The Timber Supply Review

British Columbia’s timber supply review (TSR) program began in 1992 to update the understanding of timber supply in each of the province’s 38 timber supply areas (TSAs) and 34 tree farm licences (TFLs). Based on an updated review of a management unit, the chief forester of British Columbia determines the allowable annual cut (AAC). The chief forester must determine the AAC for each TSA and TFL every 10 years. About 85% of the timber harvested within British Columbia is from TSAs and TFLs. The AACS for Community Forest Agreements, First Nations Woodland Licences, and Woodlots are determined by other ministry representatives.

What is an Allowable Annual Cut?

The AAC is the maximum amount of timber that the chief forester determines is reasonable to harvest from the TSA or TFL, usually expressed in cubic metres. This harvest level is typically expected to be in place for 10 years. Once the chief forester has set the AAC level, the Minister of Forests, Lands and Natural Resource Operations allocates the AAC to the general types of forest licences. The minister’s apportionment sets the direction for how the ministry will manage existing multi-year licenses and, if necessary, create new harvesting opportunities.

The term “allowable annual cut” is also used to describe the amount of timber that can be harvested under an individual licence.

Chief Forester’s Considerations

Determining the AAC for the Crown managed forest land of British Columbia is primarily the responsibility of the chief forester. This is one of the chief forester’s most important roles because it affects local and provincial economies and the environment—now and in the future.
Under Section 8 of the *Forest Act* the chief forester must consider both information about the land base that includes forest composition and management and about objectives for that land base, the region, and the province.

Some of these factors can be readily measured and analysed while others cannot. Ultimately, the chief forester’s determination is an independent professional judgement based on the best available information at the time of his decision. **The chief forester is independent of the political process**, and is not directed by the Minister of Forests, Lands and Natural Resource Operations when determining an AAC.

**Timber Supply Review Objectives**

The main objectives of the TSR for a TSA or TFL are:

- To identify the economic, environmental and social information that reflects current forest management practices — including their effects on short- and long-term timber supply;
- To provide the chief forester with information to use when determining an AAC that will apply for the next 10 years; and
- To identify where improved information is required for a future AAC determination and other forest management decisions.

**Timber Supply Review Process**

The TSR process varies depending on the complexity of the information or issues associated with either a TSA or TFL. In general, a TSR consists of three stages.

The first stage is information sharing and gathering. A data package (sometimes called an information package) is the main product. The data package describes the inventory and management information and timber supply analysis assumptions that are believed to best reflect current forest management for use in the timber supply analysis. The data package is made available for public review and comment and First Nations consultation.

The second stage is the timber supply analysis. The analysis generally follows the data package but will differ due to public and First Nations input in response to the data package or received during consultation, improved information since the data package, and considerations that occur during analysis. The major results of the analysis are presented as a Public Discussion Paper, which is made available.
for public review and comment and First Nations consultation.

The third stage is the chief forester’s AAC determination. In this stage the chief forester considers not only information provided through the data package and timber supply analysis but also information, objectives, and uncertainties that were unavailable or could not be quantified. This includes all of the input from the public review and First Nations consultation. When the chief forester announces the new AAC, a rationale document is released that provides a description of the new AAC, explains how the factors required under Section 8 and, where appropriate, the input received from the public and First Nations, were considered, and identifies where new information is required.

Following the chief forester’s AAC decision, the Minister of Forests, Lands and Natural Resource Operations apportions the volume to license types based on a disposition plan prepared by the regional executive director.

In situations where the risks associated with the AAC are relatively low, e.g. limited availability of new information, low harvest levels etc. the AAC decision may be postponed for up to five years. This decision is made by the chief forester and requires consultation. However, where a postponement has already been made or where there is some uncertainty but risks are still relatively low, a condensed TSR process may be used. For example, a data package and timber supply analysis may be prepared and presented at the same time.

**What is Timber Supply**

Timber supply is the amount of timber that is forecasted to be available for harvesting over a specified time period and under a particular management regime.

Timber supply is the result of the condition of the existing forest, the rate of growth of the existing and harvested forest, how the forest is managed for timber and other resource values, and choices around the rate of harvest. Management such as for visuals, wildlife, watersheds, etc. may reduce the rate at which timber can be harvested and thus the overall timber supply.

Timber supply is often characterized by the short-, mid-, and long-term levels. The long-term levels typically reflect the maximum harvest levels available given the management constraints. The short-term harvest levels reflect the current forest inventory and may be higher than the long-term where the existing stands have accumulated volumes (though at a slower rate) over a long time (i.e., old stands).

The above figure exemplifies that different harvest flows are possible for the same timber supply. These differences are primarily the result of how the harvest of the existing forest inventory is spread out.

Timber supply is often forecasted using a forest estate model. Such models use available inventory, growth and yield, and management information to identify harvest levels and vary.
in complexity in how information is used and harvest levels determined.

**What is Current Management?**

Current management is based on the current legal framework, legally-established land use objectives and demonstrated forest management practices.

Forestry legislation and the legal objectives set by government provide direction for forest management planning and operational requirements for forest management. These requirements, in conjunction with biophysical and economic factors, influence where, how much and what species are harvested. Information about the harvest “footprint”, actual harvest level and species profile is often based on approved forest stewardship plans and cutting permits, as well as harvest billing information.

Land use plans provide guidance to government on the values balance desired by local communities, First Nations, and stakeholders. Government may or may not have established this guidance as legally required land use objectives. As described in the chief forester’s guiding principles, the chief forester will not speculate on land use decisions that have yet to be made by government. Consequently, unless changes are expected to occur before the chief forester’s AAC determination, only the objectives already set by government are used in the TSR. Timber supply analysis in support of land use planning or Treaty negotiation happens outside of the TSR.

**Why does Timber Supply and Allowable Annual Cut Change?**

The observed timber supply can change from a previous TSR. This change can occur for many reasons such as improved information, changes in management objectives, and different economic conditions.

Specific examples of change are:

- A new forest inventory may suggest more or less volume available from the land base.
- Harvesting some forests that were previously unprofitable may be feasible because the price of wood products has increased.
- Land base has been removed from the TSA or TFL for other tenures such as a community forest.
- New objectives are set for the management of a wildlife species such as caribou.

Historical increases in AAC have often been due to changes in the merchantability of forests.
even while other forest management objectives have increased the constraints on timber harvesting.

**Strategic versus operational modelling?**

For the TSR, the timber supply analysis is primarily strategic in nature and is the product of a computer model.

The area that is assumed to be legally, biophysically and economically available for timber harvesting in the timber supply analysis is called the “timber harvesting land base”. However, just because an area is included in the timber harvesting land base does not mean that the area will actually be harvested. Conversely, it is possible that areas outside of the timber harvesting land base may in reality be harvested.

The model enables the identification of a timber harvest flow at a TSA or TFL level. However, while the model identifies specific forest stands for harvest, the sequence of harvest of these stands does not likely match operational reality.

Interpretation of the harvest patterns generated by a computer model should be in the context that many actual harvest patterns are possible and the one generated by the model is only one. The actual pattern of harvest is determined by the licensees, within the constraints required under legally-established land use requirement and natural resource legislation.

**Further Information**

To learn more about the TSR process please visit the web site of the Forest Analysis and Inventory Branch of the Ministry of Forests, Lands and Natural Resource Operations at [http://www.for.gov.bc.ca/hts/](http://www.for.gov.bc.ca/hts/) or contact:

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