An aerial photograph of a vast forest landscape, showing a mix of green and brown trees, with a road and a building visible in the lower right quadrant.

**Urgent timber supply
review for the
Morice timber supply area**

Public Discussion Paper

**B.C. Ministry of Forests and Range
1520 Blanshard Street
Victoria, B.C.
V8W 3J9**

June 2007

Public Discussion Paper

Introduction

The British Columbia Ministry of Forests and Range regularly reviews the timber supply* for all timber supply areas* (TSAs) and tree farm licences* (TFLs) in the province. This review, the third for the Morice TSA, 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 will determine a new allowable annual cut (AAC) for the Morice TSA.

By law, the chief forester must review and set new AACs for all 37 TSAs and 33 TFLs every five 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 five years 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 forest management practices, public input, and economic,

environmental and social factors;

- **Set a new AAC** for the next five years; and
- **Identify** information to be improved for future timber supply reviews.

Urgent timber supply review in the Morice TSA

Mountain pine beetles (MPBs) are the most damaging insect that attack lodgepole pine in Western Canada. Beetles attack pine trees by laying eggs under the bark. When the eggs hatch, the larvae mine the phloem area beneath the bark and eventually cut off the tree's supply of nutrients.

The beetles also carry a fungus that causes dehydration and inhibits a tree's natural defenses against beetle attacks. The fungus stains the wood blue or grey. Despite the discoloration, the wood remains structurally sound and can still be used for high-quality products such as sawlogs for a number of years after the tree has been killed.

Forests of mature lodgepole pine are prime habitat for the mountain pine beetle, and the beetle thrives under warm weather conditions. The Interior of British Columbia has an abundance of mature lodgepole pine*, and has

experienced several consecutive mild winters and drought-like summers. As a result, mountain pine beetle populations have reached an unprecedented level in British Columbia's recorded history. Based on provincial aerial overview data, we estimate that the cumulative pine mortality from 1998 to 2005 (red-, and grey-attack) for the entire province was approximately 435 million cubic metres. Projections from the latest version of the Provincial-Level Mountain Pine Beetle Model (BCMPB.v4) indicate that an additional 95 million cubic metres were killed (green attack) in 2006 bringing the total affected volume to about 530 million cubic metres. This represents approximately 40% of the total merchantable pine volume on the timber harvesting land base (1.35 billion m³). We now project that the infestation will be essentially over by 2018 and at that time the cumulative pine volume killed will be approximately 78%.

**Throughout this document, an asterisk after a word or phrase indicates that it is defined in a box at the foot of the page.*

Timber supply

The amount of timber that is forecast to be available for harvesting over a specified time period, under a particular management regime.

Timber supply areas (TSAs)

An integrated resource management unit established in accordance with Section 7 of the Forest Act.

Tree farm licences (TFLs)

Provides rights to harvest timber and outlines responsibilities for forest management in a particular area.

Mature lodgepole pine

In this report, mature has been defined as 60 or more years old.

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The Ministry of Forests and Range estimates that the peak in the annual number of trees killed occurred during the summer of 2005 when about 139 million cubic metres of timber were affected. Last year, observed (red attack) mortality did, in fact, decline and we estimate that approximately 108 million cubic metres of merchantable pine were killed during the summer of 2005.

While the forests of the Morice TSA have more species diversity than many TSAs in the northern interior, pine still represents 54 million cubic metres or 43% of the total volume within the timber harvesting land base. The majority of this pine volume, about 50 million cubic metres, is mature or over mature (60 years old or greater) and susceptible to the beetle epidemic within the TSA.

The BCMPB.v4 projected that about 8.4 million cubic metres of pine will be killed in the Morice TSA in 2006. This will be confirmed later this year when the dead trees turn red and can be observed from the air. The projected kill for 2007 is 7.8 million cubic metres. By 2010 it is estimated that the cumulative kill will be about 73% of the total mature pine volume. If beetle populations continue to expand as predicted by the Ministry of Forests and Range, the cumulative kill is expected to be about 78% of the total mature pine volume when the infestation is projected to be over in 2018.

Since the mountain pine beetle is now well established and widespread in the TSA we

believe all options, including increased harvesting of pine, should be considered where feasible to mitigate the economic and environmental impacts. For this reason, the chief forester is considering an urgent review of the timber supply and allowable annual cut in the Morice TSA.

The objectives of this document are to provide British Columbians with an overview of the Timber Supply Review process and harvest level forecasts for the Morice TSA, and to encourage them to provide comments to the Ministry of Forests and Range. Public comments will be accepted for 60 days, until August 7, 2007.

Before setting a new AAC, the chief forester will review all relevant reports and public input. The chief forester will outline his determination in a rationale statement that will be publicly available upon release. Following the release of the AAC determination, the Minister of Forests and Range will apportion the AAC to the various licences and programs.

Description of the Morice timber supply area

The Morice TSA is situated on the western edge of British Columbia's central interior plateau and covers approximately 1.5 million hectares of the Northern Interior Forest Region. About 962 000 hectares within the TSA are considered productive forest land and 70% of this is available for timber harvesting. The timber harvesting land base

therefore represents 669 350 hectares or 45% of the total area within the TSA boundary.

The TSA is administered by the Nadina Forest District in Burns Lake.

