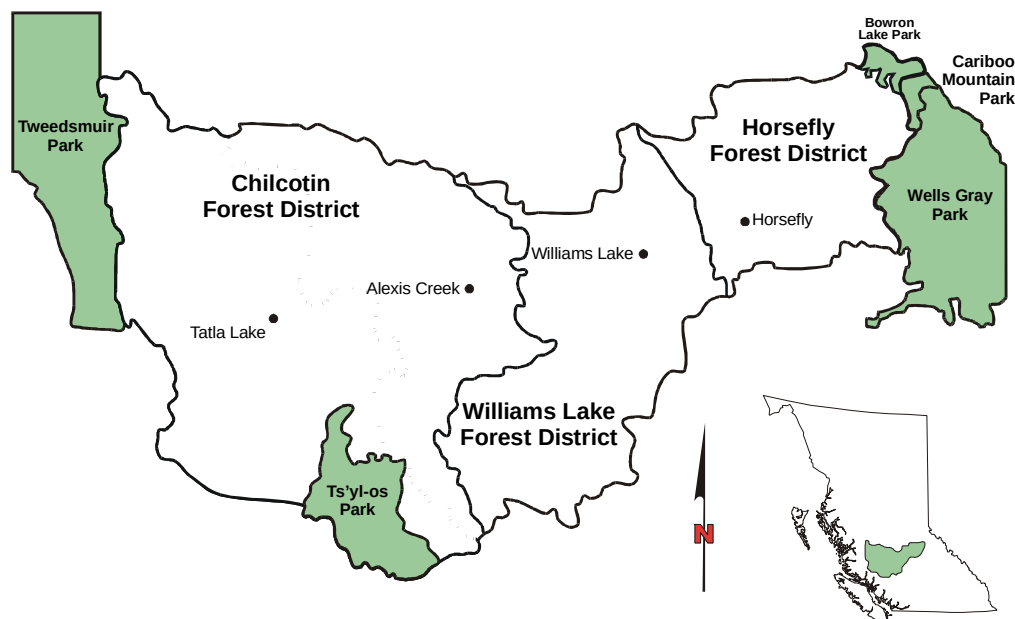


Williams Lake Timber Supply Area

Information Report
August 1999



**BRITISH
COLUMBIA**

Ministry of Forests

Introduction

The British Columbia Forest Service is required by law to formally review the timber supply* in all timber supply areas* and tree farm license areas* in the province. A review of each of the areas is completed at least once every five years. The main objectives of the reviews are:

- to identify the economic, environmental and social information that reflects the 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 allowable annual cuts* for the next five years

* Throughout this document, an asterisk at the end of a phrase or word indicates that a definition can be found in the margin.

Objective of this document

The objective of this document is to provide an opportunity for the public to review the draft data and management assumptions that will be applied in the timber supply analysis for the Williams Lake timber supply area. This document represents the early stages of the timber supply review process and is intended to provide a non-technical overview of the draft data and management assumptions that will be used in the upcoming *Williams Lake Timber Supply Area Analysis Report*.

The *Williams Lake Timber Supply Area Analysis Report* will be one of the documents that the chief forester will consider in making the allowable annual cut determination under Section 8 of the *Forest Act*. Public input is encouraged in order to ensure the best information is used in determining allowable annual cuts.

This report contains a general description of the data assumptions and current forest management practices related to timber supply for the Williams Lake timber supply area. For the purpose of this timber supply review, current practice can be defined as the set of land-use decisions and forest management practices that are implemented and enforced.

The draft data and management assumptions are summarized on pages six through ten. For a more detailed description of the information or a copy of the data package, please contact the Cariboo Forest Region office in Williams Lake, the Chilcotin Forest District office located in Alexis Creek, the Williams Lake Forest District office located in Williams Lake, or the Horsefly Forest District office located in Horsefly. The public will have 30 days to review and comment on the information report and data package. A response form at the end of this document will assist you in providing your comments. Written comments will be accepted until September 7, 1999.

Timber Supply Review process

In British Columbia, a process of determining allowable annual cuts has been in place since the late 1940s. However, the process has changed significantly since then. More recently, the process has had some minor revisions designed to improve efficiency and encourage earlier public review through the release of this report.

Figure 1 (next page) illustrates the five-step process that has been developed for the timber supply review for timber supply areas. The diagram indicates the current status of the timber supply review for the Williams Lake timber supply area, and the estimated time required for each step.

Timber Supply Review

in the Williams Lake TSA

Timber supply

A harvest level that is forecasted to be available over time, under a particular management regime.

