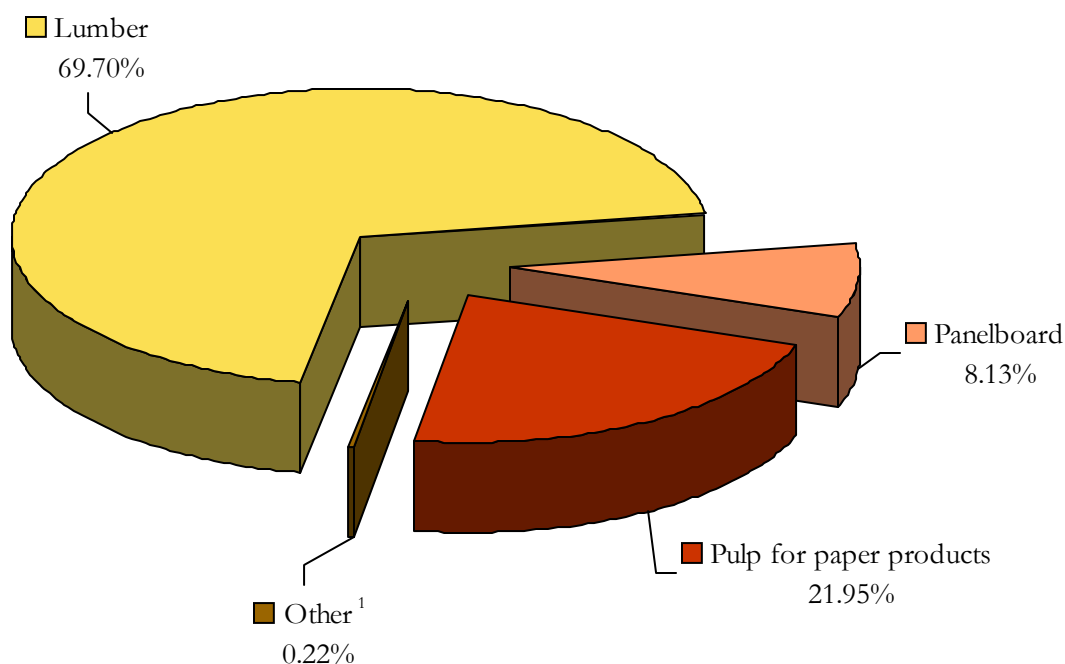
products, and 8.13 per cent into panelboard products. A small portion of volume (0.22%) was harvested for other products including round timbers (e.g. poles and posts), edged slabs, ties, lath, fuelwood and shakes/shingles.

Table 3. Timber volume harvested in Alberta by product category, 2010/11.¹

Product category	Total timber volume harvested (cubic metres)
Lumber ²	14,647,148
Panelboard	1,708,818
Pulp for paper products	4,612,714
Other ³	45,492
Provincial Total	21,014,172

¹Preliminary results. ²Coniferous lumber includes coniferous volumes used for pulp. ³Other includes volumes harvested for use as round timbers, edged slabs, ties, lath, fuelwood and shakes/shingles.

Figure 7. Percentage of timber volume harvested in Alberta by product category, 2010/11.



¹Other includes volumes harvested for use as round timbers, edged slabs, ties, lath, fuelwood and shakes/shingles.

Historical Trends

As shown in Table 4 and Figure 8, the provincial annual harvested volume remained consistent until 2004/05. The spike in 2005/06 reflects the high lumber and panelboard prices in 2004/05. The decreasing trend of harvesting from 2007/08

