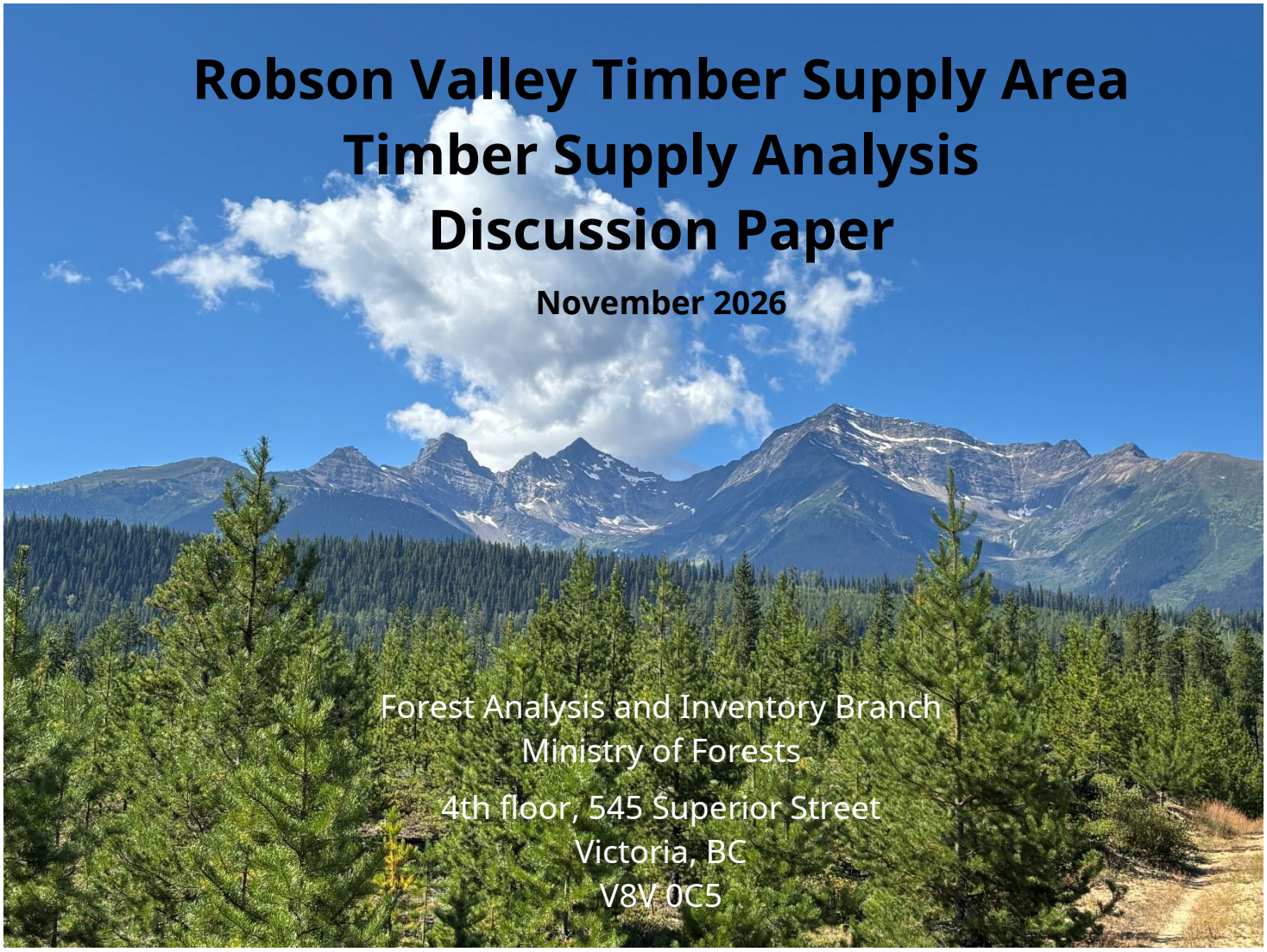
# Robson Valley Timber Supply Area
# Timber Supply Analysis
# Discussion Paper

**November 2026**



Forest Analysis and Inventory Branch
Ministry of Forests
4th floor, 545 Superior Street
Victoria, BC
V8V 0C5

BRITISH COLUMBIA | Ministry of Forests

Cover photograph of Robson Valley TSA courtesy of

Tammy Baerg, RPF, Stewardship Officer, Omineca Region

# Table of Contents

**INTRODUCTION** ..... 1
**TIMBER SUPPLY REVIEW IN THE ROBSON VALLEY TSA** ..... 2
Description of the Robson Valley TSA ..... 2
**REGIONAL ECONOMY** ..... 3
Environmental Values ..... 4
Natural Resources ..... 4
**FIRST NATIONS AND CONSULTATION PROCESS** ..... 4
**LAND USE PLANNING** ..... 5
**ALLOWABLE ANNUAL CUT** ..... 6
Harvest History ..... 6
**LAND BASE AND FOREST MANAGEMENT CHANGES** ..... 7
**MODELLING CHANGES** ..... 7
**CURRENT FOREST MANAGEMENT** ..... 8
Land Base Description ..... 10
**DATA PACKAGE UPDATES** ..... 14
**TIMBER SUPPLY ANALYSIS** ..... 14
Base Case Harvest Projection ..... 15
Base Case Metrics ..... 16
Alternative Harvest Flow ..... 19
Sensitivity Analyses ..... 21
**CONCLUSION** ..... 31
**YOUR INPUT IS NEEDED** ..... 32

## List of Figures

Figure 1. Overview map of the Robson Valley Timber Supply Area. ..... 3
Figure 2. Historic harvest performance of the Robson Valley TSA. ..... 7
Figure 3. Biogeoclimatic ecosystem classification zones in Robson Valley TSA ..... 10
Figure 4. Total Species Volume for THLB and non-THLB in the AFLB for Robson Valley TSA, the summary is for all species within a stand based on the vegetation resource inventory. ..... 11
Figure 5. Age class distribution in the THLB and non-THLB in the Robson Valley TSA. ..... 12
Figure 6. Site index distribution in the THLB and non-THLB in Robson Valley TSA. ..... 13
Figure 7. Slope % distribution in the THLB and non-THLB and harvesting (past 25 years) in Robson Valley TSA. ..... 13
Figure 8. Current base case timber supply projection vs base case from the previous TSR for the Robson Valley TSA, including current AAC. ..... 15
Figure 9. Total and available growing stock for the base case – Robson Valley TSA ..... 16
Figure 10. Harvest volume profile by natural, managed, and future managed stand types for the base case – Robson Valley TSA. ..... 17
Figure 11. Mean volume per hectare and mean harvest age for the base case – Robson Valley TSA. ..... 18
Figure 12. Area harvested overtime for the base case – Robson Valley TSA ..... 19
Figure 13. Alternative harvest flow projection Robson Valley TSA. ..... 20
Figure 14. Total harvest volume and non-managed harvest contribution under the Managed Stand Priority compared with the base case. ..... 22
Figure 15. Proportion of annual harvest volume by age class under the Managed Stand Priority compared with the base case. ..... 23
Figure 16. Harvest Flow under Alternative Wildfire Disturbance Assumptions and Climate Change Scenarios. ..... 25

## List of Tables

Table 1. Derivation of the Robson Valley TSA timber harvesting land base. ..... 9
Table 2. Select sensitivity analyses for the Robson Valley TSA. ..... 21
Table 3. Additional sensitivity analyses completed for the Robson Valley TSA ..... 27

## Introduction

The British Columbia (BC) Ministry of Forests (the "Ministry") regularly reviews the timber supply[a] for all timber supply areas[b] (TSA) and tree farm licences[c] (TFL) in the province. This review 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 province. Information gathered in this review will be used by the chief forester when determining a new allowable annual cut[d] (AAC) for the Robson Valley TSA.

