

**Timber
Supply
Review**

Strathcona Timber Supply Area

P u b l i c D i s c u s s i o n P a p e r

February 1999



**BRITISH
COLUMBIA**

Ministry of Forests

Introduction

The British Columbia Forest Service is reviewing the timber supply for all timber supply areas* (TSAs) and tree farm licences (TFLs) 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 Strathcona 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
- to identify where improved information is required for future timber supply forecasts
- to provide the chief forester with information to make any necessary adjustments to the AACs for the next five years

Timber Supply Review in the Strathcona TSA

The Strathcona TSA *Data Package and Information Report* were released in December 1997. Following this, the documents were reviewed by licensees, the public and government agencies. The BC Forest Service has now completed the *Strathcona TSA 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 Strathcona TSA and to encourage them to provide comments during the 60-day public review period. Public comments will be accepted until April 26, 1999.

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.

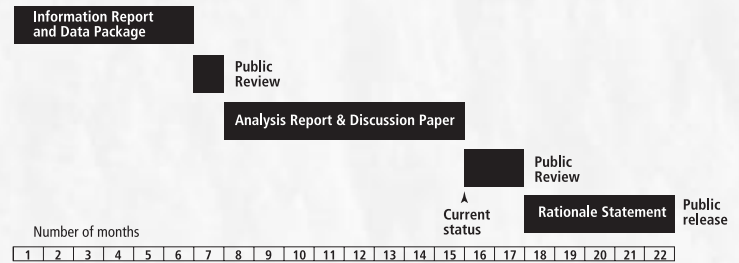
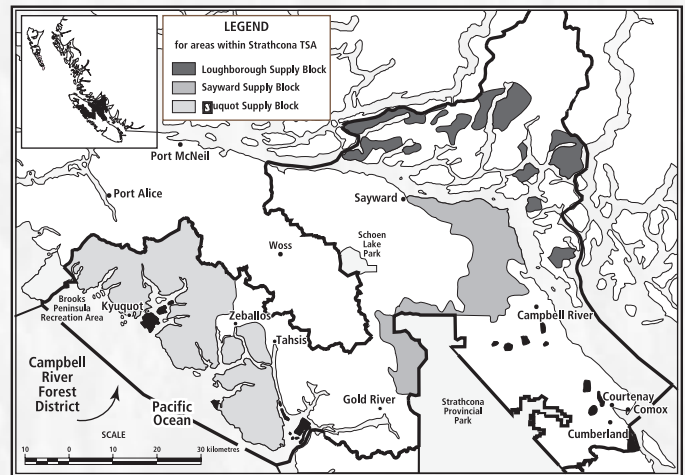


Figure 1.
Review process for the Strathcona TSA

Description of the TSA



The Strathcona TSA is situated on central Vancouver Island and adjacent areas on the B.C. coastal mainland. It is administered by the Campbell River Forest District office in Campbell River. The TSA covers approximately 705,000 hectares and includes the communities of Campbell River, Courtenay, Comox, Gold River, Tahsis, Zeballos, Sayward, Cumberland and Kyuquot. In 1996, the population of the forest district was 93,620, an 18 per cent increase from 1991. This growth was concentrated in eastern communities, with western ones showing population declines.

Forest land resources

Numerous natural resources are associated with the forest land base. In the Strathcona TSA these include forest products, significant wildlife habitat, and recreation and tourism amenities.

Due to the variation in topography and climate, the Strathcona TSA contains one of the richest and most diverse arrays of wildlife in Canada. More than 300 species of migratory and resident birds, 45 species of

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

mammals and 13 species of amphibians and reptiles occur in the TSA. The sheltered, nutrient-rich estuaries provide critical habitat for many species, and the many rivers and streams of the TSA support populations of salmon, trout, char and steelhead.

Recreational and tourism values and uses are high due to the rapid population growth, exceptional fishing opportunities, natural scenery, and the presence of several provincial parks.

Socio-economic profile

Regional economy

The economy of the Strathcona TSA and surrounding Campbell River Forest District is becoming increasingly diversified; however, there is a distinct difference between the eastern and the less populated, more forestry dependent, western portion.

Forestry, consisting of logging, forestry services, and forest products manufacturing, is the largest combined industrial sector in the Strathcona TSA. There are approximately 16 primary processing mills operating in the area, the largest of which is the Fletcher Challenge pulp and paper mill north of Campbell River employing over 1,200 people. There are a variety of other mills including lumber mills, shake and shingle mills, and a pole and post mill. These mills process timber from the Strathcona TSA and other areas on Vancouver Island and the Lower Mainland.