Timber supply area

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

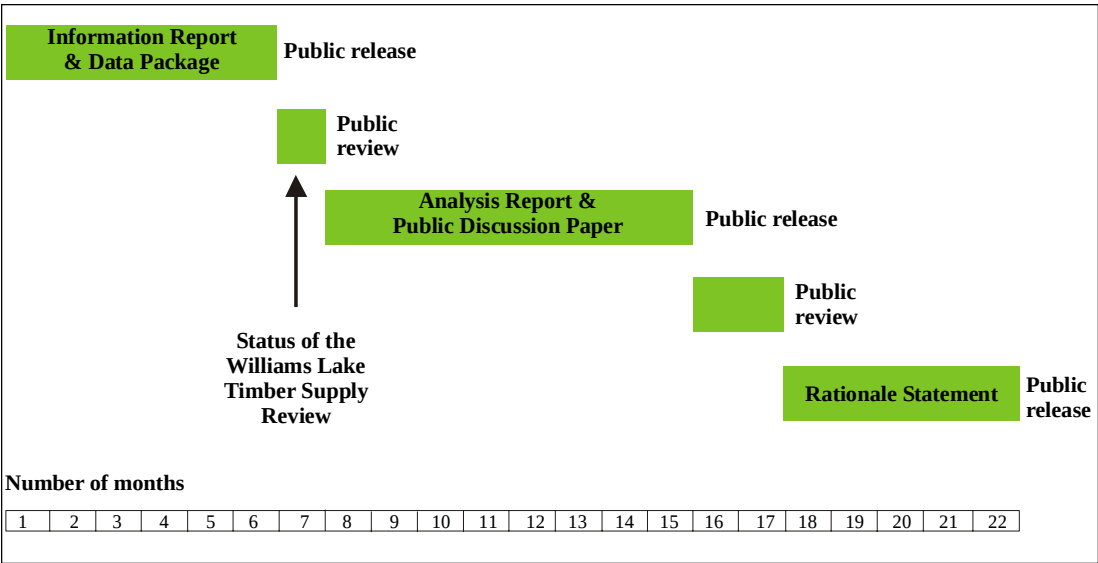
Tree farm licence (TFL)

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

Allowable annual cut (AAC)

The rate of timber harvest permitted each year from a specified area of land, usually expressed as cubic metres of wood per year.

Figure 1.
Review process for
the Williams Lake
timber supply area.



The process for reviewing the timber supply and establishing the allowable annual cut for tree farm license areas is based on similar principles; however, the process takes 30 months from start to completion.

The chief forester's responsibility

Determining the allowable annual cuts for Crown forest lands in British Columbia is the responsibility of the province's chief forester. It is one of the chief forester's most important responsibilities since it affects the local and provincial economies and environment—now and in the future. Section 8 of the *Forest Act* requires the chief forester to consider the following factors to determine allowable annual cuts for timber supply areas and tree farm license areas:

- a) 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
 - silvicultural treatments, including reforestation
 - standards of timber utilization

- constraints on the amount of timber produced from the area due to use of the forest for purposes other than timber production
- any other information which relates to the capability of the area to produce timber

- b) the short- and long-term implications to the province of alternative rates of timber harvesting from the area
- c) the nature, production capabilities and timber requirements of established and proposed processing facilities
- d) the economic and social objectives of the Crown for the area, the region and the province, as expressed by the minister of forests
- e) 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. Information that is relevant to the factors listed above is provided to the chief forester by government agencies, the minister of forests and the public.

One of the objectives of the Timber Supply Review is to incorporate changes arising from new information, new practices and new government initiatives

that may have an impact on timber supply. In the event of significant change, the allowable annual cut may be reviewed in less than the required five years.

Following the release of the allowable annual cut determination by the chief forester, the minister of forests apportions the cut to the various licenses and programs.

Principles of the Timber Supply Review

In determining allowable annual cuts—in addition to the requirements outlined in Section 8 of the *Forest Act*—the following principles have been developed.

The Timber Supply Review:

- is a decision-making process for establishing the allowable annual cut for timber supply areas and tree farm license areas by the chief forester on a maximum five-year cycle, as required under Section 8 of the *Forest Act*; **it is not a process for making land-use or management decisions**
- incorporates the best information available including all relevant current practices, and identifies where new information is needed
- reflects the results of implemented plans and land-use decisions, and provides a benchmark for future planning processes
- involves other agencies, affected groups, and the public.

Cariboo-Chilcotin Land-Use Plan

The *Cariboo-Chilcotin Land-Use Plan* was approved by government in October 1994 and subsequently declared a higher-level plan under the *Forest Practices Code of BC Act**. With the advice of the regional resource board, the Interagency Management Committee developed additional information regarding implementation of the *Cariboo-Chilcotin*

Land-Use Plan and the *Integration Report*. The higher-level plan was varied on June 22, 1999 and the *Cariboo-Chilcotin Land-Use Plan - Integration Report* was given official government status. The timber supply review will reflect the practices that are currently being implemented towards achieving the objectives of the land-use plan.