According to Section 8 of the *Forest Act* the chief forester must determine an AAC for each TSA and TFL in the Province of BC at least once every 10 years. If information indicates that the AAC is not likely to change the chief forester may postpone a determination for a further five years, making the total possible time between AAC determinations 15 years.

The objectives of the timber supply review (TSR) are to:

- examine relevant forest management practices, environmental and social factors, and input from First Nations, forest licensees, and the public;
- support the chief forester's AAC determination; and,
- identify information to be improved for future TSRs.

This *Discussion Paper* provides a summary of the results of the timber supply analysis for the TSR of the Robson Valley TSA. Details about the data and assumptions used in the analysis were provided in the Robson Valley TSA Timber Supply Review *Data Package* (September 2025).

Further details regarding the description of the updated technical information (as described in the *Data Package*) are available on request from the Ministry's Forest Analysis and Inventory Branch.

[a] **Timber supply areas (TSA)**
*Timber supply areas are integrated resource management units established in accordance with Section 7 of the* Forest Act.

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

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

[d] **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.*

The timber supply analysis should be viewed as a "work in progress". Prior to the chief forester's AAC determination for the TSA, further analysis may need to be completed, and existing analysis reassessed because of input received over the review period for this *Discussion Paper*.

## Timber Supply Review in the Robson Valley TSA

In September 2025, a *Data Package* documenting the data and forest management assumptions to be used in this timber supply analysis was released for public review and to assist with ongoing First Nations engagement and consultation. This *Discussion Paper* provides an overview of the TSR and highlights the key findings of the timber supply analysis.

Before setting a new AAC, the chief forester will review all relevant information, including the results of the timber supply analysis and input from government agencies, First Nations, the public, and forest licensees. Following this review, the chief forester's determination will be outlined in a publicly available *Rationale*. The actual AAC that is determined by the chief forester during this TSR may differ from the harvest projections presented in this *Discussion Paper* as the chief forester must consider a wide range of information, some of which is not quantifiable. Ultimately, the chief forester's AAC determination is an independent, professional judgment based on the legal requirements set out in Section 8(8) of the *Forest Act*.

Once the chief forester has determined a new AAC, the Minister of Forests may apportion the AAC to the various licence types and programs according to Section 10 of the *Forest Act*. Based on the minister's apportionment, the regional executive director will establish a disposition plan that identifies how the available timber volume is assigned to the existing forest licences and, where possible, to new licensees.

### Description of the Robson Valley TSA

The Robson Valley TSA is situated in east-central BC along the Alberta border. It is bordered to the west by the Wells Gray and Bowron Lake Provincial Parks, and the Cariboo Mountains Park that connects them, and by the Kakwa Park to the north. To the east are Jasper National Park, Mount Robson and Mount Terry Fox Provincial Parks, and the Willmore Wilderness Park (Figure 1). The TSA is administered by the Prince George Natural Resource District office, located in Prince George.

The terrain of the TSA is varied. The bottomlands of the Rocky Mountain Trench are flat to rolling, while the adjacent snow-capped mountain ranges are rugged with steep forested lower slopes and deeply cut side valleys. The diversity of the landscape is reflected in the broad mix of tree species, the diversity of wildlife habitats, and the wide variety of land-uses in the TSA, including forestry, recreation, agriculture and protected areas.

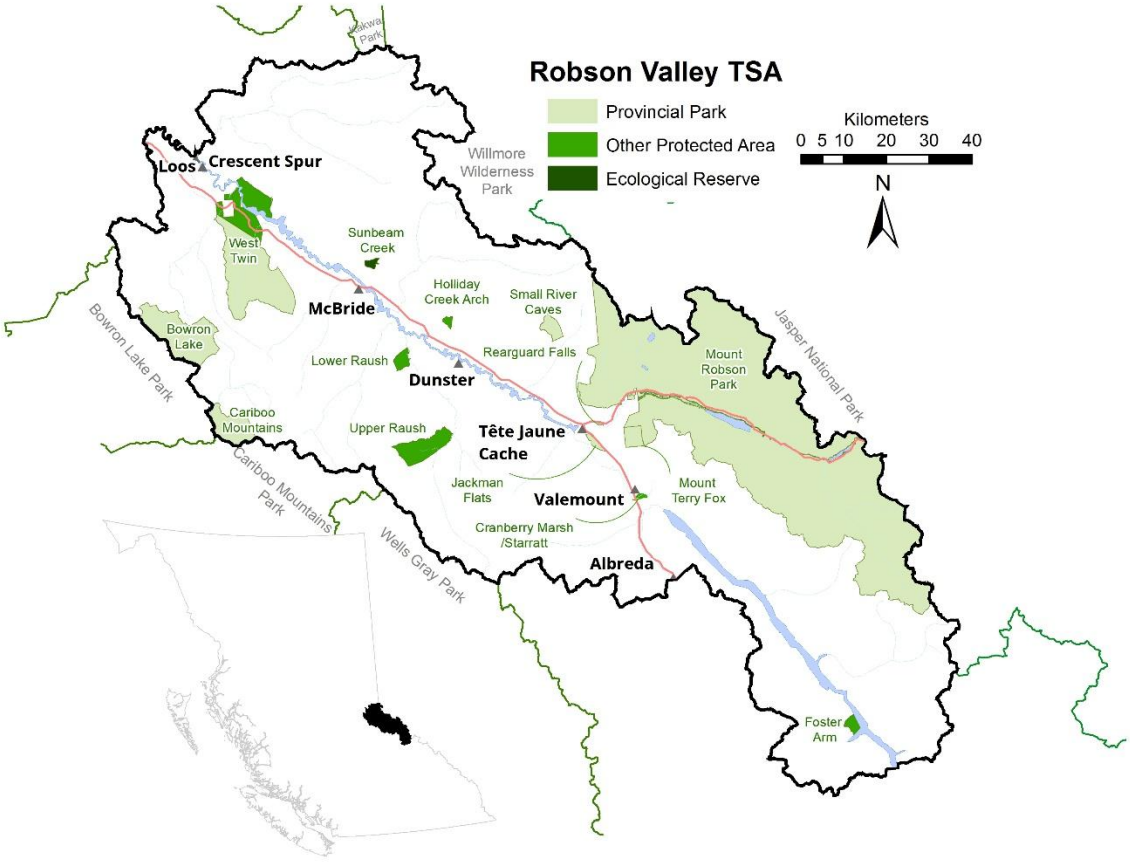



*Figure 1. Overview map of the Robson Valley Timber Supply Area.*

## Regional Economy

The largest communities in the TSA, according to the 2025 BC Stats data, are Valemount (1 082) and McBride (646). Smaller communities include Crescent Spur, Loos, Dunster, Croydon Station, Tête Jaune Cache, and Albreda.

The Local Area Economic Profiles combine census data with BC's input-output tables to estimate regional economic dependencies, employment impacts, and the contribution of industries to local economies. These data are used to assess the regional impact of economic activity and events.

In the 2020 tables, the forest sector accounts for approximately 7.9% of total basic employment in the Robson Valley TSA, represented by the McBride–Valemount local area. The major sources of income are government transfers (26.2%) and non-employment market income (19.8%). Other sectors providing employment for the area include the public sector (12.4%), construction (9.9%), tourism (3.7%), transportation (including truck, rail, and other transport, approximately 5.9%), business services (2.1%), information and communications technology (2.5%), retail trade (1.6%), agriculture and food (1.0%), and utilities and manufacturing (each approximately 0.8–1.0%), while mining and fishing

activity is negligible.

Currently, there are no major sawmills in the Robson Valley TSA. The timber processing sector consists of three small sawmills located near McBride, a larger sawmill located in Valemount, and a handful of small sawyers located throughout the valley. Collectively, only a small portion of the logs harvested in the Robson Valley TSA are processed there as specialty products. The bulk of logs harvested are transported elsewhere, for processing.

### Environmental Values

The Robson Valley TSA encompasses a variety of forest habitats that support diverse wildlife, including mountain caribou, grizzly bear, mountain goat, moose, elk, and deer, along with other notable species such as wolverine, cougar, wolf, and lynx.

