



# **Strathcona TSA Timber Supply Analysis Public Discussion Paper**

**Forest Analysis and Inventory Branch  
Ministry of Forests, Lands and  
Natural Resource Operations  
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Ministry of  
Forests, Lands and  
Natural Resource Operations

## Introduction

The British Columbia (BC) Ministry of Forests, Lands and Natural Resource Operations (FLNR) regularly reviews the timber supply<sup>a</sup> for all timber supply areas<sup>b</sup> (TSA) and tree farm licences<sup>c</sup> (TFL) in the province. This review, the fourth for the Strathcona TSA, examines the impacts of current legal requirements and demonstrated forest management practices on the timber supply, economy, environment and social conditions of the local area and the province. Based on this review the chief forester will determine a new allowable annual cut<sup>d</sup> (AAC) for the Strathcona TSA.

By law (Section 8 of the *Forest Act*), the chief forester must review and set new AACs for all 38 TSAs and 34 TFLs every 10 years. The chief forester can postpone a timber supply review for up to five more years if the annual cut level is not expected to change significantly. The chief forester may also set a new harvest level earlier than 10 years to deal with significant changes in land use, information or to deal with abnormal situations such as damage from severe wildfires or catastrophic insect infestations.

The objectives of the timber supply review are to:

- examine relevant legal requirements, forest management practices, environmental and social factors, and input from First Nations, forest licensees and the public;
- set a new AAC; and
- identify information to be improved for future timber supply reviews.

This public discussion paper provides an overview of the timber supply review process and timber harvest forecasts for the Strathcona TSA. Prior to the chief forester's AAC determination for the TSA, further analysis may need to be completed and existing analysis reassessed as a result of input received during this review process.

Details about the information used in the analysis are provided in a data package (October 2012). The technical details of the timber supply analysis are available on request from FLNR, Forest Analysis and Inventory Branch. Contact information is provided at the end of this document.

Public comments are encouraged and will be accepted until the end of the 60-day review period, on February 6, 2015.

The actual AAC determined by the chief forester during this timber supply review may differ from the harvest forecasts, including the base case, presented in this public discussion paper as the chief forester must consider a wide range of information, some of which cannot be quantified. Ultimately, the chief forester's AAC determination is an independent, professional judgement based on the legal requirements set out in Section 8(8) of the *Forest Act*.

**<sup>a</sup>Timber supply**

*Timber supply is the amount of timber available for harvesting over a specified period of time.*

**<sup>b</sup>Timber supply areas (TSAs)**

*Timber supply areas are integrated resource management units established in accordance with Section 7 of the Forest Act.*

**<sup>c</sup>Tree farm licences (TFLs)**

*Tree farm licences are tenures that grant exclusive rights to harvest timber and manage forests in a specific area; may include private land.*

**<sup>d</sup>Allowable annual cut (AAC)**

*Allowable annual cut is the maximum volume of timber available for harvesting each year from a specified area of land, usually expressed as cubic metres of wood.*

Before setting a new AAC, the chief forester will review all relevant reports, and public and First Nations input. The chief forester will explain the AAC determination in a rationale statement that will be available to the public. Following the release of the AAC determination by the chief forester, the minister will apportion the AAC to the various licences and programs.

### **Current allowable annual cut**

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On July 28, 2005 the chief forester set the AAC for the Strathcona TSA at 1 217 000 cubic metres effective August 1, 2005.

Following implementation of Bill 24 under the *Parks and Protected Areas Statutes Amendment Act*, the chief forester reviewed information regarding the timber harvesting land base deleted from the TSA to establish the Cetan/Thurston Bay, Estero Basin, Gillard-Jimmy Judd Islands, Phillips Estuary and Yorke Island Conservancies. Based on this review, the chief forester concluded that these areas had contributed 6705 cubic metres per year to the AAC.

In 2011, following enactment of the *Maa-nulth First Nations Final Agreement Act* and the Maa-nulth Forest Compensation Interim Regulation, the Maa-nulth Treaty Settlement Lands were deleted from the Strathcona TSA. The chief forester reviewed the information regarding the timber harvesting land base removed from the TSA on this account and concluded that it had contributed 20 450 cubic metres to the AAC.

Based on the chief forester's assessment of the timber supply impacts associated with the new conservancies and Maa-nulth Treaty Lands, the AAC available for apportionment (effective AAC) is currently 1 189 795 cubic metres.

### **Description of the Strathcona TSA**

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The Strathcona TSA is located on central Vancouver Island and adjacent areas on the BC coastal mainland (Figure 1). It is administered by the Campbell River Natural Resource District. Excluding large bodies of water, treaty lands and other non-Crown land, area-based timber tenures, non-forest and parks and conservancies, the total area of productive forest in the Strathcona TSA is about 345 000 hectares. Parks excluded from the TSA that are either partially or wholly within the border of the TSA include: the Strathcona, Tahsish-Kwois and Brooks-Naspart Provincial Parks.