With the approval of the *Cariboo-Chilcotin Land-Use Plan*, eleven new protected areas* were established. The protected areas are removed from the timber harvesting land base for the timber supply review.

Description of the timber supply area

The Williams Lake timber supply area is situated in the central interior of the province of British Columbia, and is dissected by the Fraser River. In the west, the timber supply area is bounded by Tweedsmuir Provincial Park and the Coast Mountains. The timber supply area is bounded by the Quesnel timber supply area in the north, Wells Gray Park and Mitchell-Niagara Park in the east, and 100 Mile House timber supply area and Chilcotin Mountains in the south. In total, the timber supply area covers 4.9 million hectares, of which approximately 69 per cent is productive Crown forest. This timber supply area is administered by the Williams Lake Forest District, located in Williams Lake, Chilcotin Forest District located in Alexis Creek, and Horsefly Forest District located in Horsefly.

The communities

The major administrative and commercial centre in the timber supply area is the City of Williams Lake. Other smaller centres include Alexis Creek, and Anahim Lake in the west, and Horsefly and Likely in the east. Ten First Nation communities are also located within the timber supply area.

Timber Supply Review

in the Williams Lake TSA

Forest Practices Code of BC Act

Legislation, standards and guidebooks that govern forest practices and standards, with heavy penalties for violators.

Protected area

A designation for areas of land and water set aside to protect natural heritage, cultural heritage or recreational values (may include national park, provincial park, or ecological reserve designations).

Indirect and induced jobs

Indirect jobs are supported by direct business purchases of goods and services. Induced jobs are supported by employee purchases of goods and services; for example, at retail outlets.

According to the 1996 Census, the population of the timber supply area was 27,260, an increase of about five per cent from 1991. The City of Williams Lake forms the largest populated area with 10,500 people. By the year 2001, the population of the timber supply area is expected to grow to 30,000, an increase of ten per cent.

The economy

The economy of the Williams Lake timber supply area is well diversified, with forestry as the dominant sector. Figure 2 illustrates total employment by major industry sector for the timber supply area, where forestry accounts for more than 30 per cent of the timber supply area's total employment. Other major sectors in the area are the public sector, tourism, agriculture and ranching.

Forestry employment is supported by harvesting, silviculture activity, and the processing of wood at the major sawmills. These include four major lumber mills and a plywood mill in Williams Lake as well as a lumber mill at Nimpo Lake. In 1998, total employment in wood processing plants exceeded 1,400 people. Secondary wood

processing facilities include several value added mills and log home manufacturers.

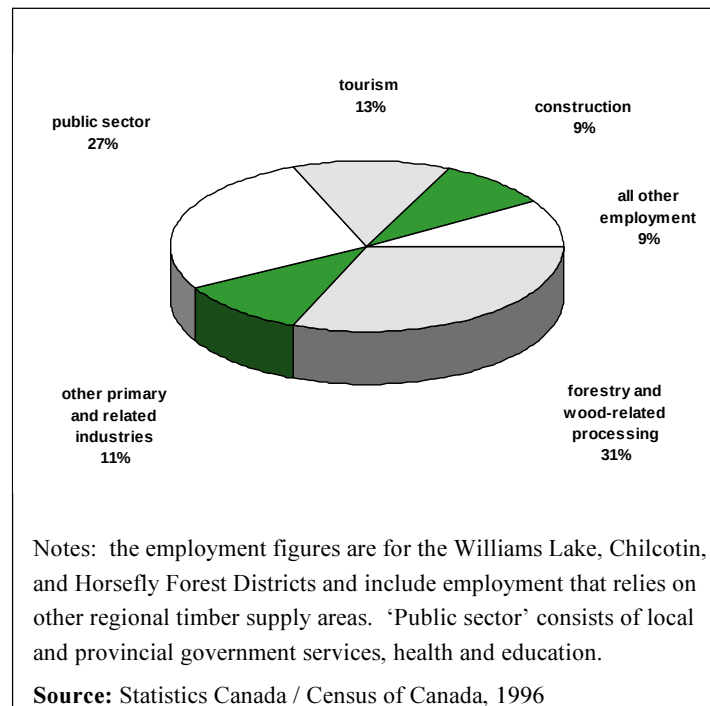
The forestry sector supports other jobs in the region through companies and employees purchasing goods and services from local businesses. This spending is another indicator of the role of forestry in the economy. For every 100 direct forestry jobs in the Williams Lake timber supply area, another 29 to 58 indirect and induced jobs* are supported, depending on the type of forest activity (logging or manufacturing) and the associated level of income. In comparison, every 100 jobs in the public sector or tourism industry support another 8 to 34 positions.