The forests of the Robson Valley TSA provide a wide range of resources including timber, forage, non-timber forest products, fish and wildlife habitat, water, and recreation and tourism opportunities. Residents and tourists enjoy outdoor recreation activities such as cross-country skiing, snowmobiling, mountain biking, hiking, camping, trapping, fishing and hunting.

Tree species in the TSA include spruce, subalpine fir (balsam), lodgepole pine, western red cedar, western hemlock, Douglas-fir, white pine, whitebark pine, and various broadleaf species such as trembling aspen, paper birch and cottonwood.

### Natural Resources

Forest management within the Robson Valley TSA is guided by provincial legislation and government objectives that help protect environmental, cultural, and recreational values. Current forest management must be consistent with the requirements of the *Forest and Range Practices Act* and associated regulations, which are designed to maintain a range of biodiversity and wildlife values.

To support a range of values, the timber supply analysis considers objectives for biodiversity, wildlife habitat, visual quality, recreation features, riparian areas, and other environmentally sensitive areas. These considerations help maintain important ecosystem functions while supporting a sustainable timber supply. Forest management also considers Indigenous interests, cultural values, and areas of importance identified by First Nations.

## First Nations and Consultation Process

The Robson Valley TSA forested areas overlaps with the following First Nations/Tribal Councils' asserted territories: Adams Lake Indian Band (Sexqelqin), Ktunaxa Nation Council, Lheidli T'enneh Nation, Lhtako Dene Nation, , Neskonlith Indian Band, Okanagan Indian Band, Okanagan Nation Alliance, Saulteau First Nations, Shuswap Band (Kenpesq't), Simpcw First Nation, Skwlāx te Secwepemcúl̓ecw (Little Shuswap Lake Band), Splatsin First Nation (Spallumcheen), Tsq̓éscen̓ (Canim Lake Band), West Moberly First Nations and

Xatśūll First Nation.

The government has committed to true, lasting reconciliation with Indigenous Peoples. The *Declaration on the Rights of Indigenous Peoples Act* of 2019 (the '*Declaration Act*') creates the path forward for aligning provincial laws with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). While changes to policies, programs, and legislation are underway, TSR processes will be consistent with relevant agreements that are in effect between First Nations and the Province of British Columbia and court decisions that define Aboriginal title and rights.

Two Collaborative Technical Working Groups (CTWG), consisting of First Nations representatives and government staff, were established to support engagement and the exchange of technical information throughout the TSR process. The CTWGs met regularly during the various phases of the review, providing a forum for discussion, collaboration, and the consideration of First Nations interests and perspectives. Ongoing engagement through these groups also informed additional analysis scenarios that were incorporated into the TSR process.

In addition, Treaty Rights or Aboriginal Interests that may be impacted by AAC determinations will be addressed, consistent with the scope of authority granted to the chief forester under Section 8 of the *Forest Act*.

## Land Use Planning

The Robson Valley Land and Resource Management Plan (LRMP), approved in 1999, guides land use across the area through a range of management zones, including resource development, general resource management, special management, settlement and agriculture, and protected areas.

The Robson Valley Sustainable Resource Management Plan (SRMP) builds on this direction by providing a coordinated, landscape-level approach to managing key values such as old growth forests, agricultural lands, and wildlife movement corridors with several legal objectives and orders established under provincial legislation.

Crown Land Plans in the region further guide land use in rural settlement and agricultural areas. While these plans have largely been implemented as policy, some components, such as Agricultural Development Areas, have been legally established under the *Land Act*.

Simpcw First Nation has developed the Simpcw Stewardship Plan to guide natural resource development within Simpcwúlecw (Simpcw Territory), which fully overlaps the Robson Valley TSA. Adopted by Simpcw Chief and Council in September 2023, the plan reflects the exercise of Simpcw Title and Rights and sets out expectations for stewardship across the landscape.

The plan specifies directives-focused Standards of Practice that proponents of natural resource development are expected to achieve, to ensure the continued health and wellbeing of the tmicw (land), tmesmescén (wildlife), séwllkwe (waters), and qelmúcw

(people). The plan is grounded in Simpcw identified values, including the protection of water, cultural uses, important plants and forests, wildlife, and archaeological sites. These expectations build on existing legal requirements, providing an enhanced, values-based approach to landscape stewardship within Simpcw Territory. In addition, the Riviere au Shushwap (R.au.Sh), Indigenous Protected and Conserved Area (IPCA) is now the subject of a collaborative conservation planning process involving the Province, Simpcw First Nation, and others to develop active management and conservation recommendations for the area.

These objectives and practice requirements are incorporated into the TSR and outlined in the *Data Package*.

## Allowable Annual Cut

The AAC is the maximum volume of timber that may be harvested from the Robson Valley TSA each year. The AAC is determined by British Columbia's chief forester based on the best available information regarding forest inventory, growth and yield, forest management objectives, and pertinent social, environmental, and economic considerations.

The last AAC determination for Robson Valley TSA was May 22, 2014. In this determination the AAC was set at 400 000 cubic metres, with a 355 000 cubic metres partition[e] attributable to more accessible areas. Following the establishment of the Valemount Community Forest Agreement in 2016, the AAC was reduced to 363 559 cubic metres, and reduced again to 337 574 cubic metres in 2021 for the establishment of a First Nations Woodland Licence in accordance with the *Allowable Annual Cut Administration Regulation*.

### Harvest History

Actual harvest levels in the TSA have varied over time in response to factors such as market conditions, operating costs, and the availability of harvestable timber.

As can be seen in Figure 2, annual harvested volume over the past 10 years was below the AAC.

[e]**Partition**
*Under Section 8(5) of the* Forest Act *the chief forester in determining an AAC can specify a portion of the AAC that is attributable to certain types of timber, terrain, or areas of the TSA.*

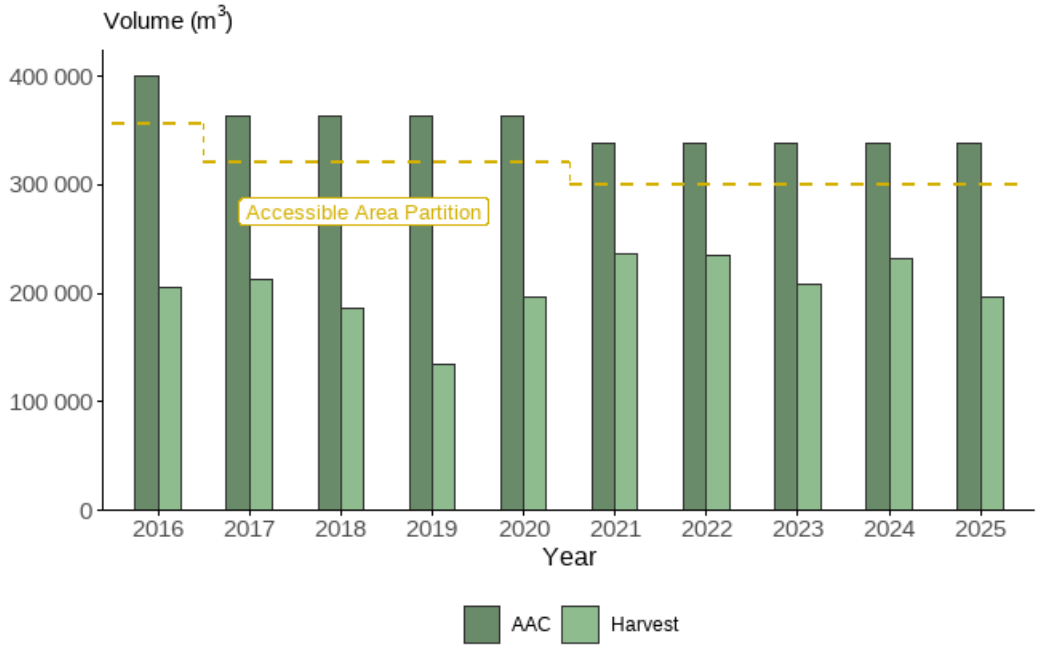



*Figure 2. Historic harvest performance of the Robson Valley TSA.*

## Land Base and Forest Management Changes

Since the previous TSR in 2014, the following changes which affect timber supply have occurred:

- Established First Nation Woodland Licence N3C,
- Established Community Forest Agreement K5Q,
- Established U-7-024 Moose Ungulate Winter Range (Conditional Harvest),
- Established F-7-003 Milk River Fisheries Sensitive Watershed (FSW), and F-7-004 Goat River FSW and Established 7-004 to 7-011 as Goat River Wildlife Habitat Areas which were draft designations in the last TSR,
- Expansion of West Twin Protected Area,
- Simpcw Stewardship Plan,
- R.au.Sh IPCA.