The TSA overlaps three biogeoclimatic zones: the Coastal Western Hemlock (CWH), Mountain Hemlock (MH) and Coastal Mountain-heather Alpine (CMA). The TSA's varied topography and climate support a rich variety of wildlife. Of particular importance are the old-growth forests of the CWH zone and the protected, nutrient-rich estuaries that provide critical habitat for over-wintering water birds, many species of mammals, and young salmon. Species of particular management concern are those that rely on the characteristics of old-growth forests because as they are harvested and converted to younger stands, fragmentation and loss of habitat may occur.

The TSA is divided into three timber supply blocks (TSB):

- The Kyuquot TSB on western Vancouver Island encompasses rugged marine coastline, with steep mountainous terrain, and deep river valleys and inlets of the Pacific Ocean.
- The Sayward TSB located on eastern Vancouver Island has terrain ranging from rugged mountains to marshy lowlands.
- The Loughborough TSB, which includes area on the mainland and the islands of Johnstone Strait, has terrain that varies from low-lying coastal islands to rugged mountains with glaciers and deep, narrow, forested valleys. It also corresponds to the southern portion of the Great Bear Rainforest—a region of temperate rainforest that stretches from Bute Inlet up to the northern Canada-United States border near Prince Rupert.

## First Nations

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Fifteen First Nations have traditional territories that overlap the Strathcona TSA. Ten of these First Nations also have reserve lands within the TSA, including: the Wei Wai Kum First Nation, We Wai Kai First Nation, Ehattesaht Tribe, Homalco First Nation, Ka:'yu:'k't'h/Che:k:tes7et'h' First Nation, K'omoks First Nation, Kwiakah First Nation, Mowachaht/Muchalaht First Nation, Nuchatlaht Tribe, and the Tlowitsis Tribe. The other five First Nations with traditional territory within the TSA are the Da'naxda'xw First Nation, Klahoose First Nation, Mamalilikulla-Qwe'Qwa'Sot'em First Nation, Namgis First Nation and the Sliammon First Nation.

Since the last TSR, the Maa-nulth First Nations have concluded the Maa-nulth Treaty. The treaty provides rights to harvest cultural cedar, fish, wildlife and migratory birds to each of the five Maa-nulth First Nations within the collective area of their traditional territories. The Maa-nulth First Nations are the Ka:'yu:'k't'h/Che:k:tes7et'h' First Nation in the Strathcona TSA, and the Huu-ay-aht First Nations, Toquaht Nation, Uchucklesaht Tribe and Ucluelet First Nation, located in the Arrowsmith TSA.

Treaty negotiations are ongoing with the Homalco First Nation, the K'omoks First Nation, and the Tlowitsis Tribe.

The Ministry of Forests, Lands and Natural Resource Operations has been communicating with First Nations about this timber supply review and intends to continue to fulfill its legal obligations to consult with First Nations in conjunction with the release of this public discussion paper.