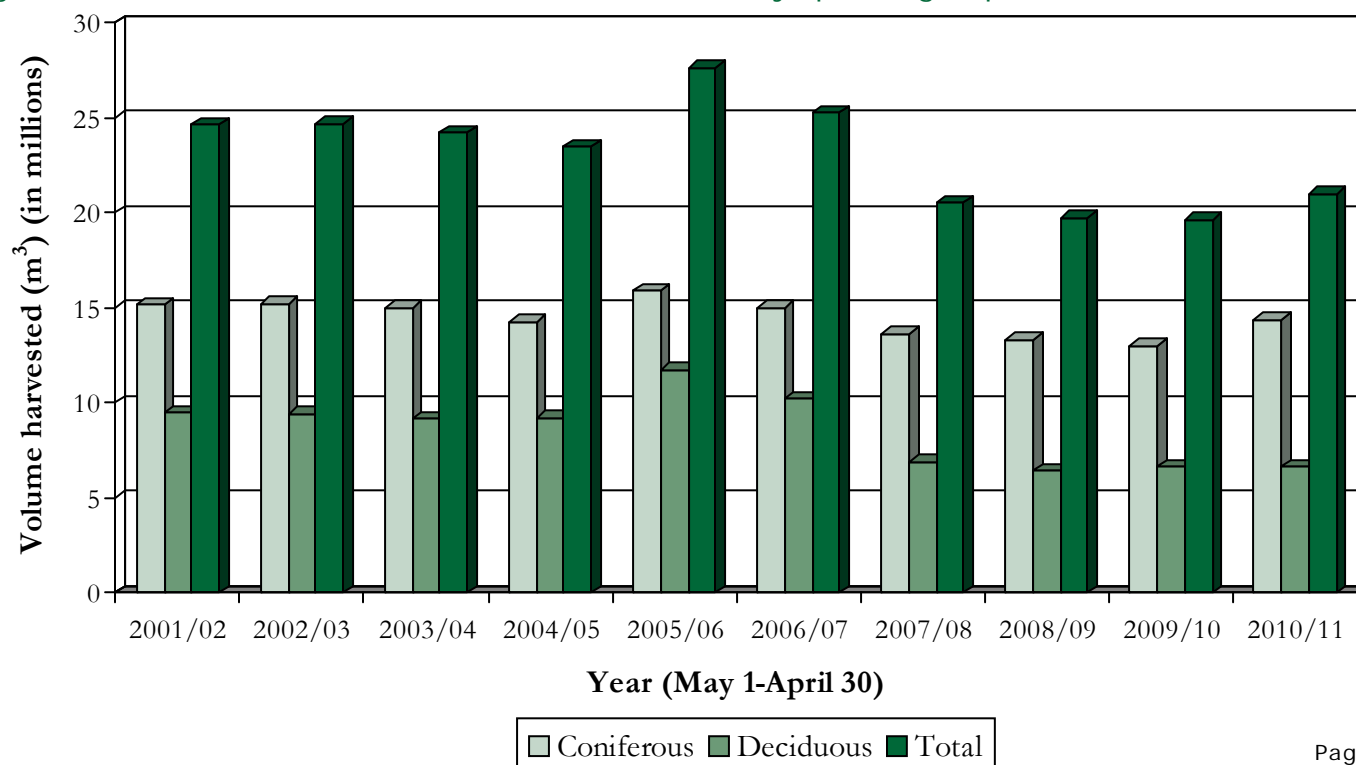
to 2009/10 seems related to the correction to the previous spiking of prices and the continued weakness of the new house construction activity in the United States. The significant increase in 2010/11 may indicate this trend is reversing.

Table 4. Annual harvested timber volume in Alberta, 2001-2011.

Year (May 1-April 30)	Coniferous volume harvested (cubic metres)	Deciduous volume harvested (cubic metres)	Total timber volume harvested (cubic metres)
2001/2002	15,148,241	9,470,305	24,618,546
2002/2003	15,235,939	9,422,759	24,658,698
2003/2004	15,003,369	9,179,545	24,182,914
2004/2005	14,241,294	9,222,451	23,463,745
2005/2006	15,879,414	11,727,867	27,607,281
2006/2007	15,007,256	10,232,119	25,239,375
2007/2008	13,619,500	6,895,750	20,515,250
2008/2009 ¹	13,291,219	6,428,790	19,720,009
2009/2010 ¹	13,009,669	6,632,794	19,642,463
2010/2011	14,382,484 ^P	6,631,688 ^P	21,014,172

¹Excludes any harvested volume that was exported for processing by mills outside Alberta. ^PPreliminary results.

Figure 8. Annual timber volume harvested in Alberta by species group, 2001-2011.



Future Outlook

Harvest volume levels are related to market conditions, such as the housing market. Figure 9 shows examples of lumber products produced in Alberta that are affected by the housing market.

The trend of lower harvest levels appears to have bottomed out as shown by improvement of the timber harvested volume in 2010/11 (Table 4).

Figure 9. An example of lumber products affected by the housing market.