The Morice TSA extends from the most northerly tip of the Babine Lake in the north to Ootsa and Whitesail lakes in the south. The TSA has a gentle, rolling landscape in the north and east, becoming more mountainous in the southwest. Major rivers include the Bulkley, Morice and Nadina. The overall climate is transitional between coast and interior, with cool summers and cold winters.

The forests of the Morice TSA are fairly diverse. However, within the timber harvesting land base, lodgepole pine-leading stands occupy more than 50 percent of the land base. The other two major species are hybrid spruce and subalpine fir (balsam). Trembling aspen, amabilis fir, western hemlock and mountain hemlock also occur in minor amounts. Over 60% of the forests in the TSA are currently mature or old; over time, as harvesting occurs, younger forests will become more predominant.

The main community in the Morice TSA is Houston which accounts for about three-quarters of the population. The remainder of the population lives in smaller communities such as Topley and Granisle, or on the many ranches and farms along the Highway 16 corridor and in the area from Owen Lake to Francois Lake.

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Land-use planning

The Morice Land and Resource Management Plan was completed in March 2004, and is expected to be approved by government in 2007. It provides direction for the management of Crown land and resources in the Morice TSA.

The final plan identified a number of protected and no-harvest areas. No-harvest areas included: Herd Dome, Morice Lake, Starr Creek, Swan Lake/China Nose, and Troitsa/Tahtsa. Protected areas included: Atna Ecological Reserve, Burnie/Shea Lakes, Nadina Mountain, Nanika/Kidprice, and the eight Babine Lake marine parks. Together these amounted to 26 689 hectares of timber harvesting land base. A further 793 hectares of timber harvesting land base was removed for island exclusions, and 314 hectares of the timber harvesting land base was removed in the Morrison Lake/Babine East area to satisfy the rule for no harvesting in lakeshore buffers.

The natural resources

The Morice TSA has a wide range of forest land resources, including forest products (timber and non-timber), forage, minerals, recreation and tourism amenities, fishery and

wildlife habitats. Good access to a diversity of landscapes, including lakes and rivers, provides a variety of recreation opportunities for both residents and tourists. Summer activities include camping, hiking, fishing, boating, canoeing, wildlife viewing and back-country recreation.

Hunting is popular in the spring and fall, for mule deer, mountain goat, moose, black bear and grizzly bear.

Recreational activity in winter is high, including snowmobiling, ice fishing, and cross-country and back-country skiing. In addition, the beef ranching industry depends heavily for summer forage on Crown range land in the major valleys of the TSA.

The diverse forests and landscapes of the Morice TSA are home to a wide variety of wildlife species. Although best known for its moose population, the TSA also supports mule deer and, to a lesser degree, whitetail deer, grizzly and black bear, mountain goat, wolves, coyotes and small herds of caribou. Significant populations of small mammals also exist, with pine marten, beaver and lynx being the most common. The rivers and lakes of the TSA support many fish species, including four species of salmon, steelhead, rainbow trout,

kokanee, lake trout, Dolly Varden, bull trout, cutthroat trout, and whitefish. The Morice River provides some of the best angling opportunities in the province, especially for steelhead. Numerous lakes in the TSA also provide a range of fishing opportunities. Many of these fish and wildlife species are regionally or provincially significant while others are commercially important.

Environmental values

Current forest management follows the standards set out in the *Forest and Range Practices Act*, which are designed to maintain a range of biodiversity and wildlife values. In the Morice timber supply area, about 30 per cent of the productive forest land is not considered available for timber harvesting and will provide for additional environmental values.

Forested areas both inside and outside the timber harvesting land base will help to maintain critical forest habitats for many species. Forest cover requirements for biodiversity, visual quality, community watersheds, recreation features, riparian management, and protection of environmentally sensitive areas were included in the analysis.