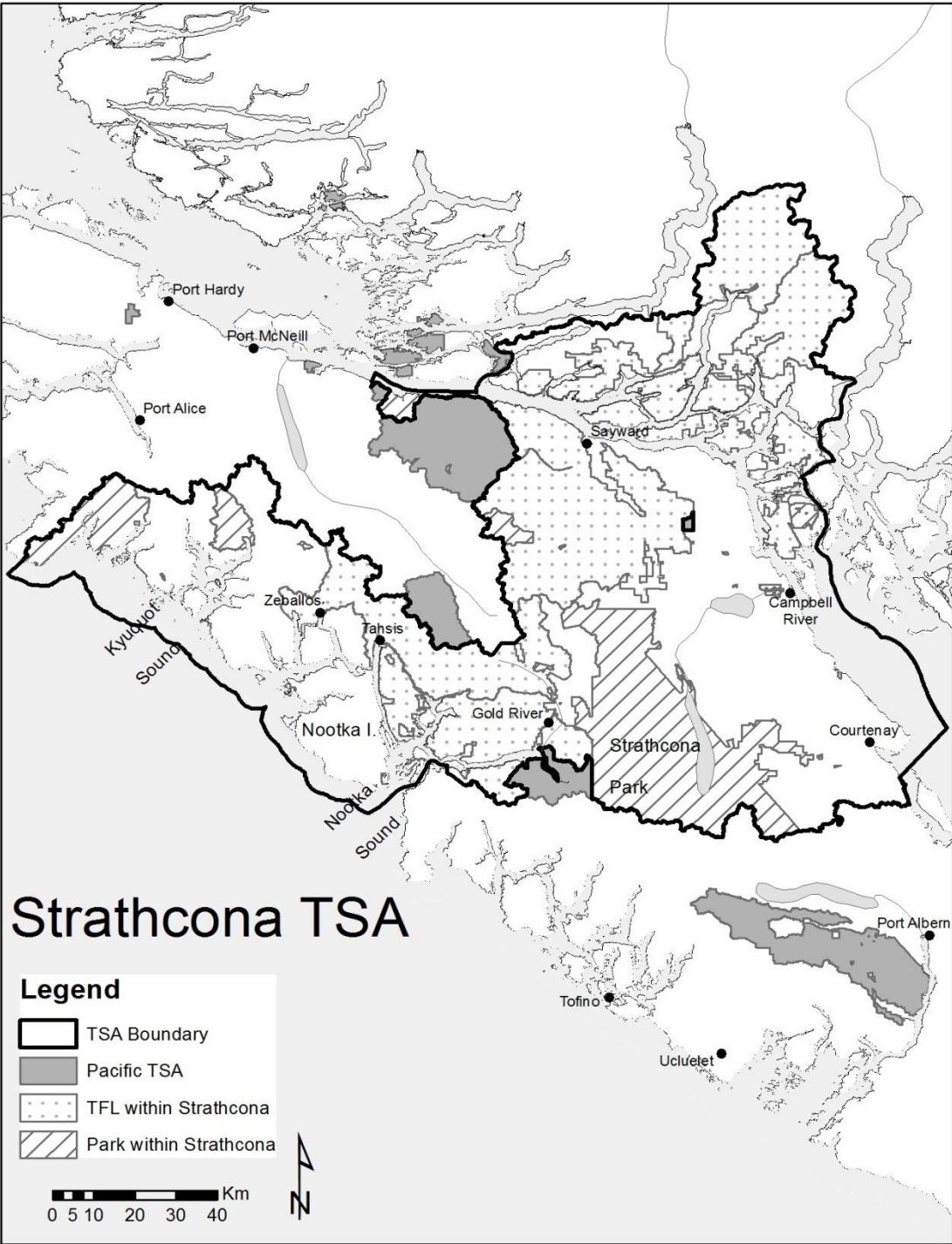


Figure 1. Map of the Strathcona TSA.

## Environmental values

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Current forest management is governed by the legislative requirements of the *Forest and Range Practices Act* (FRPA) and associated regulations and the land use objectives established by government. All forested lands, whether they contribute to timber supply or not, help to maintain critical habitats for many species. In the Strathcona TSA, about 53 percent of the CFLB is neither suitable nor available for timber harvesting.

More than 300 species of migratory and resident birds, 45 species of mammals and 13 species of amphibians and reptiles occur in the TSA. Native mammals include black-tailed deer, Roosevelt elk, black and grizzly bear, mountain goat, wolf, beaver, pine marten, wolverine and weasel. Native and migratory birds in the forests of the area include species identified as being at risk, such as marbled murrelets, northern goshawks, great blue herons and pileated woodpeckers. Adjacent marine habitats and estuaries support populations of Peale's peregrine falcons, bald eagles, trumpeter swans, harlequin ducks and over-wintering birds. In addition, protecting water quality and quantity is an important management objective in the TSA. Significant demands are placed on water resources for the maintenance of fisheries values and aquatic ecosystems for species such as coastal tailed frog, and red-legged frog.

This timber supply analysis reflects the current legal land use objectives and management practices designed to maintain biodiversity, wildlife habitat, visual quality, water quality, recreation areas, riparian areas, and protection of unstable terrain.

## Land use planning in the Strathcona TSA

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Timber supply reviews undertaken in support of AAC determinations are based on the land use objectives established by government and current forest management. The Vancouver Island Land Use Plan (VILUP) – applies to most of Vancouver Island. The Central Coast and North Coast Land and Resource Management Plans (LRMP) and subsequent Coast Land Use Decision and related legal orders apply to mainland coastal areas.

Legal objectives for the Sayward Landscape Unit were established by the VILUP Higher Level Plan Order issued under the *Land Act*. This order, which took effect in 2003, established legal requirements for the management of biodiversity and wildlife values, timber, scenic landscapes, recreation values, lakeshore and fisheries values, and drinking water.

In 2004, the Central Coast and North Coast Land and Resource Management Plans (LRMPs) delivered consensus land and resource management recommendations to the provincial government for implementing ecosystem based management (EBM) in the Great Bear Rainforest. Following consultation and government-to-government discussions with First Nations, the Coast Land Use Decision was announced in 2006.

By 2009, EBM was fully implemented and the initial 2007 Central and North Coast and South Central Coast land use orders were amended to reserve 50 percent of the natural amount of old forest in the plan area. A total of approximately two million hectares of protected areas were established, including 114 new conservancies, and 21 designated biodiversity, mining and tourism areas.

The entire Loughborough TSB lies within the Great Bear Rainforest.

Presently, the Province and First Nations, who are the decision-makers regarding implementation of the Great Bear Rainforest Agreements, are working to conclude a review of the land use orders to assess how these orders are being implemented and to improve them in order to “achieve low levels of ecological risk and high levels of human well-being, or failing that, deliver meaningful increments towards both”.