## Modelling Changes

Since the previous TSR, several improvements to analysis methods and assumptions have been incorporated into the timber supply analysis. These include a revised process for identifying the operable land base, adoption of the Provincial Site Productivity Layer (PSPL), development of a riparian layer using the provincial fish habitat model, revised

management assumptions requiring higher minimum harvestable volumes on steeper slopes, and improved growth and yield modelling. Yield projections are now developed at the stand level for individual hectares, replacing the previous approach of grouping stands into broader analysis units.

The current analysis also incorporates spatially explicit natural disturbance modelling. Unlike previous approaches that represented natural disturbance through non-recoverable losses (NRL), this method simulates wildfire as a landscape process and accounts for its effects on forest conditions, future timber availability, forest cover objectives, and interactions with harvesting activities. This approach provides an integrated representation of natural disturbance dynamics and their influence on long-term timber supply.

Collectively, these updates improve the representation of current forest conditions, natural disturbance processes, and forest management practices, resulting in an integrated assessment of timber supply.

## Current Forest Management

The Robson Valley TSA covers approximately 1.46 million hectares. Of this area, approximately 419 000 hectares, or 29%, comprise the **analysis forest land base**[f] (AFLB). The AFLB represents the productive forest area considered in the timber supply analysis and contributes to the achievement of both timber and non-timber resource objectives.

As part of the process used to define the **timber harvesting land base**[g] (THLB), a series of deductions are applied to the AFLB to account for factors that reduce the suitability or availability of productive forest for timber harvesting (Table 1). These deductions reflect ecological, economic, and social considerations. Areas outside the scope of this TSR, including non-productive forest and lands managed under area-based forest licences such as First Nations Woodland Licences, Community Forest Agreements, and Woodlots, are excluded prior to defining the AFLB.

Approximately 48% of the AFLB is unavailable for harvesting because it is located within

[f]**Analysis forest land base (AFLB)**
*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 analysis forest does include federally-protected areas because of their contribution to biodiversity.*

[g]***Timber harvesting land base (THLB)***
*The THLB is an estimate of the land where timber harvesting is considered both acceptable and economically feasible, given the objectives for all relevant forest values, existing timber quality, market values and applicable technology. The THLB is derived from the data, forest management practices, and assumptions described in the data package. It is a theoretical, strategic-level estimate used for timber supply analysis and could include areas that may never be harvested or may exclude areas that will be harvested. THLB is a subset of the AFLB.*

parks, wildlife habitat areas, old-growth and biodiversity reserves, or other areas managed primarily for non-timber values. A further 31% of the AFLB is excluded due to economic or operational management, including riparian reserves, wildlife tree retention requirements, and terrain unsuitable for timber harvesting. The remaining area available for harvesting, referred to as the THLB, is approximately 91 200 hectares, representing about 22% of the AFLB and 6% of the total TSA area.

*Table 1. Derivation of the Robson Valley TSA timber harvesting land base.*

| Land classification | Total area (ha) | Net area removed (ha) | % of total area | % of AFLB |
|---|---|---|---|---|
| **Total area** | **1 458 554** | | **71%** | |
| Land not administered for timber supply purposes | 325 650 | 325 650 | 22.3% | |
| Non-forested and non-productive | 861 797 | 708 246 | 48.6% | |
| Roads | 14 055 | 5 657 | 0.4% | |
| **Analysis forest land base** | **419 001** | | **29.0%** | **100%** |
| Parks and Protected Areas | 386 572 | 110 001 | 7.5% | 26.3% |
| Wildlife Habitat Areas | 792 | 647 | 0.0% | 0.2% |
| Ungulate Winter Range | 152 035 | 39 605 | 2.7% | 9.5% |
| Archaeological sites | 206 | 68 | 0.0% | 0.0% |
| Conservation Lands | 2 024 | 976 | 0.1% | 0.2% |
| Legal Old Growth Management Areas | 29 204 | 14 125 | 1.0% | 3.4% |
| Non-Legal Old Growth Management Areas | 14 586 | 8 030 | 0.6% | 1.9% |
| Old Forest Management | 72 194 | 25 052 | 1.7% | 6.0% |
| Agriculture Development Area | 1 233 | 448 | 0.0% | 0.1% |
| Wildlife Management Area | 319 | 0 | 0.0% | 0.0% |
| Designated Areas | 1 | 1 | 0.0% | 0.0% |
| Recreation Features | 6 322 | 287 | 0.0% | 0.1% |
| Miscellaneous Leases | 339 | 254 | 0.0% | 0.1% |
| **Total gross harvesting land base** | **219 506** | | | |
| Inoperable areas | 873 940 | 65 821 | 4.5% | 15.7% |
| Low Volume Non merchantable timber profiles | 1 022 102 | 33 872 | 2.3% | 8.1% |
| Isolated THLB | 1 230 | 718 | 0.0% | 0.2% |
| Less Accessible Areas | 352 360 | 11 213 | 0.8% | 2.7% |
| Riparian areas | 100 710 | 9 703 | 0.7% | 2.3% |
| Permanent Sample & Research Plots | 385 | 73 | 0.0% | 0.0% |
| Wildlife tree retention areas | 102 419 | 6 889 | 0.5% | 1.6% |
| **Total current reductions** | | **327 783** | | **78.2%** |
| **Timber harvesting land base** | **91 217** | | | **21.8%** |

## Land Base Description

The Engelmann Spruce – Subalpine Fir (ESSF) biogeoclimatic zone is the largest within the AFLB in the Robson Valley TSA, comprising 60% of the area. This is followed by the Sub-Boreal Spruce (SBS) zone (29%) and the Interior Cedar – Hemlock (ICH) zone (12%) (Figure 3). Alpine areas outside of the AFLB include the Boreal Altai Fescue Alpine (BAFA) and Interior Mountain-heather Alpine (IMA) zones.

Within the THLB, biogeoclimatic representation is concentrated in the ICH and mid-elevation ESSF variants. In contrast, the non-THLB is dominated by ESSF, including high-elevation and parkland variants.

In the ESSF zone, spruce is the dominant species (47%), followed by balsam (44%) and pine (7%). In the SBS zone, spruce is also the leading species (47%), followed by pine (19%) and balsam (13%). In the ICH zone, spruce (40%) is the dominant species, followed by hemlock (16%), cedar (13%), Douglas-fir (13%), and balsam (12%).