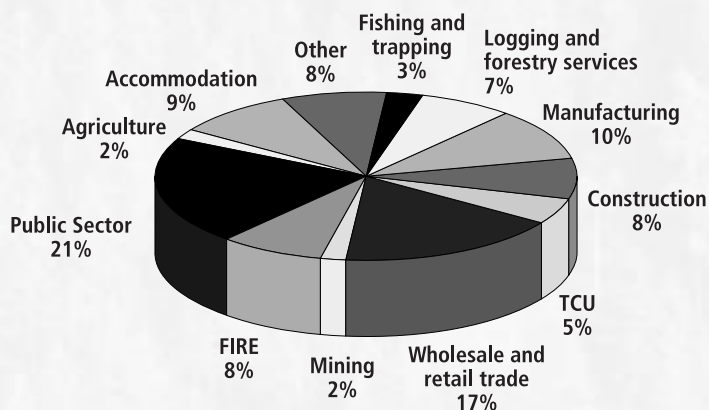


Figure 2: Experienced labour force by sector, Campbell River Forest District, 1996.

Source: 1996 Census of Canada.

Note: TCU is transportation, communications and utilities. FIRE is finance, insurance, real estate and other business services. Other includes personal services not elsewhere allocated.

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

Summary of Local and Provincial Economic Impacts

(Figures based on current AAC of 1.42 million cubic metres)

	TSA	Provincial
Direct employment (person years)	728	1859
Total employment (person years)	1307	4184
Total employment income (\$1997 millions per year)	55.4	170.4
Provincial government revenues (\$1997 millions per year)	n.a.	66.4

Figure 3. Economic Summary

Current allowable annual cut

In January 1996, the chief forester reduced the AAC in the Strathcona TSA to 1.42 million cubic metres from 1.69 million cubic metres. This includes a partition of 16,000 cubic metres for deciduous (broad-leaf) tree species. The current timber supply review incorporates a number of new parks established as a result of the Vancouver Island Land-Use Plan, such as the Brooks-Nasparti addition, Tahsish-Kwois, and Main Lakes Chain.

Land Use Planning

The Vancouver Island Land-use Planning process covers most of the Strathcona TSA. As part of the planning process, the Vancouver Island Resource Targets project was initiated to define the boundaries and resource management objectives and strategies for general management and enhanced forestry zones. The same project has developed objectives for special management zones. In 1998, technical recommendations for these zones were released for public review. If these recommendations receive government approval before the chief forester makes an allowable annual cut determination, then they will be considered in the timber supply review.

The Central Coast Land and Coastal Resource Management planning process began in the summer of 1997, and is expected to be substantially complete by spring of 2000. The management plan covers a large area of British Columbia's central coast, including the Loughborough Supply Block in the Strathcona TSA. Once the plan receives government approval and is implemented, it will be considered in future timber supply reviews.

Timber supply forecasts

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. The base case is not an AAC recommendation, but rather, it is one of many sources of information 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 Strathcona TSA begins at 1.25 million cubic metres per year (12 per cent below the current AAC). At 10 and 20 years from now, two further 12 per cent declines occur, projecting a medium-term timber supply level of 970,000 cubic metres. This is maintained for 80 years, and then rises 10 per cent to the long-term harvest level of 1.07 million cubic metres about 100 years from now.

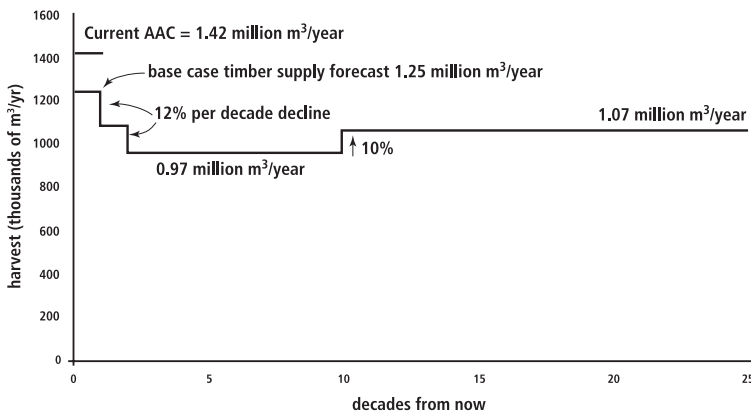


Figure 4. Base case timber supply forecast, 1999

Some factors contributing to the short-term decline are reductions in available productive forest due to the completion of terrain stability mapping and changes in forest management since the last analysis (including the Forest Practices Code and the creation or expansion of several parks). These are moderated by reduced minimum harvestable ages for the most productive stands, the addition of alder stands to the timber harvesting land base, changes in visual quality objectives, and the use of stands outside the timber harvesting land base to meet old-growth requirements.

Assumptions for visual quality guidelines changed from the last determination to better reflect operational flexibility. Also, the minimum harvestable ages changed from the last timber supply review.

Previously it was based on the age at which stands achieved 95 per cent of their maximum average annual growth. In this analysis, the minimum harvestable age is instead based on achieving 350 cubic metres per hectare. The analyses indicate that short-term timber supply is not affected by changing the minimum harvestable ages to the previous definition, although medium- to long-term supply may be.