First Nations

A number of Northern Shuswap, Southern Shuswap, Tsilhqot'in and Carrier Bands, and one Stl'atl'imx Band have claimed traditional territory within the timber supply area. These bands are variously affiliated with one or more of the following tribal councils: the Cariboo Tribal Council, Carrier-Chilcotin Tribal Council, the Shuswap Nation Tribal Council, the Lillooet Tribal Council, and the Tsilhqot'in National Government. The tribal associations assist the member bands with strategic planning, economic development and coordination of information regarding the lands traditionally claimed by the bands.

Archaeological overview assessments have been completed for the timber supply area. The archaeological overview assessments define areas of archaeological potential and list all recorded archaeological sites. The Canoe Creek, Soda Creek, Williams Lake, Canim Lake, and Alkali Lake Bands have conducted traditional use studies of their traditional territories. The Tsilhqot'in

Figure 2.
Major employment by sector for the Williams Lake timber supply area, 1996.



National Government is currently coordinating a traditional use study encompassing six of the seven member bands.

A number of other non-resident First Nations have claimed traditional territory extending into the timber supply area, including the Nuxalk, Homalco and Kwakiutl First Nations.

The forest land resources

Numerous natural resources are associated with the forest land base. Forest products, recreation and tourism, ranching, and wildlife habitat highlight the wide range of resources and values found in the Williams Lake timber supply area. West of the Fraser River, the area is characterized by the drier climate of the Chilcotin Plateau and predominately lodgepole pine forests, and eventually meets with the Coast Mountains. The central portion of the timber supply area is dissected by the Fraser River where farm and range lands predominate and are interspersed with stands of Douglas-fir. East of the Fraser River, the terrain gently increases in elevation to meet with the Cariboo Mountains and Quesnel Highland and produces forests of spruce, western redcedar, western hemlock, and subalpine fir.

Rangeland areas provide forage vegetation for both livestock and wildlife. There are two types of rangelands: permanent rangeland where substantial amounts of forage can be found in the same area over time, and transitory rangeland, where forage is temporarily available a few years following harvesting or fire.

Parks, recreation sites and trails, and roaded and non-roaded areas provide opportunities for numerous outdoor activities. Recreational activities include hiking, canoeing, hunting, camping, guided horse tours, fishing, snowmobiling, and cross-country skiing.

The environment

There are nine forested biogeoclimatic zones* in the Williams Lake timber supply area. The distinct ecological features contribute to high biodiversity values. In the western portion of the timber supply area, high elevation areas are characterized by lodgepole pine and sub-boreal spruce stands. These areas are exposed to frequent wildfires resulting in lodgepole pine forests that are generally young and even-aged with closely-spaced trees. Douglas-fir and lodgepole pine forests predominate in areas adjacent to the Chilcotin River.

The central portion of the timber supply area surrounding the Fraser River is characterized by mature Douglas-fir forests and bunchgrass. In areas where fires have occurred in the crowns of the trees, stands of Douglas-fir and lodgepole pine have regenerated.

In the eastern portion of the timber supply area, dominant tree species range from lodgepole pine and sub-boreal spruce near the Fraser River, to Engelmann spruce and subalpine fir in the Cariboo Mountains and Quesnel Highland. The high elevation alpine areas of the Cariboo Mountains are blanketed with alpine shrubs, herbs and lichens.

The diverse forests host a range of wildlife species, of which some are considered to be endangered or threatened. Examples in the Williams Lake timber supply area include the American white pelican, the prairie falcon, and northern goshawk. Species considered to be potentially threatened by human activities or natural events include bull trout, sandhill crane, grizzly bear, and California bighorn sheep. Habitat for mule deer and caribou is managed according to specific management requirements.

Timber Supply Review

in the Williams Lake TSA

Biogeoclimatic zones

A large geographic area with broadly homogeneous climate and similar dominant tree species.

Timber Supply Review

in the Williams Lake TSA

History of the allowable annual cut

On December 18, 1995, the chief forester set the allowable annual cut at 3,807,000 cubic metres, a decrease of 168,000 cubic metres from the 1992 determination. The allowable annual cut was reconfirmed in the *Rationale for reconsideration of Allowable Annual Cut determination, March 31, 1997*.

As part of the 1995 and 1997 determinations, the chief forester gave direction to resolve uncertainties with respect to the timber supply in the Williams Lake timber supply area. In preparation for the next allowable annual cut determination, the following issues were to be examined:

- **roads, trails and landings** - the previous determination noted uncertainty about the amount of area to be removed from the timber harvesting land base for the roads, trails and landing.