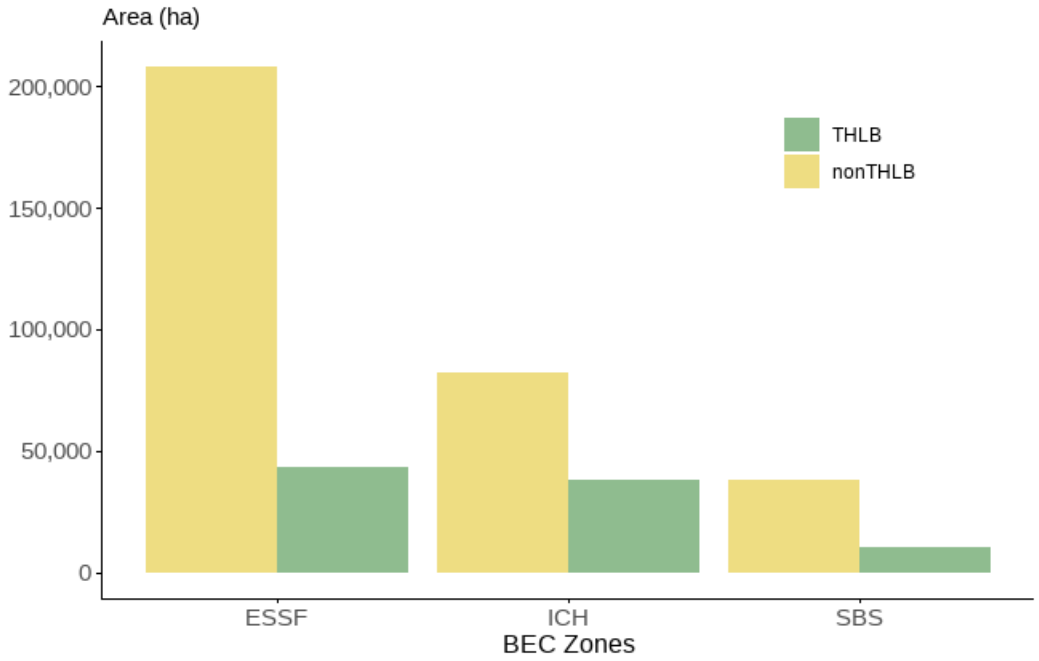
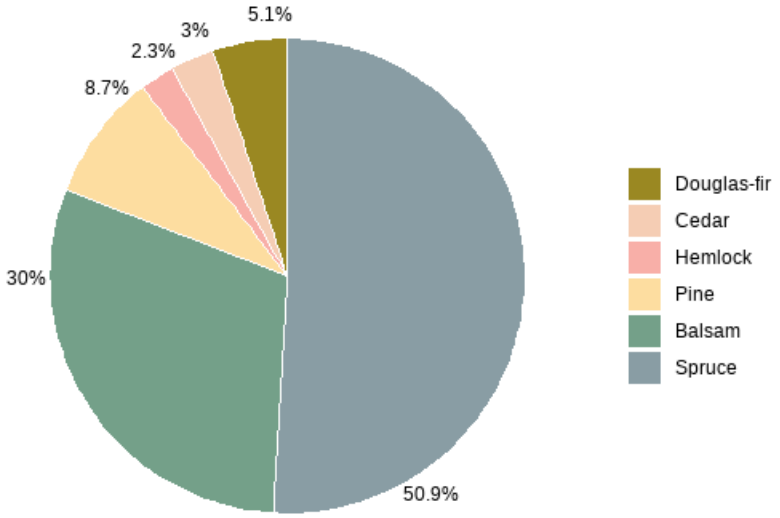



*Figure 3. Biogeoclimatic ecosystem classification zones in Robson Valley TSA*

Within the THLB, the forest is predominantly spruce (51%), followed by balsam (30%), pine (9%), and Douglas-fir (5%). Cedar (3%) and hemlock (2%) comprise smaller proportions of the THLB (Figure 4a).

Within the non-THLB, spruce also dominates (44%), followed by balsam (30%), pine (8%), and hemlock (6%). Cedar (5%) and deciduous species (3%) also occur in the non-THLB (Figure 4b).

a. Species volume profile in the THLB




b. Species volume profile in the non-THLB

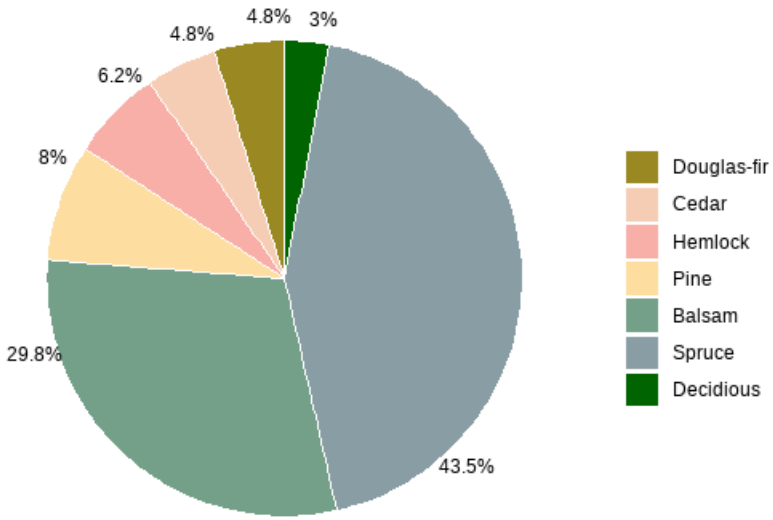



*Figure 4. Total Species Volume for THLB and non-THLB in the AFLB for Robson Valley TSA, the summary is for all species within a stand based on the vegetation resource inventory.*

Figure 5 shows the current age class distribution of stands in the AFLB separated by THLB and non-THLB. The landscape is heavily weighted toward old (non-THLB) forest, with limited younger age classes in the non-THLB and relatively small THLB representation.

THLB area is modest and relatively even across older age classes, with a slight increase in the oldest classes. In many of the younger age classes, THLB contributes a larger share relative to non-THLB.

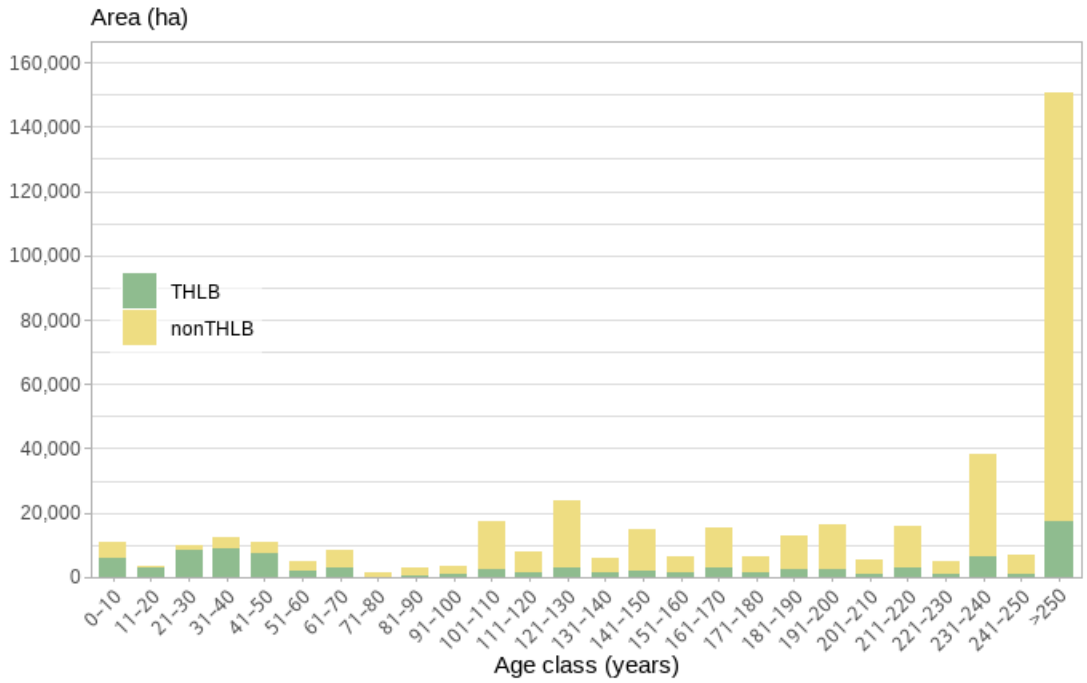



*Figure 5. Age class distribution in the THLB and non-THLB in the Robson Valley TSA.*

Forests within the Robson Valley TSA grow in areas varying in site productivity. Site index (the average height of dominant and co-dominant trees at age 50 years) is the most common measure of site productivity used in BC. As shown in Figure 6, approximately 45% of the area in the AFLB falls within the 15–20 metre site index class (12% in the THLB and 33% in the non-THLB), representing the core of the land base. A further 21% of the AFLB occurs within the 20–25 metre site index class (7% in THLB and 14% in non-THLB). Lower and higher productivity classes each comprise smaller proportions of the AFLB. Consistent with current provincial standard practice, the timber supply analysis uses site index values derived from the PSPL.