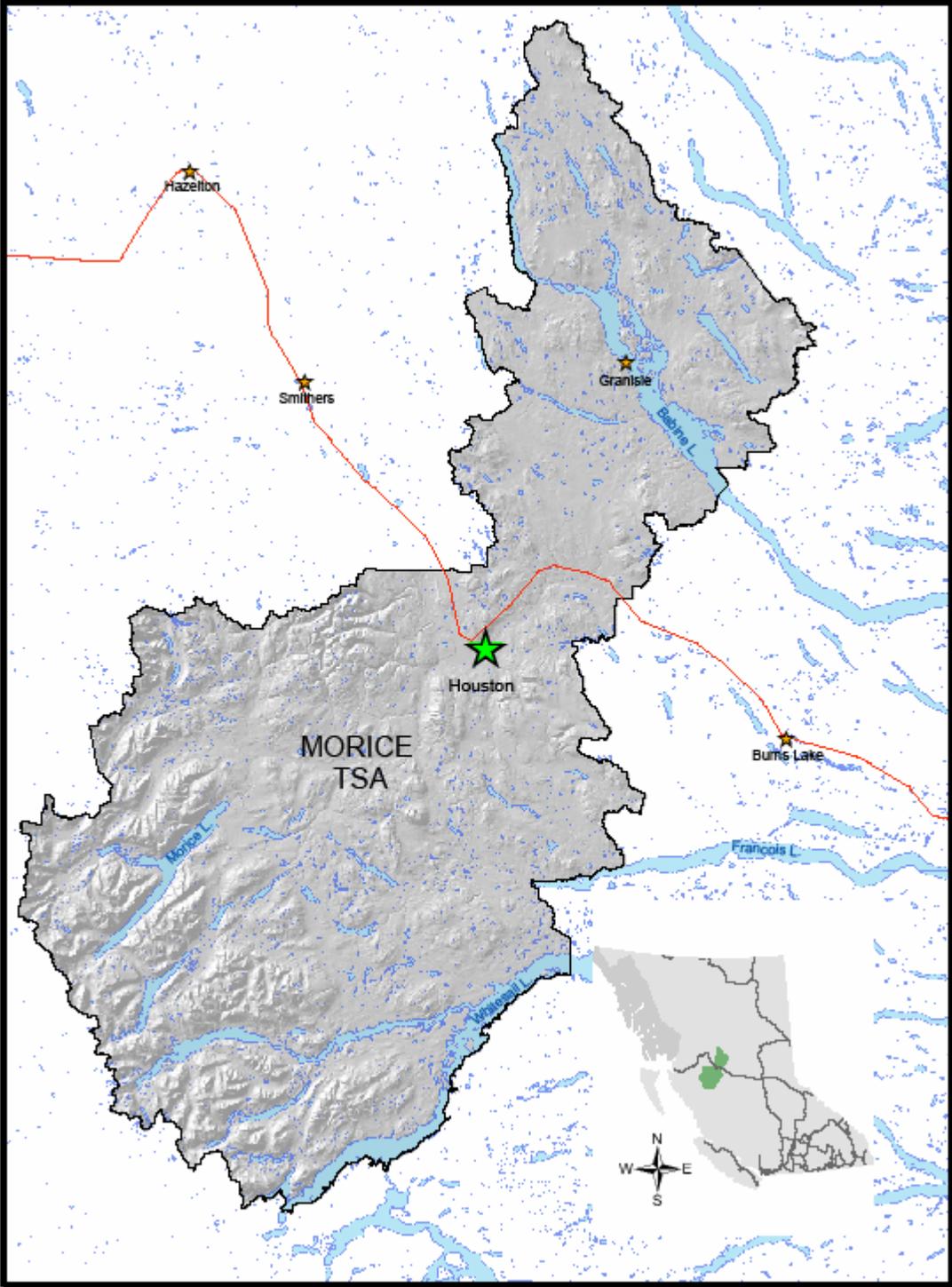


Figure 1. Map of the Morice Timber Supply Area.

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Current annual cut

In October 2002, the chief forester established an AAC in the Morice TSA of 1 961 117 cubic metres. Data from the Ministry's harvest billing system indicates that since 2002 the entire AAC was being used and for the past two years lodgepole pine comprised about 70% of the total harvest.

Innovative Forestry Practices Agreement

In January of 2007 the holders Morice and Lakes Innovative Forest Practices Agreement (M&L IFPA) requested that the regional executive director of the Northern Interior Forest Region consider an increase of 500 000 cubic metres to reflect innovative practices and activities under an Innovative Forest Practices Agreement the government has with the M&L IFPA. The decision on whether to grant the increase in harvest to the M&L IFPA has not yet been finalized.

Timber supply forecasts

The M&L IFPA prepared a timber supply analysis in 2006 to support its application for a harvest uplift request from the regional executive director. This analysis incorporated a large amount of new data collected subsequent to TSR 2 by the M&L IFPA under its Innovative Forest Practices Agreement. The Morice LRMP

planning table also conducted several timber supply analyses to support its land use recommendations to government. These analyses were concluded in 2006.

The analysis for this timber supply review used data from a variety of sources including the M&L IFPA and the LRMP as described in the Morice TSA data package prepared in 2006. A timber supply computer model was used to project a number of possible timber supply forecasts for the next 400 years for the Morice TSA. In previous analyses, ministry staff would chose one timber supply forecast that they believe reflects both the best information sources and current forest management assumptions. That timber supply projection was called the 'base case forecast'. This approach was appropriate when forestry professionals had a good understanding of the forest and how it will respond to management activities. However, this understanding of the forest has been severely challenged by the current mountain pine beetle epidemic that is historically unprecedented in scope and severity.

There are many uncertainties regarding the mountain pine beetle epidemic. Even though we project that about 78% of the mature lodgepole pine in the TSA will be killed this is far from certain. It is also unknown how far down the age profile the

mountain pine beetle will affect. Originally it was thought that the beetles attacked only mature lodgepole pine stands, however, they have been observed in stands aged 35 years or younger. It is also hard to predict how fast surviving trees will grow, how susceptible they will be to windthrow, how long it will take regeneration to become established under an over storey of dead trees, and how long dead trees will retain commercial value.

Given these and other large uncertainties, it was decided not to do the usual sensitivity analyses fine tuning the timber supply impact of small changes to the volume curves or timber harvesting land base for example. Short-term timber supply under the current circumstances depends more on how we choose to deal with the projected beetle epidemic rather than minor changes to land base or yield curves. For the first 20 years of this analysis the projected spread of the mountain pine beetle, shelf-life and harvesting were tracked at the stand level on an annual basis. The remainder of the forecast horizon was modelled on a decadal basis. Rather than a base case, several possible scenarios with very different assumptions will be presented for the chief forester to consider, along with other sources of information, when determining the allowable annual cut for this TSA.

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Major assumptions

Assumptions common to most of the scenarios presented in this public discussion paper are discussed in the sections that follow.