In preparation for this timber supply review, Forest Service staff updated the mapping of existing roads, and created a data base that will allow area-specific deductions in the analysis. For future roads, staff reviewed the records for recently harvested areas and determined the area occupied by roads, trails and landings. Based on this review future roads, trails, and landings will be accounted for by deducting 4.1 per cent of the forested areas in the western portion of the timber supply area, and 6.2 per cent in the eastern portion from the timber harvesting land base.

- **regeneration delay** - in the previous allowable annual cut determination, the chief forester requested a review of the length of time taken for harvested areas to be fully restocked.

The district staff reviewed the silviculture record keeping systems, and determined natural and planted stands are regenerated within the required time

frames. This information reflects current practice and will be included in the timber supply analysis.

- **problem forest types** - in the Williams Lake timber supply area, problem forest types are stands of poor quality or low volume and are considered uneconomical to harvest. In the previous determination, the chief forester requested a more accurate accounting of areas classified as problem forest types.

Since the last determination, Forest Service staff have reviewed and assessed problem forest types in the Williams Lake timber supply area. As a result of the assessment, several new classifications were created: currently unharvested stand types, forest inventory operational discrepancy types and marginal forest types.

Currently unharvested stand types are not expected to be harvested. Marginal forest types are likely to be harvested, and their contribution to the timber supply area harvest levels will be reviewed as part of the timber supply analysis.

The remaining mature problem forest types are redefined as “forest inventory operational discrepancy types” (western redcedar and hemlock stands with high total stand volume, that produce low net volumes due to high levels of decay). The new classifications will be used in the timber supply review.

- **Cariboo-Chilcotin Land-Use Plan implementation** - in the last determination, the chief forester requested that the Forest Service monitor the implementation of the land-use plan to determine related timber supply implications.

Land-use plan strategies and current management practices implemented in integrated, enhanced and special management zones, as well as officially declared protected areas, will be reflected in the timber supply analysis.

- **mountain pine beetle** - in the last determination the chief forester requested staff to monitor the salvage harvesting of timber damaged by the mountain pine beetle.

Since the last determination mountain pine beetle salvage has continued. The harvest level for this timber is declining and will be accounted for in the timber supply analysis.

Note: For more information on these points, please refer to the Williams Lake Timber Supply Area Rationales for Allowable Annual Cut Determination, March 31, 1997, and December 18, 1995.

Current Timber Supply Review

Public forest lands in British Columbia provide recreational enjoyment, fish and wildlife habitats, water supplies, timber resources and many other benefits. The Ministry of Forests manages the timber, range and recreation resources on public lands, while the Ministry of Environment, Lands, and Parks is responsible for the management of fish, wildlife, water resources and parks. Both agencies subscribe to the principle of integrated resource management*, whereby all resources are considered when making forest management decisions.

The Forest Practices Code is now law and has been implemented in the timber supply area since June 15, 1997. The new practices may influence both the short- and long-term timber supply.

The data and management assumptions that will be used in the timber supply analysis will be based on the existing land-use designations and current resource management practices that are approved and implemented in the Williams Lake timber supply area. Uncertainties about some of the data regarding current practices, and their potential effects on timber supply will be examined through

sensitivity analyses. The chief forester will also consider any new information, or changes in practices, at the time of the allowable annual cut determination.

Draft data and management assumptions for public review

The public is encouraged to review the data and management assumptions for completeness and accuracy. In determining an allowable annual cut, the chief forester will be considering these assumptions as required by Section 8 of the *Forest Act*. The following general outline contains a brief description of the more pertinent information that will be used in the timber supply analysis and subsequently, in the chief forester's allowable annual cut determination for the Williams Lake timber supply area. More detailed information can be found in *Appendix A: Data Package*. This appendix is available upon request from the Forest Service offices listed at the end of this report.

Land base factors

- **operable area** - areas are assessed for operability considering economic, ecological and physical attributes. For the Williams Lake Timber Supply Review, all forested areas classified as inoperable will be excluded from the timber harvesting land base.
- **environmentally sensitive areas*** - for the Williams Lake timber supply area, environmentally sensitive classification was done for sensitive soils, high avalanche risk, regeneration problems, recreation, hydrology, and wildlife habitat.

Areas identified as having highly sensitive soils, regeneration problems, hydrology concerns or high avalanche risk will be excluded from the timber harvesting land base. Environmentally

Timber Supply Review

in the Williams Lake TSA

Integrated resource management

The identification and consideration of all resource values, including social, economic and environmental needs, in resource planning and decision-making.

Environmentally sensitive areas

Areas identified as requiring special management to protect important recreation and scenic values, fisheries resources, sensitive soils and unstable slopes.