In January 2014 the five forest product companies and three environmental groups, who together form the Joint Solutions Project (JSP), made recommendations for revisions to the land use orders. These recommendations are being evaluated by the Province, Nanwakolas Council and Coastal First Nations. Following this evaluation, there will need to be public consultation and consultation with 12 other First Nations who have traditional territory in the Great Bear Rainforest.

The base case described in this discussion paper assumes forest management practices that are consistent with the current legal orders for the Central and North Coast and South Central Coast.

As in previous timber supply reviews, the information compiled during this review can be made available to support a variety of other processes, including land-use planning. In the event that new legal objectives are established following completion of the base case and prior to the chief forester’s AAC determination, sensitivity analyses will be used to assess the impact, if any, on the base case. Any changes in legal objectives that occur following the determination can be addressed in subsequent timber supply reviews or earlier if the chief forester thinks that that the changes could significantly affect timber supply.

## **Regional economy**

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The Strathcona TSA lies within the Comox-Strathcona Regional District. According to the 2011 Canadian Census, the total population of the TSA is approximately 75,500 residents, with the largest populations located in Campbell River (31,800), Courtenay (24,970) and Comox (13,490) and the smaller communities of Cumberland, Gold River, Kyuquot, Sayward, Tahsis and Zeballos.

The most recent economic dependency estimates provided by BC STATS show that the main sources of employment in the Strathcona TSA are the public sector, tourism and forestry. In 2006, the forestry and forest manufacturing sectors accounted for about 16 percent of the employment in the district. Since then, employment in the timber processing sector has decreased, with the largest impact due to the closure of Catalyst Paper’s Elk Falls pulp and paper facility in 2010.

Logs harvested in the Strathcona TSA are either processed domestically at coastal pulp mills, sawmills on the lower Mainland or by small custom-cutting mills on Vancouver Island. Last year about one-quarter to one-third of the timber harvested in coastal BC was deemed to be surplus to the needs of domestic processors and was sold for export. The level of log export fluctuates depending on local demand and global log markets.

Economic activity from aquaculture, commercial and recreational fishing, mining and increasing recreation and tourism opportunities are also important in the area.

## Forest management

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### Area available for timber harvesting

As part of the process used to define the timber harvesting land base (THLB)<sup>e</sup> in the timber supply analysis, a series of deductions are made from the TSA land base (Table 1). The total land area (excluding ocean and large water bodies) within the boundaries of the Strathcona TSA, is 1 355 968 hectares. After accounting for lands that are under area-based tenures, not Crown land or forested, the Crown Forest Land Base (CFLB)<sup>f</sup> is 345 271 hectares.

After further reductions for areas not suitable or available for timber harvesting because of ecological, economic or social considerations, the current THLB is 162,873 hectares, which is slightly larger than in 2005. Areas excluded from harvest include land base designated for EBM or protection of wildlife, riparian reserves, old growth values and archaeological sites, potentially or unstable terrain, inoperable conditions, and uneconomic stands or areas otherwise unsuitable for timber harvesting.

**<sup>e</sup>Timber harvesting land base (THLB)**

*The portion of the Crown forest land base (CFLB) that is managed for timber supply by the Ministry of Forests, Lands, and Natural Resource Operations where timber harvesting is both legally allowed and economically feasible, while meeting objectives for all relevant forest values, existing timber quality, market values and applicable technology.*

**<sup>f</sup>Crown forest land base (CFLB)**

*The forested area of the TSA that the provincial government manages for a variety of natural resource values. This excludes non-forested areas (e.g., water, rock and ice), non-productive forest (e.g., alpine areas, areas with very low productivity), and non-commercial forest (e.g., brush areas). The CFLB does include federal protected areas because of their contribution to biodiversity*



Table 1. Strathcona TSA netdown table

	Productive area (hectares)	Area (hectares)	% total productive forest area
<b>Total area</b>		<b>1,669,953</b>	
Ocean or large water body		313,985	
Maa-nulth Treaty Lands		6,211	
Non-Crown		207,097	
TFL and Woodlots		554,989	
Parks and Conservancies (forested area contributes to forest cover constraints)	103,104	224,674	
Non-forest		17,726	
Sub-total		1,324,682	
<b>Total productive forest area</b>		<b>345,271</b>	<b>100.0%</b>
<b>Reductions</b>			
Crown forest - not THLB	864	864	0.3%
Inoperable	67,491	66,979	19.4%
Unstable and potentially unstable terrain	55,251	29,484	8.5%
Problem forest types	4,060	2,816	0.8%
Low growing potential	56,600	27,896	8.1%
Recreation GAR	5,730	3,004	0.9%
Ungulate winter range and wildlife habitat areas	18,992	8,902	2.6%
Old growth management areas	15,112	1,265	0.4%
Archaeological sites	1,307	1,011	0.3%
Research areas and PSPs	1,442	1,174	0.3%
EBM grizzly bear habitat	613	310	0.1%
EBM red- and blue-listed plant communities	19,778	8,592	2.5%
Existing unclassified roads	80,681	11,781	3.4%
Riparian reserves and management zones	95,447	13,290	3.8%
EBM high value fish habitat	4,632	1,162	0.3%
EBM non-high value fish habitat	9,971	1,876	0.5%
EBM forest swamps	209	36	0.0%
EBM alluvial fans	2,502	621	0.2%
WTR requirements	1,335	1,335	0.4%
Total reductions		182,398	52.8%
<b>Current timber harvesting land base</b>		<b>162,873</b>	<b>47.2%</b>
<b>Future reductions</b>			
Future roads, trails and landings		6,067	1.8%
Future timber harvesting land base		156,806	45.4%

