



# Golden Timber Supply Area

Public Discussion Paper

August 1998

# Introduction

The British Columbia Forest Service is reviewing the timber supply for all timber supply areas\* (TSAs) and tree farm licence (TFLs) areas in the province. This review examines the impacts of current forest management practices on the timber supply, economy, environment and social conditions of the local area and the province. Based on this review, if necessary, the chief forester may adjust the allowable annual cut (AAC) for the Golden TSA.

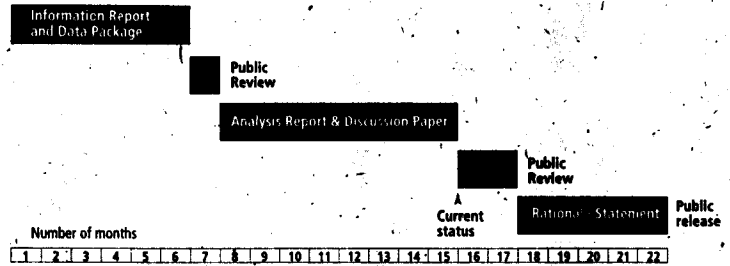
By law, the chief forester must review and set new AACs for all TSAs and TFLs every five years. The objectives of the Timber Supply Review are to:

- identify relevant economic, environmental and social information based on current forest management practices including their effects on the short- and long-term timber supply
- identify where improved information is required for future timber supply forecasts
- provide the chief forester with information to make any necessary adjustments to the AACs for the next five years

## Timber Supply Review in the Golden TSA

The Golden TSA *Data Package* and *Information Report* were released in September 1997. Following this, the documents were reviewed by licensees, the public and government agencies. The B.C. Forest Service has now completed the *Golden Timber Supply Area Analysis Report* which is summarized in this discussion paper. The objectives of this document are to provide British Columbians with an overview of the timber supply review and forecasts for the Golden TSA and to encourage them to provide comments during the 60-day public review period. Public comments will be accepted until October 26, 1998.

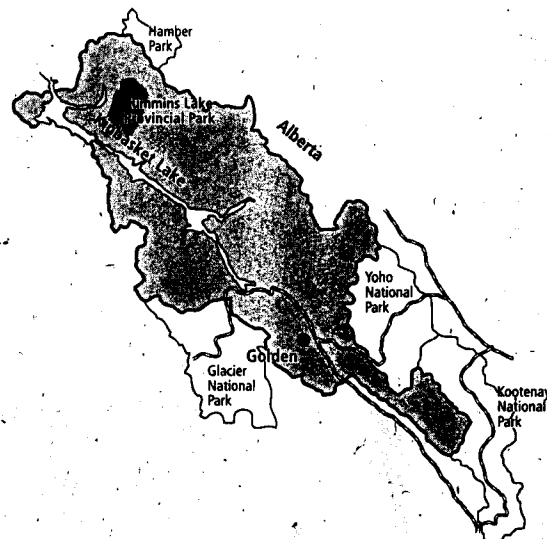
Before setting a new AAC, the chief forester will review all relevant reports and public input. The chief forester's determination will be outlined in a rationale statement which will be available, along with the *Summary of Public Input*, to the public. Following the release of the AAC determination by the chief forester, the minister of forests will apportion the AAC to the various licences and programs.



*Figure 1.*

*Review process for the Golden TSA*

## Description of the timber supply area



The Golden TSA is situated in southeastern B.C. and is administered by the Columbia Forest District. The TSA covers approximately 920,000 hectares and includes the community of Golden. Approximately 5,856 people live in the Golden TSA, of which, approximately 4,000 live in the town of Golden.

### First Nations

The Golden TSA is within the traditional territory of the Ktunaxa Nation and the Shuswap Nation. The Ktunaxa Kinbasket Tribal Council has submitted a comprehensive land claim which covers the south-east corner of B.C., including the Golden TSA. The Ktunaxa Kinbasket Tribal Council currently has a traditional-use site inventory underway. There are no First Nations reserves or communities within the TSA.

\*A timber supply area is an integrated resource management unit established in accordance with section 7 of the Forest Act.