Timber Supply Review

in the Williams Lake TSA

Cutblock

A specific area, with defined boundaries, authorized for harvest.

Green-up

The time needed after harvesting for a stand of trees to reach a desired condition (usually a specific height) — to ensure maintenance of water quality, wildlife habitat, soil stability or aesthetics — before harvesting is permitted in adjacent areas.

sensitive recreation areas will not be excluded from the timber harvesting land base as these areas overlap with visual and lake-shore management areas where harvest constraints are applied. Also, no reductions will be made for environmentally sensitive wildlife areas. Instead, environmentally sensitive wildlife areas are covered with the specific management regimes for mule deer winter ranges, caribou habitat, riparian management, and wildlife tree patches to be used in the timber supply analysis.

- **cultural heritage resources** - an Archaeological Overview Assessment was completed in 1998. The assessment identifies areas where archaeological resources may potentially occur, as well as existing archaeological sites.

Known archaeological sites recorded with Archaeology Branch of the Ministry of Small Business, Tourism and Culture, are managed operationally with minimal impact on timber supply. As new information on archaeological sites is recorded, it will be incorporated in future timber supply analyses.

Inventory factors

- **forest inventory** - the forest inventory has updates ranging from 1994 to 1998, and takes into account the recent re-inventory, harvesting, silviculture activities, and newly awarded woodlot license areas.

In the Williams Lake timber supply area, lodgepole pine and Douglas-fir account for most of the harvest volume at the lower elevations. At mid-elevation, in the eastern portion, the predominant species are western redcedar and western hemlock, while white spruce and subalpine fir are predominant at higher elevations.

- **minimum harvestable ages** - the minimum harvestable age is defined as the earliest age at which a forest stand is estimated to reach a merchantable condition. In the timber supply analysis, the ages for conifer stands with no mountain pine beetle attack will be

based on achieving a minimum volume of 65 cubic metres per hectare and a species-specific minimum height before the stand is 160 years of age. Pine stands with greater than 30 per cent mountain pine beetle attack must achieve a minimum of 40 cubic metres live wood per hectare. Deciduous stands available for harvest under the Pulpwood Agreement 16 have a minimum harvest volume requirement of 65 cubic metres per hectare.

Forest re-establishment factors

- **basic silviculture** - British Columbia laws require that areas harvested and expected to produce timber in the future must be reforested with ecologically acceptable species within a specified time frame. The most common silvicultural practice is to harvest; then if necessary, prepare the site for reforestation; reforest by planting a mix of species or by relying on natural regeneration; and finally if necessary, control competing vegetation.

In the Williams Lake timber supply area, reforestation is achieved predominately by natural regeneration, and supplemented with planting a mixture of acceptable coniferous species. In the timber supply analysis, it is assumed that planted areas will generally be reforested within two years after harvesting, and naturally regenerated areas will be reforested within four years.

Timber utilization factors

- **timber utilization** - volume estimates will be based on the utilization of trees which meet or exceed the following standards (with some exceptions as noted below): a minimum 10-centimetre top diameter (inside bark) and a minimum diameter of 17.5 centimetres at 1.3 metres above the ground. For lodgepole pine stands, a minimum diameter of 12.5 centimetres at 1.3 metres above ground is used. All species must be utilized to a maximum 30-centimetre high stump.

For deciduous stands available under Pulpwood Agreement 16, the utilization standard is a minimum 8-centimetre top diameter (inside bark), and a minimum diameter of 10 centimetres at 1.3 metres above the ground. The maximum stump height for all deciduous species is 30 centimetres.

Infestations, devastations, and salvage of timber

Each year, portions of the forests in the Williams Lake timber supply area are damaged by natural agents such as fire, wind, diseases, insects and landslides. It is anticipated that some of the damaged timber will not be salvaged due to road access and economic limitations, or other environmental considerations. The annual unsalvaged volume for the Williams Lake timber supply area is estimated to be 53,500 cubic metres.

Factors to be considered for purposes other than timber production

Forest management guidelines used to manage forest resources such as biodiversity, scenic values, wildlife habitat and water quality will be included in the timber supply analysis through the use of forest cover requirements, and volume and land-base reductions.

- **general forest cover requirements** - under current forest management practices, cutblocks* must achieve green-up* before adjacent areas are permitted to be harvested. To account for this in the timber supply analysis, in multiple resource use areas, a maximum of 30 per cent of the timber harvesting land base will be allowed to have trees less than three metres tall at any time.
- **wildlife habitat areas** - high-value mule deer winter range and caribou modified harvest areas established by the *Cariboo-Chilcotin Land-Use Plan* will contribute to the timber supply on a limited basis.