Current forest management must be consistent with the requirements of the FRPA and associated regulations that are designed to maintain a range of biodiversity and wildlife values. All forested lands, whether they contribute to timber supply or not, help to maintain critical habitat for many species. Therefore, the timber supply analysis includes constraints or forest cover requirements for biodiversity, visual quality, wildlife habitat, community watersheds, recreation features, riparian management and protection of environmentally sensitive areas. These requirements are applied to the CFLB in the timber supply analysis.

**Forest composition**

The dominant tree species in both the CFLB and THLB (Figure 2) are hemlock and balsam (together referred to as “hembal”), western redcedar and yellow cedar (together referred to as “cedar”), Douglas-fir (“fir”) and small amounts of alder and spruce. The figure below shows that following the netdown, the composition (profile) of the mature volume in the CFLB changes. The proportion of hembal decreases by seven percent, while the proportion of fir increases by five percent. The contribution of cedar and alder is increased by one percent for both species, while the contribution of spruce remains the same.

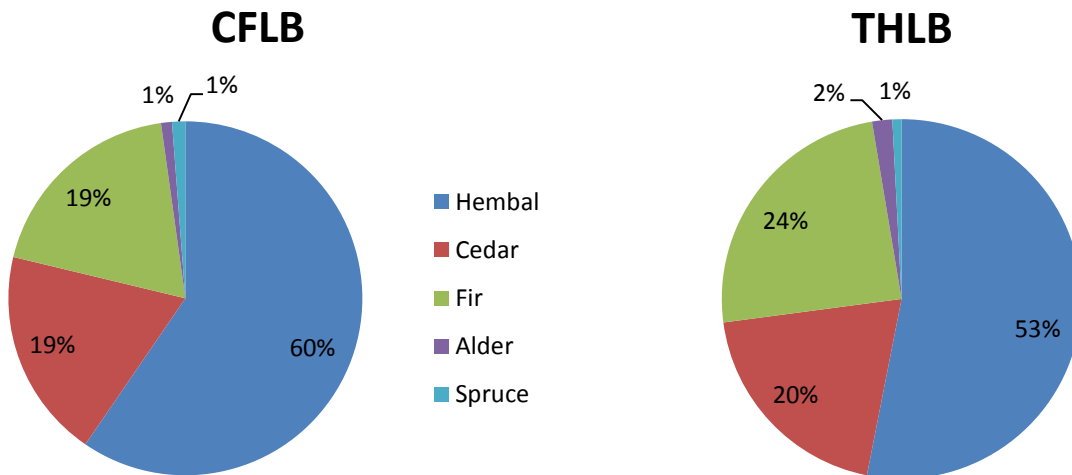


Figure 2. Crown forest land base (CFLB) and timber harvesting land base (THLB) inventory volume by species for stands older than 60 years.

Figure 3 (below) shows the current age class distribution of stands in the CFLB. Most natural stands are stands that were not established by planting; whereas, managed stands have been planted. Natural stands are older than 230 years, while managed stands have been planted. Natural stands are older than 230 years, while managed stands are younger than 35 to 60 years depending on the species. Stands with ages between 80 years and 230 years occupy only a small portion of the TSA.