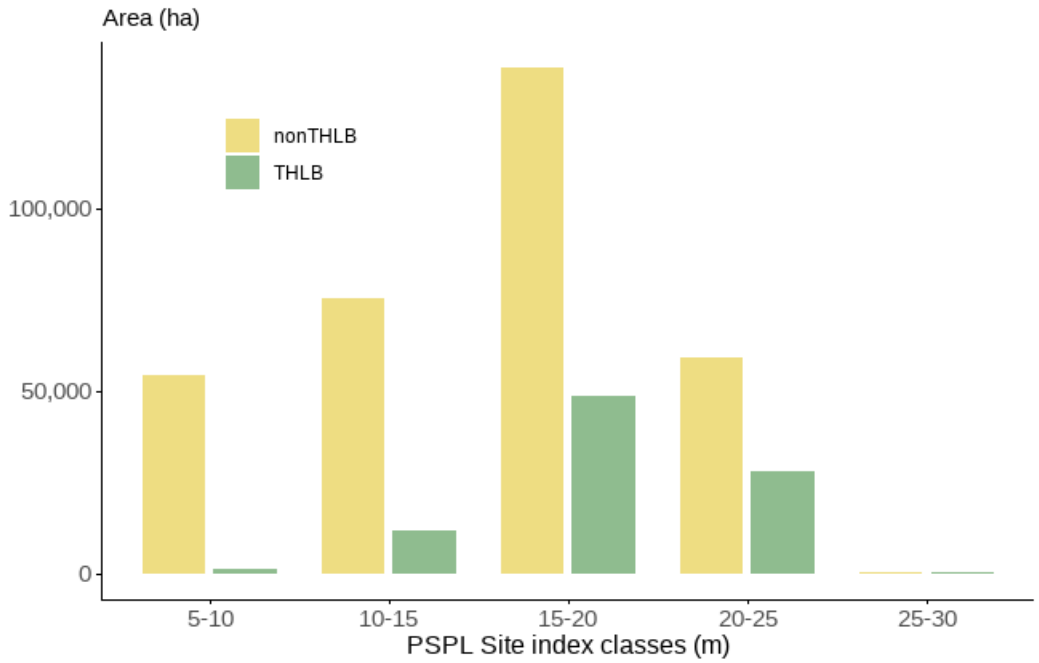



*Figure 6. Site index distribution in the THLB and non-THLB in Robson Valley TSA.*

Slope distribution within the THLB and non-THLB (Figure 7) peaks in the 31–50% classes, with less area at higher slopes. Existing cutblocks (past 25 years) are concentrated in the 20–40% slope range and occurrence rapidly declines above 50%.

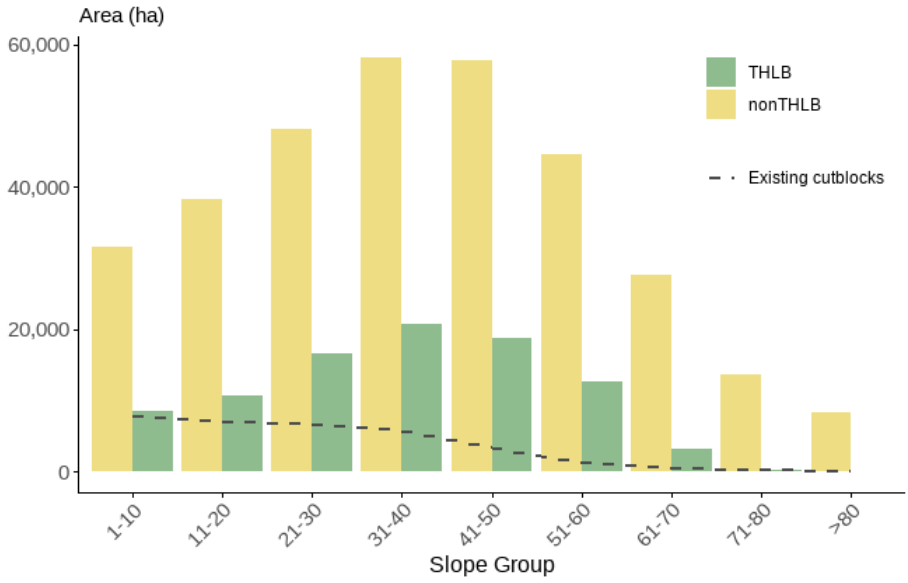



*Figure 7. Slope % distribution in the THLB and non-THLB and harvesting (past 25 years) in Robson Valley TSA.*

## Data Package Updates

Subsequent to the release of the 2025 *Data Package*, updates were made to the land base assumptions used to define the THLB. These revisions include the addition of areas identified for cultural heritage resource protection and the incorporation of the West Twin Protected Area addition. The revised assumptions were factored into the THLB to ensure these values were appropriately represented in the land base.

## Timber Supply Analysis

As part of the TSR, a timber supply analysis is carried out using three categories of information: land base inventory, timber growth and yield, and forest management practices. Using this information, a forest estate model is used to generate a series of timber supply projections that reflect different starting harvest levels, rates of increase or decrease, and potential trade-offs between short- and long-term harvest levels.

From a range of possible projections, one is selected with a harvest flow that avoids both excessive changes from decade to decade (generally less than 10%) and never falls below the sustainable harvest level influenced by the most constrained time periods, while ensuring the long-term productivity of forest lands. This is referred to as the **base case projection** and forms the basis for comparison when assessing the effects of uncertainty of the information modelled in the timber supply analysis. The base case is designed to reflect current management practices.

The base case is not a recommendation for future harvest levels. Rather, it represents one of a number of possible timber supply projections based on a specific set of assumptions and available information. As with all projections, the results depend on the quality of the data and the validity of the assumptions used in the analysis.

Because uncertainty exists in all timber supply analyses, additional projections are completed to evaluate the effects of changes in key assumptions and inputs. These projections, known as **sensitivity analyses**, help identify the factors that have the greatest influence on projected timber supply.

For this current analysis, a forest estate model developed using the Spatially Explicit Landscape Event Simulator (SELES) was used to project future timber availability while accounting for forest growth, harvesting activities, natural disturbance and established land-use objectives. The SELES Spatial Timber Supply Model (STSM) is a forest landscape model built within the SELES framework that supports timber supply analysis by projecting forest conditions and management activities through time. Modelling assumptions are described in the published *Data Package*.

## Base Case Harvest Projection

The analysis begins in 2024 and is modelled in 10-year periods. Based on current forest management practices and inventory information used to prepare the base case, it is possible to harvest 288 000 cubic metres per year for the next decade in the Robson Valley TSA. As shown in Figure 8, after the first decade the timber supply projection drops to 259 000 cubic metres per year (10% decrease) then drops eventually to the even flow (highest constant harvest level that can be maintained over the planning horizon while satisfying all model objectives) of 244 000 cubic metres per year for 8 decades before climbing up to its long-term harvest level of 259 000 cubic metres per year.

Figure 8 also shows the current AAC, and base case harvest projection from the previous TSR in 2014. The difference in harvest projections between the previous TSR and the current analysis is largely due to the exclusion of new area-based tenures and changes in management practices.