Projection of the beetle epidemic

Except where stated, the scenarios presented in this public discussion paper assume the mountain pine beetle epidemic will continue unabated for the foreseeable future. Seventy-three per cent of the pine thought old enough to host a mountain pine beetle brood over the winter is projected to die within the next 5 years. Like all provincial modelling to date, that age was assumed to be 60 years old or greater.

For this analysis, the progression of the epidemic in the Morice TSA was projected using an earlier version of the computer model (BCMPB.v3) developed by scientists in the British Columbia Forest Service, the Canadian Forest Service and consultants. The computer model was calibrated using provincial infestation maps from 1999 to 2005.

Shelf-life

A major assumption impacting the efficacy of any salvage program is the shelf-life of the dead lodgepole pine, or the length of time it will remain commercially viable. After that period the dead pine is

considered a non-recovered loss (NRL). In this analysis the commercially viable product of concern is sawlogs. The NRLs may still be useable for chips or other non-sawlog uses. Shelf life depends on the moisture content of the log when it arrives at the mill, technology at the mill, and other factors. Despite the research studies underway in this province, there is no single “correct” number for sawlog shelf life available. Based on anecdotal evidence gathered over the past few years, the shelf-life of individual trees assumed in this analysis is two and a half years. This means that for the first 2 years after being killed 100% of the trees will be useful for sawlogs and only 50% will be useful in the third year after death. By the fourth year after being killed no trees are assumed suitable for sawlogs. Sensitivity analyses will be done to show the effect of shelf-life on timber supply.

Minimum harvest volumes

All scenarios assumed a stand required at least 150 cubic metres per hectare of merchantable volume to be considered a candidate for harvest. If a stand initially had more than 150 cubic metres per hectare of merchantable volume and enough trees were past their shelf-life before harvesting to reduce merchantable volume below 150 cubic metres then the stand was considered

unmerchantable. This is sometimes referred to as the “stand shelf-life”. Tracking the beetle infestation annually enabled the merchantable volume to be computed annually for a stand experiencing varying stages of beetle attack.

Management for non-timber objectives

All forest cover constraints required to manage for visual quality, wildlife habitat, old growth as well as area specific management objectives were respected in this analysis. These constraints are listed in the Morice TSA data package dated July 2006.

Analysis results

Because of the concerns about timber supply after the MPB epidemic is over, it was decided to treat the forest in this TSA as two populations. The non-pine population, comprised of stands where pine is less than 70% of the total stand volume, is expected to retain enough merchantable volume after the beetle epidemic to be the source of mid-term timber supply. The pine population, comprised of stands where the pine volume is greater than 70% of the total stand volume, is expected to lose volume and become unmerchantable. This population is therefore the target for short-term timber supply.

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Figure 2 shows scenario 1 where the non-pine portion of the Morice TSA can support a harvest level of 885 000 cubic metres per year for the entire 400-year forecast period (only the first 100 years are shown for the harvest forecasts in this document). In order to recover maximum value from the pine resource, we have chosen to

harvest as much pine as possible while respecting all other forest values. In scenario 1, the pine portion of the Morice TSA can support a harvest level of 2 076 000 cubic metres per year for the first 10 years. By this time almost all of the mature pine in the TSA is projected to be either killed or harvested and the

available harvest from this population (from stands currently less than 60 years old) drops to 10 000 cubic metres per year for the following 50 years. After year 60, harvest from the pine population can be increased to the long-term harvest level of 676 000 cubic metres per year.

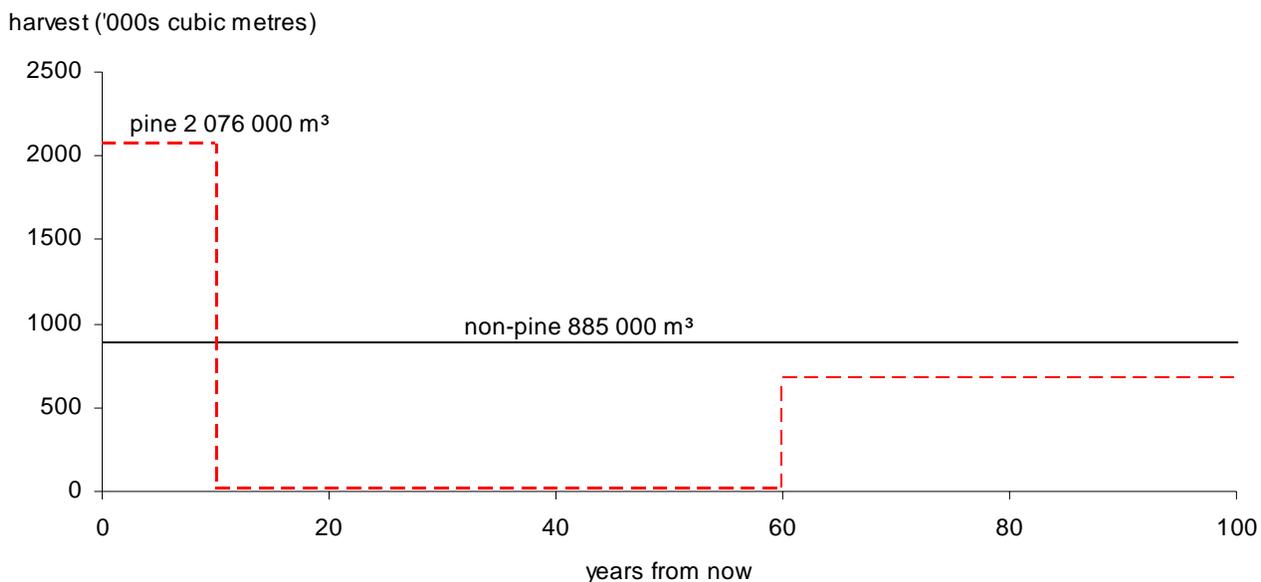


Figure 2. Scenario 1: Harvest of two million for ten years from pine population.