Sensitivity analyses: examining uncertainty

Since forests are complex and constantly changing, timber supply analysts assess how their timber supply forecast results might be affected by uncertainties in the inventory information and management practices. These uncertainties are examined in sensitivity analyses which the chief forester will consider in determining an AAC. The sensitivity analyses are useful for assessing how any changes in information or uncertainties and risks might affect timber supply.

In the Strathcona TSA, 13 sensitivity analyses were conducted to examine the stability of the timber supply. Some of the key sensitivity analyses are listed below. For a complete listing, please refer to the *Strathcona TSA Analysis Report*.

Uncertainty in alternative harvest flows

The base case timber supply forecast was chosen to avoid excessive changes in timber supply from decade to decade, and also to avoid significant timber shortages in the future. The analysis also examined an alternative harvest forecast (see below) which looked at maintaining the current AAC for another decade. This forecast is feasible under the base case management assumptions as many of the stands harvested in the short term are expected to be harvestable again before the rise to the long term

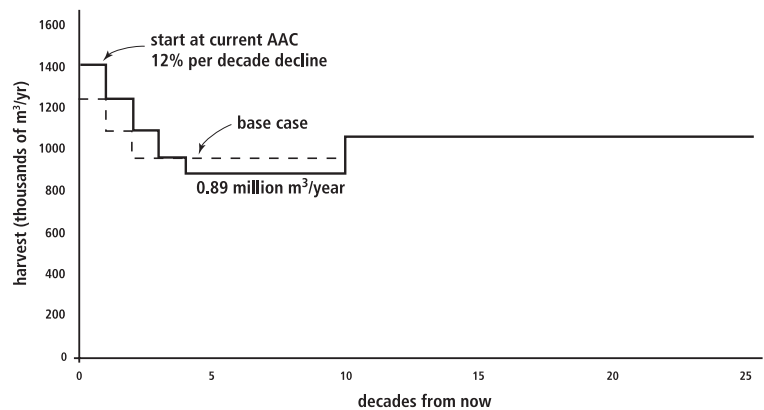


Figure 5. Alternative harvest flow, 1999.

harvest level. However, the mid-term level is lower and the resulting initial harvest level is not as stable as the base case.

Uncertainty in the estimated size of the timber harvesting land base

Uncertainty in the estimated size of the timber harvesting land base is due to factors such as fluctuations in timber prices, changes in harvesting and milling technology and new inventory information. For example, recent terrain stability mapping has shown additional area where timber is now considered to be unharvestable due to a moderate potential of landslides and erosion. Conversely, emerging markets may make some species more attractive for harvest.

If the timber harvesting land base has been over-estimated by ten per cent, then the initial harvest level would be about six per cent below the base case initial harvest level. However, if the timber harvesting land base were to increase in size by ten per cent, then the current AAC could be maintained.

Implications of changes in the AAC

Environmental Implications

Current forest management follows the standards set in the Forest Practices Code. These standards manage for a range of critical biodiversity and wildlife values. In the Strathcona TSA about 50 per cent of the forested area is not considered available for timber harvesting and will provide for many environmental values. Forested area both in and outside of the timber harvesting land base will aid in the maintenance of critical forest habitats for many species.

First Nations Implications

There are fourteen First Nations with territorial interests in the Strathcona TSA. There are five treaties representing eleven First Nations currently being negotiated in the area. The First Nations in the area have a strong dependence on the forest resources and many are employed in silviculture activities, harvesting and manufacturing in the TSA. Any loss of employment due to an AAC reduction would affect the First Nations community as unemployment levels are already high.

Community Implications

The implication of changes in the AAC for local communities is an important consideration in the

Timber Supply Review. If the AAC was reduced to 1.25 million cubic metres, as indicated in the timber supply analysis, then the AAC would support 220 less direct forestry person-years, of which 40 per cent are local residents. In addition, up to approximately 280 indirect person years could be affected across the province.

The economies of the eastern communities (Campbell River and Comox/Courtenay) are increasingly well-diversified, with recent growth in the service sectors. The western communities are far more dependent on resource extraction and processing, and therefore a declining timber supply, as projected, places these communities at greater risk. The need to shift a larger share of harvesting activity out of the Kyuquot timber supply block will further affect small, remote communities such as Kyuquot.

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 *Strathcona TSA Analysis Report* and other issues related to the timber supply in the Strathcona 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 April 26, 1999.

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 AAC rationale and will be available from the district office when the chief forester's AAC determination is announced.

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

District Manager
B.C. Forest Service
Campbell River Forest District
370 South Dogwood Street
Campbell River, B.C.
V9W 6Y7

Phone: (250) 286-9300 Fax: (250) 286-9490 or electronically mail to John.Andres@gems3.gov.bc.ca or visit our website at <http://www.for.gov.bc.ca/tsb>

Background Information Regarding TSR

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 to plan for the future—provided the long-term harvest level is not jeopardized.

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