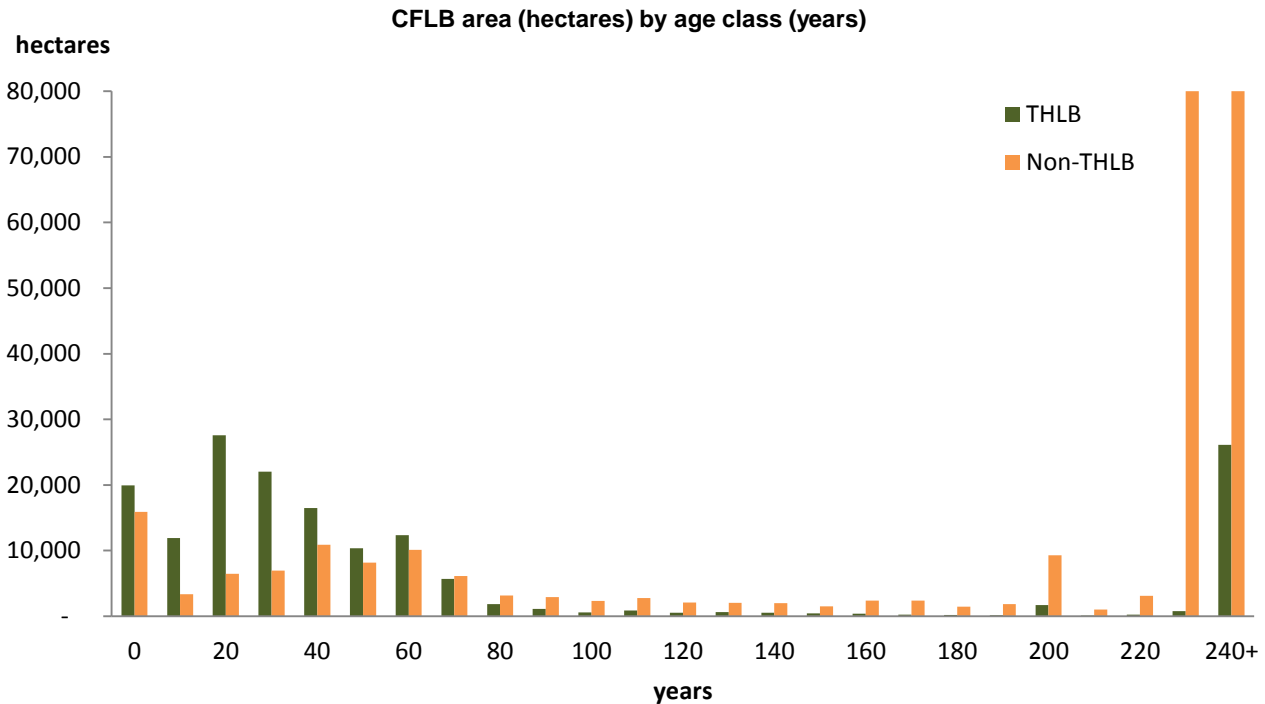


Figure 3. Age class distribution for the CFLB of the Strathcona TSA (hectares).

### Timber supply analysis

In order to determine an AAC, the chief forester reviews many sources of information, including a timber supply analysis that models the development of the forest through time and its response to harvesting while respecting government’s many timber and non-timber objectives. This section highlights some of the important findings from the timber supply analysis.

#### The base case

For most AAC determinations, a timber supply analysis is carried out using data and information from three categories: land base inventory, timber growth and yield, and management practices. Using this information, a computer model is used to produce a series of timber supply forecasts. These forecasts examine the timber supply effect of using different starting harvest levels, rates of decline or increase, and potential trade-offs between short- and long-term harvest levels.

From a range of timber supply forecasts that FLNR staff believe reflects the best available data, current legal requirements and demonstrated forest management practices one is chosen in which an attempt is made to avoid both excessive changes from decade to decade and significant timber shortages in the future, while ensuring the long-term productivity of forest lands. This forecast is known as the base case and is used as a reference when assessing the effects of uncertainty on timber supply. Because it represents only one in a number of theoretical forecasts, and because it incorporates information about which there may be some uncertainty, the base case is not an AAC recommendation.

The base case (Figure 4) begins in 2013 with an initial harvest level of 1 125 000 cubic metres per year, which is 8 percent lower than the 2005 AAC and 5.4 percent lower than the effective AAC, is maintained for one decade. The initial harvest level is lower than the effective AAC because forecasts using higher initial harvest levels (see “Sensitivity analysis”) resulted in larger decreases in mid-term timber supply than are consistent with the harvest flow objectives.

Starting in 2023, the harvest level decreases in three steps to a mid-term level of 820 000 cubic metres per year by the end of the third decade. This level is maintained for four decades before increasing to 918 000 cubic metres per year in 2083. The long-term harvest level of 1 028 000 cubic metres per year is reached in 2113.