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Figure 3 shows the growing stock that results if we harvest as described above and the beetle epidemic unfolds as projected. The total non-pine growing stock gradually drops from the current level of

81 million cubic metres to a long-term level of about 41 million cubic metres. The total pine growing stock rapidly drops from the current level of about 44 million cubic metres to about 7 million cubic metres

within the first 12 years. The pine growing stock then gradually recovers to about 29 million cubic metres in the long term.

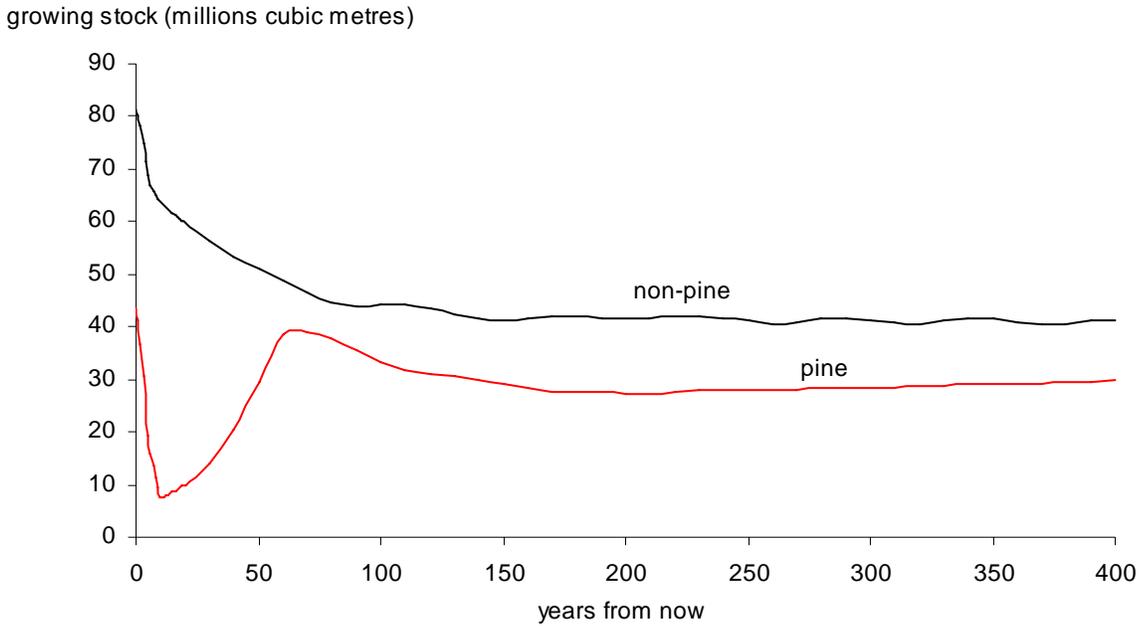


Figure 3. Growing stock resulting from harvest in scenario 1.

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Alternate scenarios

If the harvest level in the TSA was not increased above the current AAC and we still considered the forest as comprising of two populations, the harvest from the pine population during years 11 to 59 could be increased from 10 000 cubic metres per year to

125 000 cubic metres per year (See Figure 4). Under this scenario, total volume harvested from the pine population is 4.25 million cubic metres less than that obtained in scenario 1 during the first 60 years but mid-term timber supply is more robust. Even though more trees are killed by

the beetle in the pine population under this scenario than in scenario 1, less live pine is harvested (20% of the pine is expected to survive the epidemic) thereby conserving growing stock and enabling higher harvest rates in the mid term.