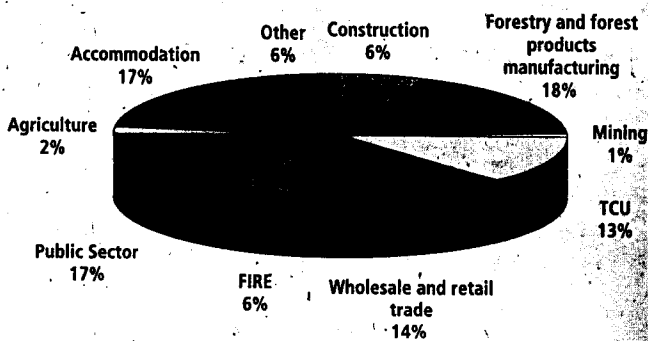
## Forest resources

The forest industry provides an important source of revenue and employment in the Golden TSA. Other significant resources include tourism and recreation. The mountainous features of the Golden TSA, combined with a climate affected by both coastal and continental influences, create a diverse forested environment which provides habitat for a wide variety of wildlife species including: grizzly bear, moose, elk, mule deer, bighorn sheep, mountain goat and mountain caribou.

## Socio-economic profile

### Regional economy

Golden's economy is highly reliant on the forest industry. Information from the 1996 Census indicates that the forest sector accounted for 18 per cent of the TSA's experienced labour force (Figure 2). Accommodation accounted for a further 10 per cent of the labour force, indicating that tourism also plays an important role in the TSA's economy. The public sector, wholesale and trade are also important employers of the TSA's workforce. Other important sectors are transportation, communications and utilities; due to the community's position on national east-west transportation routes.



**Figure 2.**

*Golden TSA - Experienced labour force by Sector, 1996*

*SOURCE: 1996 Census*

*FIRE - finance, insurance, real estate and other business services.*

*TCU - transportation, communications and utilities. Other employment includes service sector jobs not allocated elsewhere.*

## Summary of Local and Provincial Economic Impacts

(figures based on the current AAC of 535,000 cubic metres which excludes woodlots)

	TSA	Provincial
Direct employment (person years)	561	717
Total employment (person years)	840	1,520
Total employment income (\$1996 millions per year)	35.4	59.8
Provincial government revenues (\$1996 millions per year)	na	16.4

**Figure 3.**

*Economic Summary*

Figure 3 illustrates the potential contribution of the forest industry associated with the Golden TSA to both the regional and provincial economies.

Note: over the past five years, the actual annual harvest level has averaged 407,000 cubic metres.

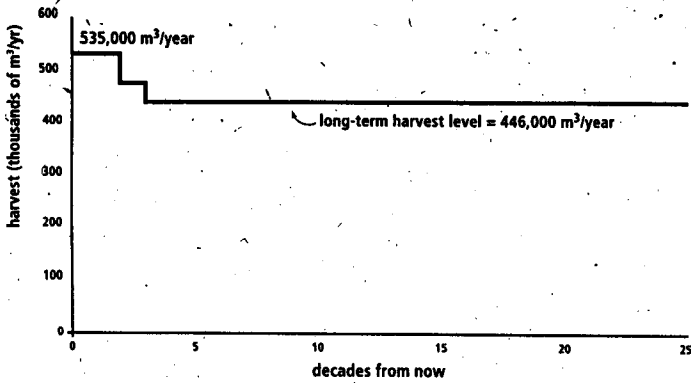
### Current allowable annual cut

On August 31, 1994 the chief forester reduced the AAC by 17 per cent to 535,000 cubic metres (excludes 5,000 cubic metres for woodlots) from 650,000 cubic metres. This decision preceded the Kootenay-Boundary Land-Use Plan and Kootenay-Boundary Land-Use Implementation Strategy released by government in 1995 and 1997 respectively. Land-use planning decisions regarding forest practices which are implemented and protected areas that have final approval from government are reflected in this timber supply review.

## Timber supply forecasts and areas of uncertainty

A timber supply computer model is used to project several possible timber supply forecasts for the next 250 years. One of these forecasts is the base case forecast which illustrates the effect of current forest management on timber supply. It is not an AAC recommendation, but rather, it is one of many sources of information that the chief forester will consider when setting the AAC. The base case forecast presented in this report is for discussion and comparative purposes and due to areas of uncertainty, the AAC determined by the chief forester may be greater or less than the base case forecast.

The base case timber supply forecast for the Golden TSA indicates the current AAC of 535,000 cubic metres can be maintained for up to 20 years without requiring substantial future harvest level reductions, or creating severe future timber disruptions. Twenty years from now, the rate of harvest is projected to decline by 10 per cent and then a further 7.5 per cent in the following decade to the long-term harvest level of 446,000 cubic metres per year.