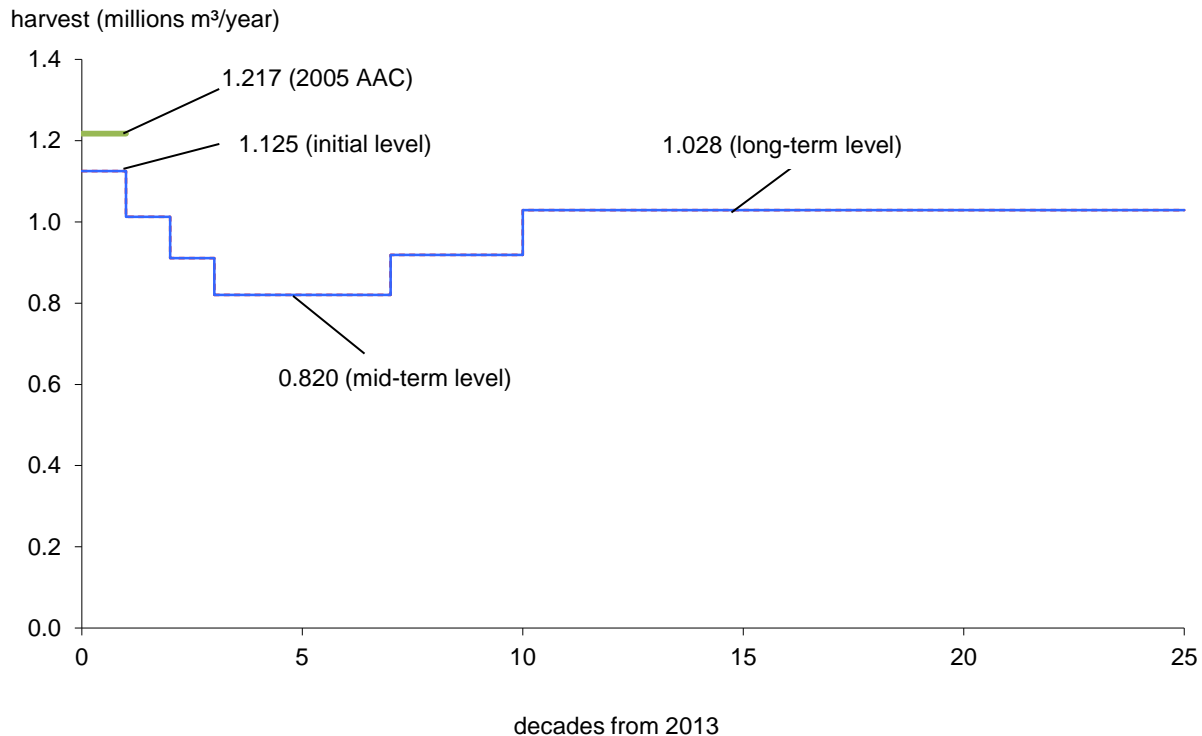


Figure 4. Base case forecast.

## Land base and forest management changes since 2005

The current AAC came into effect in August 2005. Several changes have occurred to the land base and forest management information since then and these changes are reflected in the timber supply analysis. These, and other changes, produce a base case that differs from the one prepared for the previous timber supply review. Major changes include:

- new or refined forest management requirements, including: legal objectives and targets for seral stage distribution, old forest retention, wildlife tree retention, temporal and spatial distribution of cutblocks, landscape connectivity, rare and endangered plant communities, wildlife habitat, fisheries sensitive watersheds and community watersheds;
- the new Coast Land Use Decision (CLUD) approved in 2006 and the related implementation of the Great Bear Rainforest EBM;

- areas excluded from the TSA for the Maa-nulth Final Agreement;
- updated mapping for roads, streams, riparian areas, and timber harvesting economic operability;
- the new vegetation resources inventory (VRI); and
- improved site productivity information and mapping.

## Sensitivity analyses

The base case uses a specific set of available data and forest management assumptions that attempts to capture current forest composition and management. Sensitivity analysis is used to examine the effect on timber supply of uncertain information or known differences in the assumptions used in the base case.

Table 4 provides a summary of the key issues that were explored using sensitivity analysis. It provides the percent change in the short-, mid- and long-term harvest levels compared to the base case harvest forecast.

Table 2. *Sensitivity analysis results*

What	Change	Percent impact		
		Short term	Mid term	Long term
1. Higher initial harvest level	Set the initial harvest at the 2005 AAC	+8%	-8%	0%
2. Increase existing yield	Increase existing stand yields by 14%	+8%	+8%	-3%
3. Reduce economic operability	THLB reduced by about 8%	-7%	-7%	-7%
Increase economic operability	THLB increased by about 6%	+9%	+9%	+6%
4. Cedar harvest level that does not decrease over time	Regulate the amount of cedar harvested	-7%	-1%	0%

Note: Short-term = decades 1-4, mid-term = decades 5-7, long-term = decades 8-25.

## Discussion

### 1. Higher initial rate of harvest

As discussed under “the base case” (Figure 4) setting the initial harvest at the level of the 2005 AAC (1.217 million cubic metres per year), i.e. eight percent higher than in the base case (1.125 million cubic metres per year) reduced the mid-term harvest level by eight percent. There was no change in the long-term harvest level. The mid-term level decreases when the initial harvest is increased because there is a finite volume of existing mature volume available for harvesting during the short- to mid-term. Increasing the initial harvest level increases the rate at which this volume is depleted, thereby decreasing the harvest volume available in the mid-term.

### 2. Uncertainty associated with existing stand yields

In phase 1 of the vegetation resource inventory (VRI Phase 1), inventory attributes are estimated using aerial photographs. In VRI Phase 2 a sample of randomly selected stands are measured and this information can be used to adjust the VRI Phase 1 information.

In the Strathcona TSA, both VRI Phase 1 and Phase 2 have been completed. Using the VRI Phase 2 information to adjust the productivity estimates for existing stands increased stand yields by 14 percent. However, a statistical analysis of the VRI Phase 2 adjustment indicated that due to the large variability in the data the results were not significantly different than in VRI Phase 1. On this basis, the VRI Phase 1 existing stand yields were used in the base case.