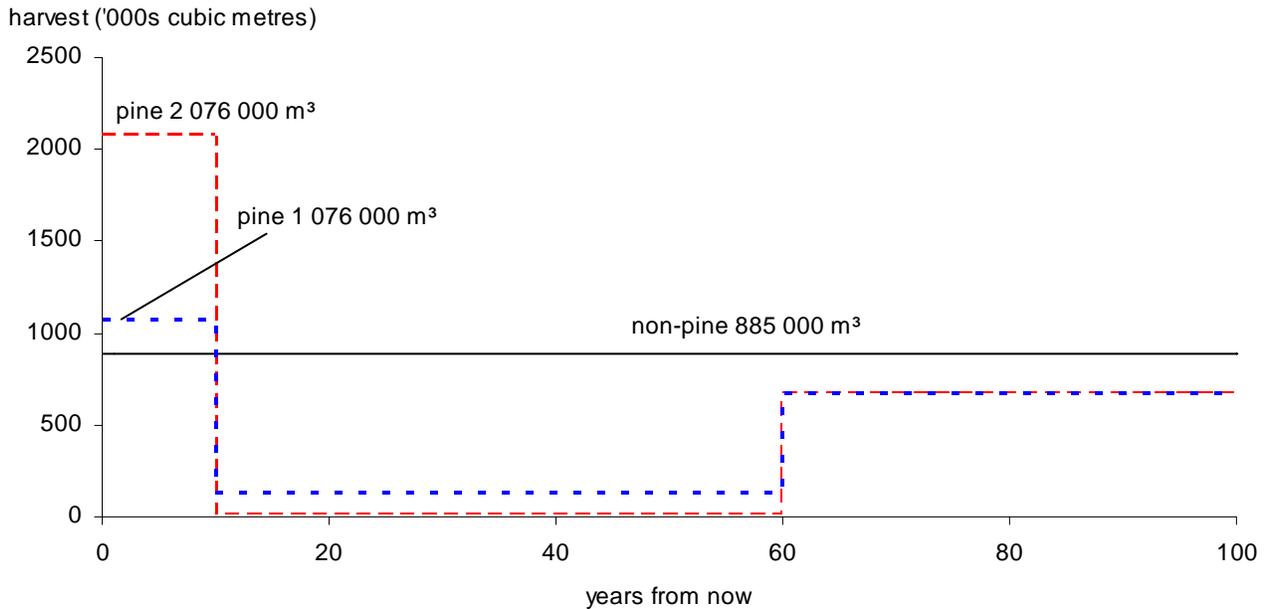


Figure 4. Scenario 2: No increase in the current allowable annual cut.

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Instead of increasing the harvest level in the pine population for 10 year as in scenario 1, scenario 3 examines the effect of increasing the harvest for only 5 years. Figure 5 compares the harvest flows obtained from the pine population for scenarios 1, 2 and 3. It shows that mid-term harvest from the pine population in scenario 3 could

be as high as 200 000 cubic metres per year compared to 125 000 for scenario 2 and 10 000 for scenario 1. As in the previous two scenarios, the harvest from the non-pine population is 885 000 cubic metres per year for the entire forecast period. The harvest from the pine population in scenario 3 (2 million for 5 years) is the same as that in

scenario 1 (1 million for 10 years). However, the harvest rate in scenario 3 captures mortality while the beetle infestation is at its peak but because harvest is reduced as the infestation slows growing stock is conserved thus there is even greater opportunity to increase mid-term harvest than in scenario 2.

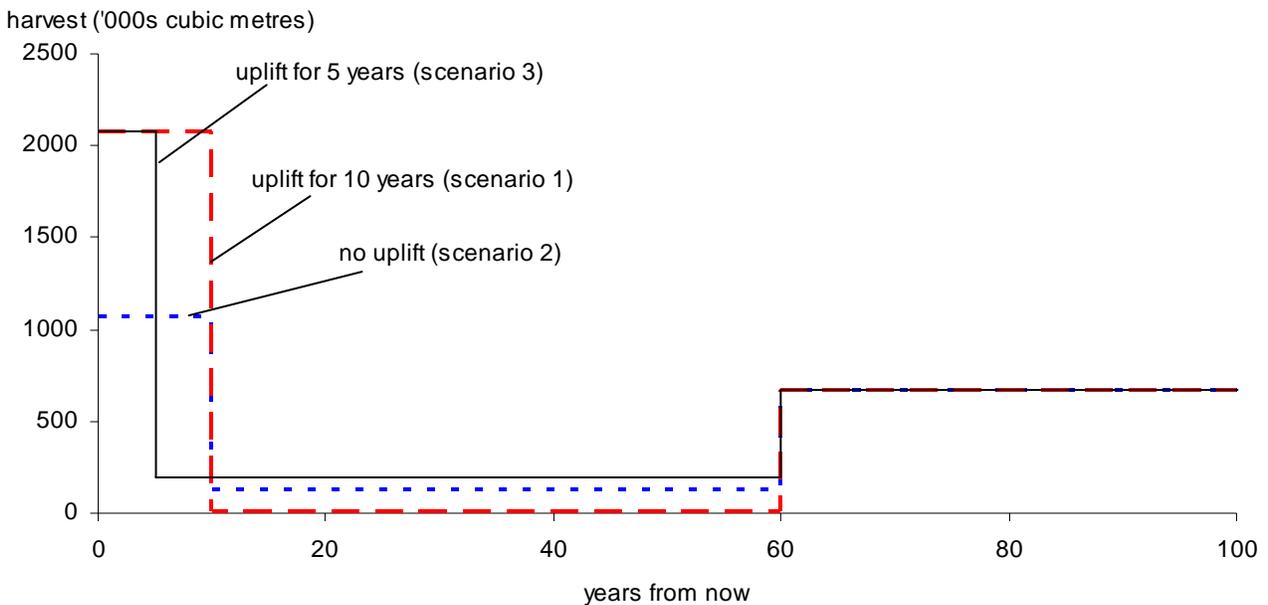


Figure 5. Scenario 3: Increased harvest in the pine population for only 5 years.

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Sensitivity analyses: examining uncertainty

In the analyses presented so far it was assumed that beetle-killed pine trees had a sawlog shelf-life of two and a half years. If the shelf-life was longer it would allow more time to utilize the dead trees and there would be more options regarding amount of increase (if any) to the harvest level and duration of harvest in the pine population.

Uncertainties such as this are generally examined through what are called sensitivity analyses, which the chief forester will consider when determining an AAC. The sensitivity analyses assess how sensitive the timber supply forecast is to changes in information or management practice by making a change to a single data input or

management assumption in the timber supply model and examining its impact on timber supply.