**Figure 4.**  
Base case timber supply forecast

It is important to note, that the current harvest profile (the types and ages of stands harvested) can only be maintained for a maximum of 20 years. Analysis indicates that if this profile is harvested for more than 20 years, there will be significant shortfalls in timber supply in the long term. In addition, continued harvesting of this specific profile could result in further reductions in short-term timber supply than is shown in several of the sensitivity analyses.

## Sensitivity Analyses

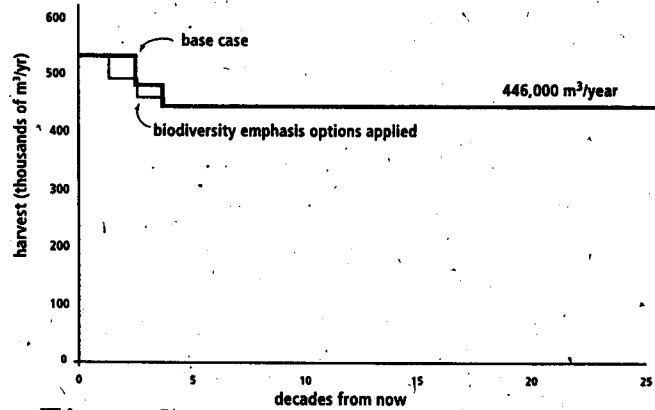
Since forests are complex and constantly changing, timber supply analysts evaluate the impacts on timber supply due to uncertainty about variables in the inventory information and management practices. These variables are examined in sensitivity analyses which the chief forester will consider in determining an AAC. The results of the sensitivity analyses may indicate that the timber supply may be less or more than projected in the base case forecast.

In the Golden TSA, due to the implementation of new forest practices, new information and changing markets, a number of sensitivity analyses were undertaken to examine the stability of the timber supply. For example, changes in biodiversity assumptions and minimum harvestable ages resulted in changes in the short-term harvest level. Some of the key sensitivity analyses conducted in the timber

supply analysis are listed below. For a complete listing, please refer to the *Golden Timber Supply Area Analysis Report*.

## Landscape Level, Biodiversity Requirements

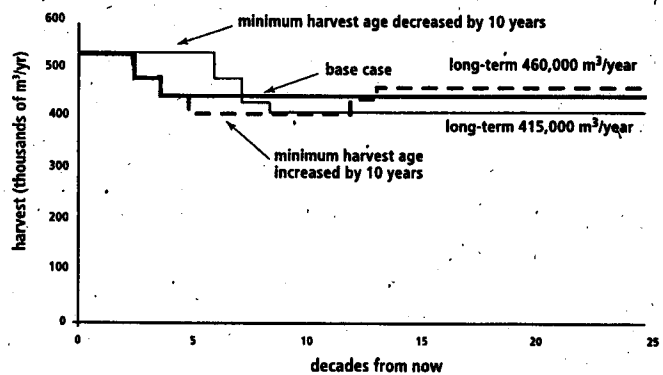
Some details regarding forest practices for managing landscape-level biodiversity are still being reviewed. A sensitivity analysis was completed that examined the potential impacts to timber supply from designating specific biodiversity emphasis options for each drainage area rather than averaging the biodiversity requirements over the entire TSA.



**Figure 5.**  
Biodiversity Options

## Uncertainty in Minimum Harvestable Ages

Minimum harvestable ages are based on attaining a minimum harvestable volume per hectare and an age that is near the maximum growth period. However, assessing timber volumes and quality that will meet the needs of the current market is subject to some uncertainty and therefore a sensitivity analysis was completed which examined the potential timber supply impacts. When minimum harvestable ages are increased or decreased, there are significant changes in the both short- and long-term harvest level.



**Figure 6.**  
Uncertainty in minimum harvestable age

## Uncertainty in Old-Growth Site Index

The results of a recent study—Old-Growth Site Index—show that the measured productivity of regenerated stands is generally higher than the productivity of ecologically identical old-growth stands. The most accurate assessments of site productivity come from stands between 30 and 150 years old. Currently, about 38 per cent of the Golden TSA timber harvesting land base has stands within this age range. Therefore a substantial area lies outside the range that provides accurate estimates. A sensitivity analysis based on the results of this study, shows there is no impact on short-term timber supply; however, there is a significant impact in the long-term.