In a sensitivity analysis increasing the existing stand yields by 14 percent increased the short- and mid-term timber supply by eight percent. There was no effect on long-term timber supply. The reason that there is no effect on the long-term is that the productivity increase is only applied to existing, not future stands.

### **3. Uncertainty due to changes in economic operability**

One of the factors affecting the size of the THLB is economic operability or the commercial viability of harvesting a stand. Estimating the economic operability of stands is complex and subject to significant uncertainty as it fluctuates over time in response to changes in timber prices, harvest performance assumptions, changes in technology, harvesting and hauling costs etc.

In a sensitivity analysis, increasing the size of the THLB by six percent to reflect improvements in economic operability increased short- and mid-term timber harvest levels by nine percent and the long-term harvest level by six percent above the levels projected in the base case. Conversely, decreasing the size of the THLB to reflect decreases in economic operability decreased harvest levels by seven percent below the base case levels over the entire forecast period.

During the 10-year period (2004 – 2013) the average contribution of hembal volume to the total harvested volume was about 47 percent. That this has been consistently lower than the proportion of mature hembal stands in the THLB inventory and suggests that economic operability of hembal stands may be overestimated.

### **4. Highest level of cedar harvest that does not decrease over time**

In the base case only the total harvest is regulated in order to meet the objectives and constraints applied in the analysis. This means that the contribution of any one species, including cedar, fluctuates during the forecast period depending on the volume available.

Harvest records indicate that for the 10-year period (2004 to 2013 inclusive) the average annual cedar harvest was 28 percent of the total harvest volume for all species (see Table 3). This is eight percent higher than the proportion of mature cedar in the THLB (see Figure 2).

During the timber supply analysis the highest rate of cedar harvest that could be sustained without decreasing over the forecast period (referred to as an “even-flow” forecast) was 104 000 cubic metres per year.

During the 10-year period 2004-2013, the average annual cedar harvest was 326 887 cubic metres, or more than three times the sustainable cedar harvest level.

Table 3. 10-year harvest billing system (HBS) record (m<sup>3</sup>/year)

Year	Cedar harvest (m <sup>3</sup> /year)	Total harvest (m <sup>3</sup> /year)	% cedar in total harvest
2004	379,713	1,684,931	23
2005	301,081	1,123,474	27
2006	333,594	1,312,924	25
2007	502,839	1,528,366	33
2008	419,301	1,257,815	33
2009	156,408	799,410	20
2010	216,106	906,881	24
2011	247,150	854,806	29
2012	357,591	1,173,196	31
2013	355 089	1,243,312	29
<b>Total</b>	3,268,871	11,865,115	
<b>Average</b>	326,887	1,186,512	28

Source: HBS total billed logs and waste.

These results indicate that the contribution of cedar to the annual harvest is above the highest sustainable level achieved in the sensitivity analysis.

## Summary

The base case harvest forecast indicates that the 2005 AAC of 1 217 000 cubic metres cannot be maintained. The harvest level in the first decade of the base case harvest level is eight percent lower than the 2005 AAC. The difference in this harvest level is due to changes in land use objectives, and the impact of lower volume estimates in the new Vegetation Resources Inventory.

All of the key issues tested in sensitivity analysis show potential impact to the short-term harvest level of the base case; either by increasing or reducing harvest levels. With the exception of the increased initial harvest level sensitivity, all key issues tested also indicated potential impact to mid- and long-term harvest levels.

One of the key issues in this determination is the continued imbalance between the species composition of the harvest and the species profile in the THLB. Based on the results of the analysis and information from the inventory and HBS, there appears to be a risk that the current level of cedar harvesting may not be sustainable in the long term.

The provincial chief forester's AAC determination is a judgment based on professional experience and consideration of a wide range of information as required under Section 8 of the *Forest Act*. An AAC is neither the result of a calculation nor limited to the results of timber supply analysis; therefore, the new AAC may not be the same as the harvest level in the base case.

**Your input is needed**

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Public input is a vital part of establishing the allowable annual cut. The information and comments received from this review will be provided to the chief forester prior to determination of the new allowable annual cut. Feedback is welcomed on any aspect of this public discussion paper or any other issues related to the timber supply review for the Strathcona TSA. Ministry staff would be pleased to answer questions to help you prepare your response. Please send your comments to the District Resource Manager at the address below.

Your comments will be accepted until February 6, 2015.

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 made public, personal identifiers will be removed before the responses are released.

For more information or to send your comments, contact:

District Resource Manager  
B.C. Ministry of Forests, Lands and Natural Resource Operations  
Campbell River Natural Resource District

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Campbell River, B.C.  
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Phone: (250) 286-9300 Fax: (250) 286-9490

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Further information regarding the technical details of the timber supply analysis is available on request by contacting [Forests.ForestAnalysisBranchOffice@gov.bc.ca](mailto:Forests.ForestAnalysisBranchOffice@gov.bc.ca)

Visit the Forest Analysis and Inventory Branch web site at <http://www.for.gov.bc.ca/hts>