For mule deer winter range, 20 per cent of the volume of Douglas-fir stands, depending on current conditions, will contribute to the timber supply with a minimum of 30-50 years between entries.

Different parts of the caribou modified harvest areas are managed for either arboreal or terrestrial lichen. Areas with terrestrial lichen are managed on a 140-year cycle with 50 per cent retention, and areas with arboreal lichen will have a 240-year cycle with 33 per cent retention.

- **riparian habitat*** - to meet the requirements of the Forest Practices Code, a portion of the forest land base will be considered unavailable for timber harvesting to account for riparian habitat areas along streamsides, or around lakes and wetlands. The deductions will be based on a review of silviculture prescriptions in each forest district.
- **visually sensitive areas** - in areas where the maintenance of scenic landscapes is a priority for recreation and tourism management, road construction and logging are planned and implemented to minimize visual impacts. Such areas are often adjacent to tourism operations, major travel corridors and waterways.

Visually sensitive areas are identified in the Williams Lake timber supply area. In the analysis, the proportion of visually sensitive areas in Williams Lake and Chilcotin Forest Districts with trees less than three metres tall will be limited to a maximum of between five and 25 per cent of the forested area. In the Horsefly Forest District, between 10 and 20 per cent of the forested areas can be less than five metres tall at any time.

- **biological diversity** - or biodiversity*, is the full range of living organisms, in all their forms and levels of organization, and includes the diversity of genes, species and ecosystems, and the evolutionary and functional processes that link them. The Forest Practices Code requires that biodiversity be considered at both the stand and landscape levels.

Timber Supply Review in the Williams Lake TSA

Riparian habitat

The stream bank and flood plain area adjacent to streams or water bodies.

Biodiversity (biological diversity)

The diversity of plants, animals and other living organisms in all their forms and levels of organization, and includes the diversity of genes, species and ecosystems, as well as the evolutionary and functional processes that link them.

Timber Supply Review

in the Williams Lake TSA

Coarse woody debris

Logs and stumps that provide habitat for plants, animals and insects, and a source of nutrients for soil development.

Wildlife tree

A standing live or dead tree with special characteristics that provide valuable habitat for conservation or enhancement of wildlife.

Seral stages

Sequential stages in the development of plant communities that successively occupy a site and replace each other over time.

Landscape unit

A planning area based on topographic or geographic features, that is appropriately sized (up to 100 000 hectares), and designed for application of landscape-level biodiversity objectives.

For stand-level biodiversity, leaving coarse woody debris* and wildlife trees* patches is the current practice in the Williams Lake timber supply area. Generally, coarse woody debris objectives can be met by the contributions of non-merchantable timber left on the ground following harvesting. The current practice for leaving wildlife tree patches is for a percentage of the harvested area—based on units defined by the *Biodiversity Conservation Strategy* and modified by the *Cariboo-Chilcotin Land-Use Plan - Integration Report*—to be retained as standing timber. Wildlife tree patches will be managed on an extended rotation and be eligible for future harvest if adjacent forest is available to replace them. This regime will be reflected in the analysis.

Landscape-level biodiversity will be addressed in the timber supply analysis by applying seral stage* objectives to the draft landscape units* identified in the Cariboo Region Landscape Unit Planning Strategy. As part of the timber supply analysis, several sensitivity analyses will be used to examine the potential impacts on timber supply of varying the management for biodiversity.

Implications of alternative rates of harvesting

- **alternative rates of harvesting** - there are many alternative harvest forecasts that can be produced for a given set of forest conditions and management assumptions. Each alternative usually represents a trade-off between the harvest level in the short term and the subsequent transition to the long-term harvest level. For the projected base case forecast*, the initial harvest forecast will focus on achieving the current rate of harvest in the short term without compromising the long-term harvest level. The implications of alternative short-term rates of harvest will be tested in sensitivity analyses.

- **implications related to community dependence** - the impact of timber supply adjustments on local communities and the provincial economy is an important consideration in the timber supply review. The 1995 *Williams Lake Timber Supply Area Socio-Economic Analysis* reported that harvesting, silviculture and processing, provided direct employment of 4,381 person-years*, and 1,518 person years of indirect and induced employment in the Williams Lake timber supply area.

The socio-economic section of the upcoming timber supply analysis report will review the role of the forest sector in the Williams Lake timber supply area. To provide this update, current information on employment and fiber flows will be gathered from licensees, processing facilities, the Forest Service and other stakeholders. Indirect and other related employment at both the local and provincial levels will also be provided by the Ministry of Finance and Corporate Relations.

To examine the implications of alternative rates of harvest, employment coefficients, reported in person-years per 1,000 cubic metres, will be developed and used to estimate changes to employment levels now and in the future from any potential harvest level changes.