## Implications of changes in the AAC

### Environmental implications

Current forest management follows the standards set in the Forest Practices Code and several strategies described in the Kootenay-Boundary Land Use Plan. These standards and strategies manage for a range of critical biodiversity and wildlife values in the Golden analysis area. About 44 per cent of the forested area is not considered available for timber harvesting and will provide for many environmental values. On the timber harvesting land base, about 41 per cent is managed for wildlife concerns and a further 15 per cent is managed for watershed and visual quality concerns. These resource management guidelines combined with the forested area outside of the timber harvesting land base will aid in the maintenance of critical forest habitats for many species.

### Community implications

The implication of changes in the AAC for local communities is an important consideration in the Timber Supply Review. Communities within the Golden TSA are highly reliant on the forest sector. If the current AAC of 535,000 cubic metres was being fully harvested and processed, it would support approximately 717 person years of direct and 803 person years of indirect and induced employment in the province. The base case forecast indicates a stable timber supply in the first two decades. Not until the third decade, or after twenty years, would the harvest decline and affect employment levels.

Recently, the actual harvest from the Golden TSA has been below the AAC. This means that if the AAC were maintained at 535,000 cubic metres, the potential exists for more employment, or more stable employment and a longer work year for those not working full time.

## Your input is needed

Establishing the AAC is an important decision which requires well-informed and thoughtful public input. Feedback is welcomed on any aspect of this discussion paper, the *Golden Timber Supply Area Analysis Report* and other issues related to the timber supply in the Golden TSA. Forest Service staff would be pleased to discuss questions or concerns you may have that would help you prepare your response. Please mail your comments to the forest district manager at the address below. Your comments will be accepted until October 26, 1998.

You may identify yourself on the response if you wish. If you do, you are reminded that responses will be subject to the *Freedom of Information and Protection of Privacy Act* and may be made public. If the responses are requested, personal identifiers will be removed before the responses are released.

A summary of public comments will be attached to the rationale and will be available from the district officer when the chief forester's AAC determination is announced.

*For more information contact and/or mail your comments to:*

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Columbia Forest District  
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Phone: (250) 837-7611 Fax: (250) 837-7626 or  
electronically mail to: [darcy.monchak@gems4.gov.bc.ca](mailto:darcy.monchak@gems4.gov.bc.ca)  
or visit our web site at <http://www.for.gov.bc.ca/tspb>

## The Chief Forester's Responsibility

Determining the allowable annual cuts (AACs) for public forest lands in British Columbia is the responsibility of the province's chief forester. Section 8 of the *Forest Act* requires the chief forester to consider the following factors:

1. The rate of timber production that may be sustained from the area, taking into account:
  - the composition of the forest and its expected rate of growth
  - the time in which the forest will become re-established
  - silviculture treatments, including reforestation
  - standards of timber utilization
  - constraints on the amount of timber that may be produced due to use of the forest for other purposes.
2. The short- and long-term implications to the province of alternative rates of timber harvesting from the area.
3. The nature, production capabilities and timber requirements of established and proposed processing facilities.
4. The economic and social objectives of the Crown for the area, region and province—as expressed by the Minister of Forests.
5. Abnormal insect or disease infestations, and major salvage programs planned for the timber on the area.

Some of these factors can be measured and analyzed—others cannot. Ultimately, the chief forester's determination is an independent professional judgment based on the best available information. By law, the chief forester is independent of the political process, and is not directed by the minister of forests when determining AACs. In these determinations, the chief forester considers relevant information from any source, including interest groups. However, he cannot allow these determinations to be inappropriately influenced by the advocacy efforts of one group.

## Why the current AAC may be higher than the long-term harvest level.

Some concern has been expressed that the AACs are higher than the long-term harvest level. There are two main factors which explain this difference:

- In the short term, harvesting takes place in older forests which have accumulated high timber volumes by growing for a long time. Future harvesting on the same sites will take place in second-growth forests at younger ages, yielding lower volumes per hectare.
- Where the long-term harvest level is significantly below the current AAC, the chief forester's strategy is to phase in the lower level over several determinations to allow communities which rely on the forest sector to avoid sudden economic disruptions and plan for the future—provided the long-term harvest level is not jeopardized.