Figure 6 shows two sensitivity analyses examining the impact of shelf-life on timber supply. In one analysis a shelf-life for individual trees of 5 years is assumed and in the other a shelf-life of 20 years is assumed. While a sawlog shelf-life of 5 years is quite possible, a shelf-life of 20 years is shown to assess the impact of having the time to harvest most of the beetle-killed pine regardless of type of product. In both cases the resulting timber supply is compared to that obtained in scenario 1. If the sawlog shelf-life for beetle-killed pine trees is 5 years, it is possible to maintain a harvest level of 2.076 million cubic metres per year from the pine population

for 10 years as in scenario 1. However, the slightly longer shelf-life means that pine stands remain merchantable longer and harvesting occurs in these stands rather than in stands with live pine. This conserves growing stock so that the mid-term harvest (from years 11 to 59) increases from 10 000 to 125 000 cubic metres per year. If the shelf-life is 20 years, then it is possible to maintain a harvest level of 2.076 million cubic metres per year from the pine population for 16 years. Mid-term harvest then decreases to 250 000 cubic metres per year before increasing to the long-term level of 676 000 cubic metres per year. This harvest flow choice is only one of many possible with a shelf-life of 20 years.

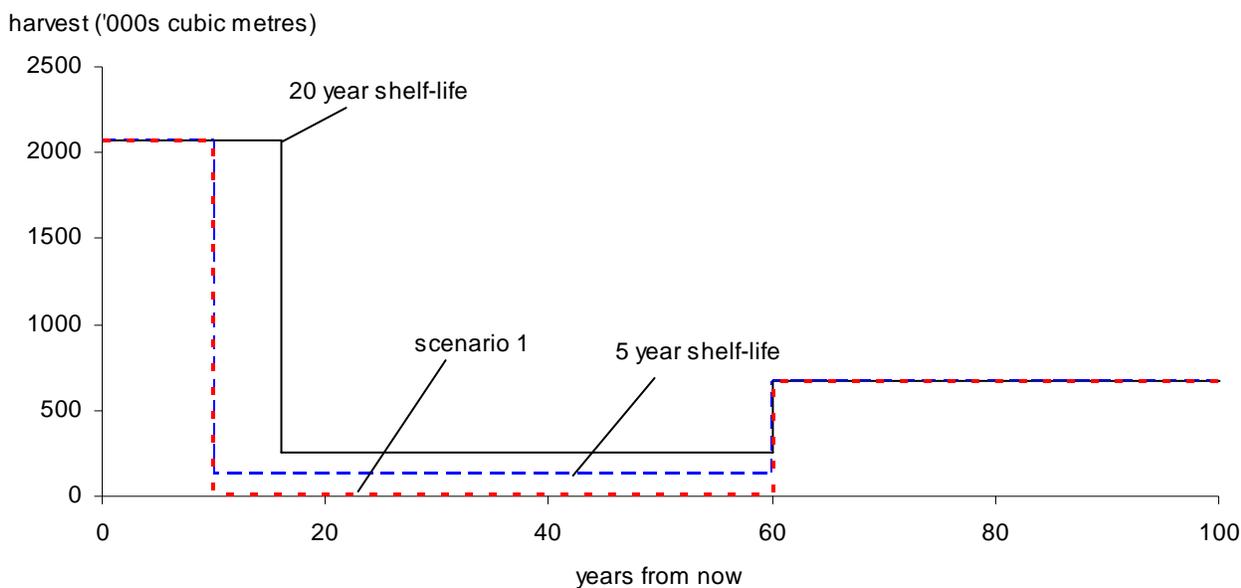


Figure 6. Timber supply effects of changing shelf-life assumptions.

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Proposed objectives and strategy to deal with the beetle infestation

The Nadina Forest District's strategy to deal with the impacts of the mountain pine beetle epidemic is, with full consideration to protect and manage other non-timber resource values, to maximize value recovery of dying and dead pine trees across the timber supply area. Mountain pine beetle population levels are high across the majority of the timber supply area, and it is no longer possible to slow or delay the population. As such, the beetle harvest activities will be primarily focused on expedited large-scale harvest and salvage of in danger, dying or dead lodgepole pine stands. This will reduce the net economic loss of timber value and provide the opportunity to bring beetle-killed forest land back into active production.

Lodgepole pine dominated forests are a significant component of the timber supply area, however there exists significant diversity in many portions of the timber supply area in terms of landscape features, elevation and species mix, which will provide opportunities for strategic retention planning to manage and protect other resource values.

The Nadina Forest District's strategy and objectives in responding to the current infestation include:

- Directing harvest of the existing AAC and potential uplift volumes to high priority (> 70% pine component) mountain pine

beetle killed or infested stands.

- Recovering the highest value from beetle-infested timber before it deteriorates, burns, or decays, while respecting other forest values.
- Developing new short-term tenure opportunities to help expedite the harvest of mountain pine beetle infested stands.
- Providing and enhancing First Nations opportunities in conjunction with accommodation agreements.
- Conserving the long-term forest values identified in the Morice Land and Resource Management Plan.
- Recognizing landscape and stand-level biodiversity values, and developing retention strategies to maintain or enhance those values in a manner consistent with the Chief Forester's December 2005 "Guidance on Landscape- and Stand-level Structural Retention in Large-Scale Mountain Pine Beetle Salvage Operation".
- Minimizing impacts to the non-pine component of the timber supply area.
- Notwithstanding the forest health impacts associated with the current mountain pine beetle infestation that, the licensees will proactively address other forest health factors in a manner consistent with the District Forest Health Strategy.