Timber processing facilities

The socio-economic analysis will examine the implications of potential changes of timber supply for the area's timber processing facilities. In 1999, the primary timber processing facilities include four large primary mills and one plywood mill. Additional wood processing plants include two chip mills and several log home builders.

The combined primary processing facilities used an estimated three million cubic metres of logs in 1998.

Economic and social objectives of the Crown

In a letter and a memo to the chief forester, the minister of forests has expressed the Crown's economic and social objectives for the province. The harvest flow objectives to be used in the timber supply analysis (see previous section, "*Implications of alternative rates of harvesting*") are consistent with the minister's stated objectives.

In addition, economic and social objectives for the area and the general region are derived from public input.

Your input is needed

Establishing the allowable annual cut is an important decision that requires well-informed and thoughtful public input. Feedback is welcomed on any aspect of this *Information Report*, the *Data Package Appendix* and other topics related to the timber supply in the Williams Lake timber supply area. The response form at the end of this document will assist you in preparing your comments. As well, Forest Service staff would be pleased to discuss questions or concerns that may help you prepare your response.

Please mail the completed response form and your comments to the regional manager or forest district manager at the address below. Your comments will be accepted until September 7, 1999.

After receiving public input, the Forest Service will finalize the data and management assumptions that will be applied in the timber supply analysis. The timber supply analysis will be complete and available for public review in spring 2000. You may also wish to participate in the second public review period, which will follow the release of the *Williams Lake Timber Supply Area Analysis Report*.

Following the second public review period, the chief forester will examine all the information available in order to review the timber supply for the Williams Lake timber supply area. The chief forester will then establish the allowable annual cut based on his consideration of the factors as required under Section 8 of the *Forest Act*.

You may identify yourself on your 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 copies of the responses are requested, personal identifiers will be removed before the responses are released.

Timber Supply Review

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Base case forecast

The timber supply forecast which illustrates the effect of current forest management practices on the timber supply using the best available information, and which forms the reference point for sensitivity analysis.

Person-year(s)

One person working the equivalent of one full year, defined as at least 180 days of work. If someone works full-time for 90 days, he or she accounts for 0.5 person years.

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

District Manager
B.C. Forest Service
Chilcotin Forest District
Box 65,
Stum Lake Road,
Alexis Creek, B.C.
V0L 1A0

Phone: (250) 394-4700
Fax: (250) 394-4515

District Manager
B.C. Forest Service
Horsefly Forest District
Box 69,
Horsefly Lake Road,
Horsefly, B.C.
V0L 1L0

Phone: (250) 620-3200
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District Manager
B.C. Forest Service
Williams Lake Forest District
925 North 2nd Avenue,
Williams Lake, B.C.
V2G 4P7

Phone: (250) 305-2001
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Regional Manager
B.C. Forest Service
Cariboo Forest Region
640 Borland Street
Williams Lake, B.C.
V2G 4T1

Phone: (250) 398-4345
Fax: (250) 398-4759

or electronically to:
Eric.Johansen@gems9.gov.bc.ca

Information Report Response Form

- the rate of timber production that can be sustained from the area;
- the short- and long-term implications to the province of alternative rates of timber harvesting from the area;
- the nature, production capabilities and timber requirements of established and proposed timber processing facilities;
- the economic and social objectives of the Crown for the area, the general region, and the province, as expressed by the minister of forests, and;
- abnormal insect or disease infestations and major salvage programs planned for the area.

A. Economic and social objectives

[illegible]

Please use the space below to provide your comments regarding the draft data and management assumptions contained in this report or other information that you believe should be considered in the timber supply analysis for the Williams Lake timber supply area.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Address (optional): _____

District Manager B.C. Forest Service Chilcotin Forest District Box 65, Stum Lake Road, Alexis Creek, B.C. V0L 1A0 Phone: (250) 394-4700 Fax: (250) 394-4515	District Manager B.C. Forest Service Horsefly Forest District Box 69, Horsefly Lake Road, Horsefly, B.C. V0L 1L0 Phone: (250) 620-3200 Fax: (250) 620-3540	District Manager B.C. Forest Service Williams Lake Forest District 925 North 2nd Avenue, Williams Lake, B.C. V2G 4P7 Phone: (250) 305-2001 Fax: (250) 305-2034	Regional Manager B.C. Forest Service Cariboo Forest Region 640 Borland Street Williams Lake, B.C. V2G 4T1 Phone: (250) 398-4345 Fax: (250) 398-4759
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or electronically to:
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APPENDIX A

Data Package

Description of Data Inputs and Management Assumptions

This appendix is available upon request from the
Ministry of Forests.

Offices are located at:

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