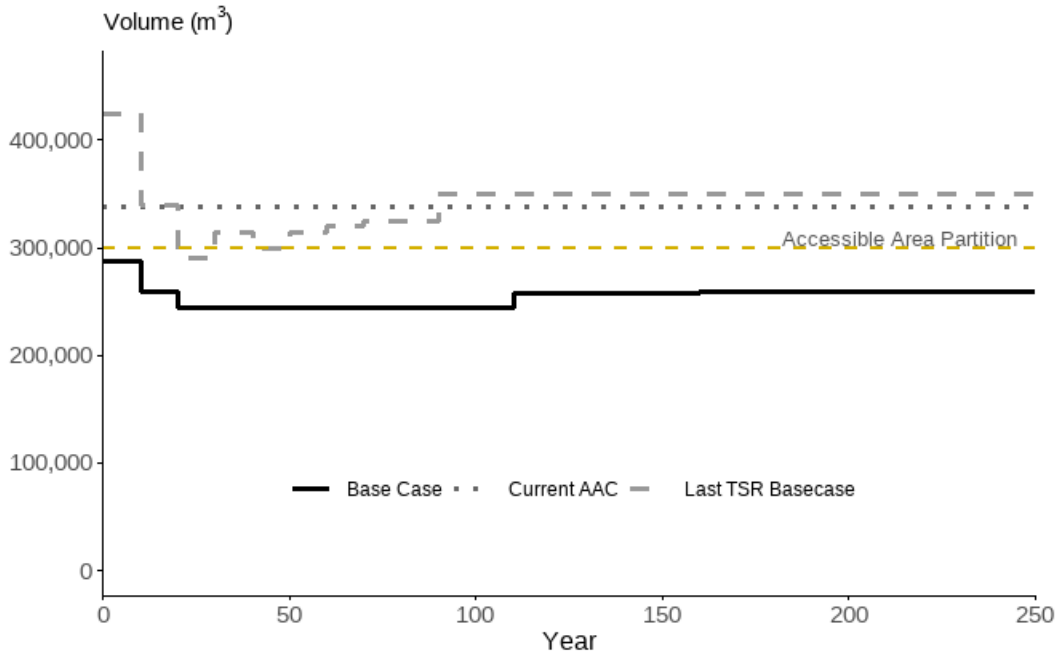



*Figure 8. Current base case timber supply projection vs base case from the previous TSR for the Robson Valley TSA, including current AAC.*

## Base Case Metrics

### Growing Stock

The growing stock is assessed for all harvest projections, ensuring sustainability in meeting the harvest requests. At the start of the projection, total growing stock in the base case is approximately 14 million cubic metres, of which about 11.2 million cubic metres meet minimum merchantability specifications and are available for harvest (Figure 9).

Available growing stock declines initially, reaching a low of roughly 4.5–5 million cubic metres around year 70 and 80, before increasing as the harvest transitions to future managed stands. Over the long term, available growing stock stabilizes at approximately 9.5 million cubic metres, while total growing stock stabilizes at about 14.3 million cubic metres.

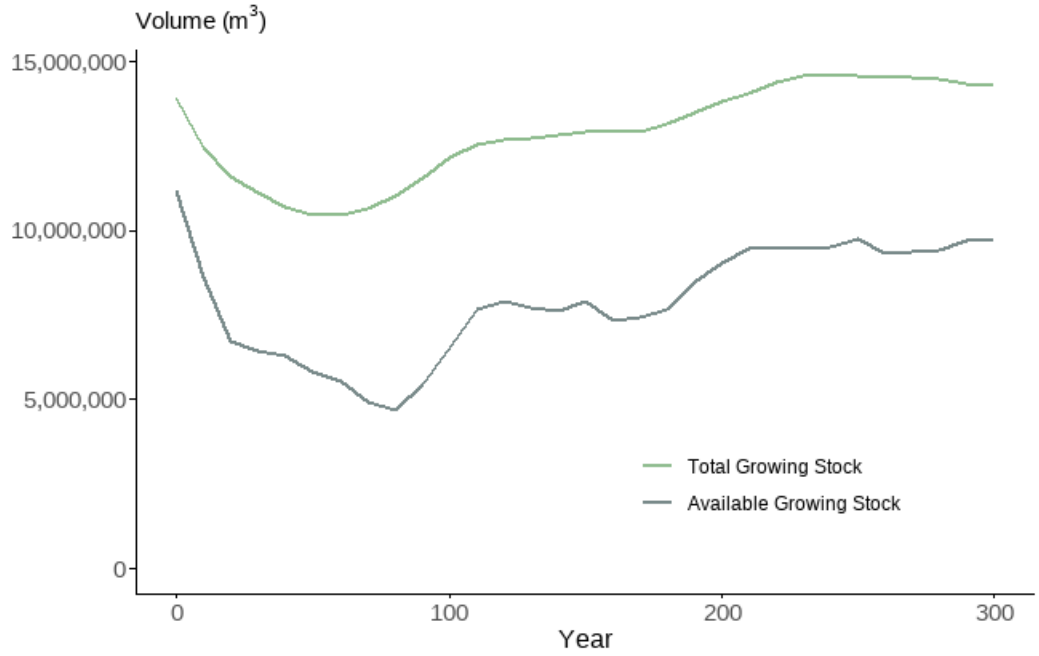



*Figure 9. Total and available growing stock for the base case – Robson Valley TSA*

### Transition to Managed Stands

Figure 10 shows the contribution of natural and managed stands to the harvest overtime. Over the first four decades, the base case harvest is composed almost entirely of existing natural stands. By the fifth decade, existing managed stands begin to contribute the majority of the harvested volume, and by the seventh decade, future managed stands become part of the harvest profile, making up the majority by the eighth decade. Existing natural stands remain available throughout the projection horizon due to management objectives that moderate harvest rates to maintain non-timber values within the TSA. In addition, following wildfire natural disturbance, unsalvaged stands regenerated naturally are classified as natural stands, sustaining their presence within the harvest profile over time.




*Figure 10. Harvest volume profile by natural, managed, and future managed stand types for the base case – Robson Valley TSA.*

### Mean Harvest Volume, Age, and Area

The mean harvest volume per hectare increases gradually over time (Figure 11). Prior to year 40 of the projection, most harvest volume is derived from natural stands, which have relatively low volumes (approximately 269 $m^3$/ha). Mean harvest volume per hectare increases between years 40 and 70 as existing managed stands (approximately 330 $m^3$/ha) begin to contribute more substantially to the harvest mix. As future managed stands enter the harvest profile, mean harvest volume exceeds 350 cubic metres per ha. These higher stand volumes reflect the expected outcomes of silvicultural practices, including prompt regeneration, improved site occupancy (that is, reduced non-forested gaps), and the use of genetically improved growing stock.

In contrast, the mean harvest age declines over the first nine decades of the projection (Figure 11). The average age of harvested stands decreases from 272 years at the start of the projection to 82 years by year 90 of the projection. Thereafter, harvest age increases modestly and stabilizes at approximately 105 years. The overall mean harvest age across the full planning horizon is 119 years.




*Figure 11. Mean volume per hectare and mean harvest age for the base case – Robson Valley TSA.*

The mean annual area harvested under the base case at the start of the projection is 1079 hectares per year. From the start of the projection to the period where the minimum harvest area is reached in year 80 (see Figure 12) the harvested mean is 830 hectares per year. From year 80 to the end of the projection, the mean harvested area declines to 684 hectares per year. This reduction in harvested area corresponds with the declining harvest and concurrent increases in volume per hectare.