Implications of changes in the AAC

Environmental implications

The impacts of the current mountain pine beetle infestation in the Morice TSA will inevitably affect forest values such as wildlife habitat, stream hydrology and visual quality. While some animals will lose habitat, dead trees will provide habitat for other animals. Trees affect stream flow mainly through evapo-transpiration, shading and interception. Beetle-killed trees cease transpiration and are less effective in providing shade and interception. Thus we need to consider hydrological impacts as well when planning harvesting in watersheds impacted by the beetle epidemic.

The Nadina Forest District, in collaboration with forest licensees and the British Columbia Timber Sales program, is revising forest management strategies where necessary to consider values related to First Nations, watershed hydrology, old-growth management areas, visual quality objectives, harvesting priorities, non-susceptible species retention and wildlife trees.

Regardless of the allowable annual cut determined by the chief forester, the district will monitor the beetle epidemic, effectiveness of management strategies, and licensee responsiveness to the epidemic, and report the findings periodically to the chief forester.

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First Nations implications

There are nine First Nation groups asserting traditional territory within the Morice Timber Supply Area (TSA). These First Nations include Cheslatta Carrier Nation, Nee Tahi Buhn Band, Skin Tyee Band, Wet'suwet'en First Nation, Office of the Wet'suwet'en, Moricetown Band Council, Lake Babine Nation, TI'azt'en First Nation and Yekooche First Nation.

Cheslatta Carrier Nation, Nee Tahi Buhn Band, Skin Tyee Band, Moricetown Band Council and Yekooche First Nation have each signed Forest and Range Agreements (FRA) with the Ministry of Forests and Range. These agreements provide tenure and revenue sharing opportunities for the First Nations. Moricetown Band Council has been issued a non-replaceable forest license in the Morice TSA in accordance with their FRA.

Wet'suwet'en First Nation and Lake Babine Nation each have a signed Interim Agreement on Forest and Range Opportunities. No forest tenures have been issued under these agreements within the Morice TSA. The Office of the Wet'suwet'en has been issued a direct award non-replaceable forest license in the Morice TSA.

In 2002, the then Morice Forest District refined the archaeological potential model

that was in use at the time. The purpose of the refinement was to provide written and mapped information on archaeological resource potential as well as information on the locations of known archaeological sites. This information is then used by MoFR and licensees to make appropriate decisions regarding archeological impact assessments on proposed forestry developments. This information is also being added to data from the Lakes TSA to develop a cultural heritage resource risk assessment model for use in forest management over the entire Nadina Forest District.

The Ministry of Forests and Range has already begun consultation efforts with respect to 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.

Community implications

The implication of changes in the allowable annual cut for local communities is an important consideration in the timber supply review. The current allowable annual cut for the Morice timber supply area is 1.961 million cubic metres. The harvest forecast associated with this timber supply analysis suggests that the harvest level could be increased to 2.961 million cubic metres for a

period of 10 years in response to the mountain pine beetle infestation, depending on the shelf-life of dead pine within the TSA.

There would be a short-term increase in direct and indirect forestry-related employment, as well as other industry-related changes in the Morice timber supply area forestry sector if the suggested increases were fully harvested. After this period of increased activity, the community should expect a sharper decline to mid-term activity than would otherwise be the case if the harvest level had not been increased. This TSA is fortunate to have such a significant non-pine growing stock that is capable of providing a sustainable harvest of almost one million cubic metres per year. It is important that this portion of the forest resource not be over-harvested if a significant sawmilling industry is desired after the beetle-killed trees are no longer useful for sawlogs.

This TSA is part of the territory covered under the Omineca Beetle Action Coalition. With funding from the province, this organization provides local leadership in designing economic development and community transition strategies to deal with the effects of the MPB.

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Your input is needed

Public input is a vital part of establishing the allowable annual cut. Feedback is welcomed on any aspect of this discussion paper or any other issues related to the urgent timber supply review for the Morice timber supply area. Ministry staff would be pleased to answer questions to help you prepare your response.

Please send your comments to the forest district manager at the address below.

Your comments will be accepted until August 7, 2007.

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 contact and/or mail your comments to:

Mailing Address:
District Manager
BC Ministry of Forests and Range
Nadina Forest District
Box 3500
Burns Lake BC
V0J 1E0

Physical Address:
185 Yellowhead Hwy.
Burns Lake, BC
V0J 1E0

Telephone: 250 692-2200
Facsimile: 250 692-7461

Or by electronic mail to:

Nadina Forest District

Forests.NadinaDistrictOffice@gov.bc.ca

Visit our website at
<http://www.for.gov.bc.ca/hts>

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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. In this lengthy and complex process, the chief forester considers technical reports, analyses and public input, as well as government's social and economic objectives.

This responsibility is required by legislation in the *Forest Act*, Section 8. It states that the chief forester shall specifically 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 that it will take the forest to 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 economic and social objectives of the Crown for the area, region and province — as expressed by the minister of forests.
4. 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 and range when determining AACs. In these determinations, the chief forester considers relevant information from all sources.