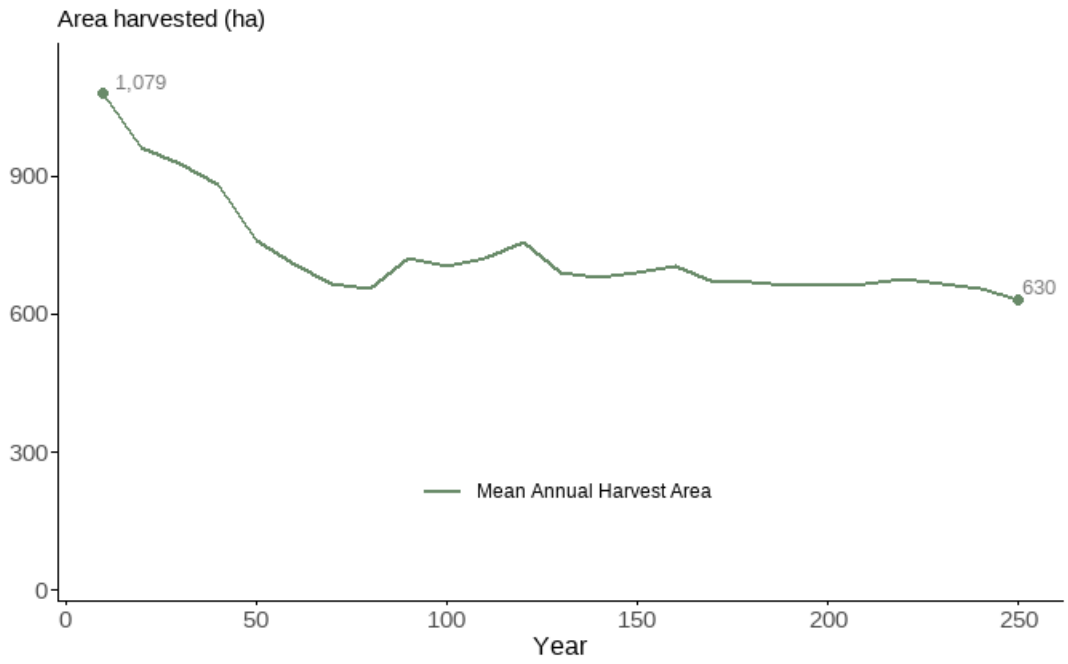



*Figure 12. Area harvested overtime for the base case – Robson Valley TSA*

These metrics show a transition from a harvest profile dominated by older natural stands to one increasingly supported by younger managed stands while maintaining a stable long-term timber supply.

## Alternative Harvest Flow

As described under ***Timber supply analysis***, the base case is only one of many harvest projections that can be obtained with the same set of data and management assumptions. Several alternative harvest projections can be made if the harvest flow over time is modified using a different starting harvest level and duration. These alternative harvest flow projections all meet the same base case objectives specified in the *Data Package*.

The Alterative 1 (BaseCase95) scenario is designed as a robustness-oriented alternative to the base case, motivated by the observed sensitivity of the base case harvest level to spatial sequencing of cutblocks and associated road development. Analysis indicates that the base case short-term harvest level provides limited flexibility and may be difficult to consistently achieve under varying spatial configurations.

To address this limitation, the BaseCase95 scenario reduces the short-term harvest to a level that can be supported under a broader range of spatial outcomes. The initial harvest level is set at 95% of the base case, beginning at 273 000 cubic metres per year in the first decade. This is followed by a two-step reduction to 246 000 cubic metres per year early in the planning horizon. After this adjustment period, the harvest flow transitions to the base case trajectory, as shown in Figure 13.

Alternative 2 (BaseCaseST) scenario is designed to delay the initial decline observed in the base case by maintaining a harvest level for an extended short-term before transitioning to the mid- and long-term flow, as shown in Figure 13. This scenario is intended to assess both the magnitude and duration of short-term harvest that can be supported without compromising long-term sustainability.

Under this approach, the initial harvest level is set to the maximum feasible level permitted by model objectives that can be held constant for three decades (261 000 cubic metres per year). Following this holding period, the harvest flow transitions back to the base case trajectory.

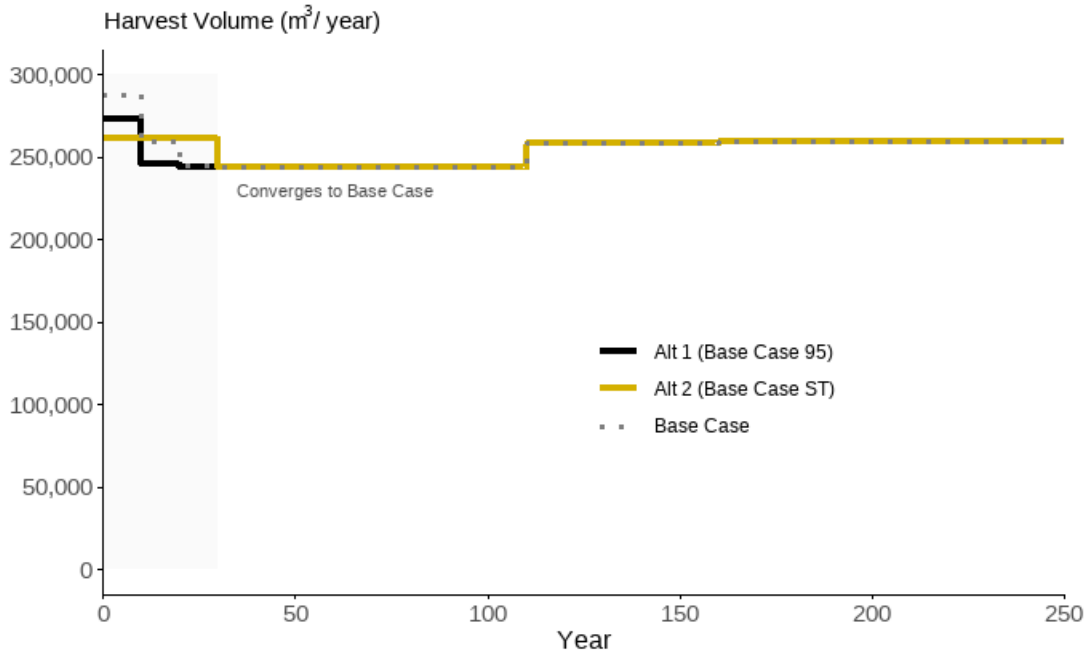



*Figure 13. Alternative harvest flow projections - Robson Valley TSA.*

## Sensitivity Analyses

The base case projection uses a specific set of available data and forest management assumptions that are intended to reflect current forest composition and growth, legally established management objectives, and management practices. The factors used as inputs to timber supply analysis have differing levels of uncertainty associated with them, due in part to variation in physical, biological and social conditions. Therefore, sensitivity analyses are used to examine the potential impacts of different uncertainties about, or changes to, resource information and management practices.

Table 2 summarizes key sensitivity analyses for the Robson Valley TSA TSR that require additional discussion while Table 3 summarizes TSR standard sensitivity analyses to assess implications of potential known uncertainties.

*Table 2. Select sensitivity analyses for the Robson Valley TSA.*

| Sensitivity Analysis | Assumption Modified |
|---|---|
| Managed Stand Priority | Harvest managed stands as a priority over natural stands |
| Natural Disturbance | Wildfire Natural Disturbance<br>• Reduced Fire Return Interval based on:<br>  ○ Last 10 years<br>  ○ Climate Change Model<br>• No Wildfire |
| Forest Health | Forest health information from pilot project |

### Managed Stand Priority

A harvest priority was applied to managed stands to influence harvest sequencing. The priority applies to both existing managed stands and future managed stands. Although non-managed stands remain available to meet the harvest request, when necessary, the priority alters the timing of stand selection across the land base.

Under the managed stand priority, managed stands are harvested first using the same oldest-first harvest order applied in the base case. Any remaining harvest requirement is then allocated to non-managed stands using a relative volume culmination mean annual increment (CMAI) priority (decreasing order of stand volume divided by volume at culmination age). The harvest target was held constant at the base case harvest request.

Prioritizing managed stands reduces the contribution of non-managed stands to the harvest profile during the early and mid-term planning horizon (Figure 14). However, the model is unable to consistently achieve the requested harvest level. Harvest volume falls below target in years 80 and 90.

While the priority demonstrates the implications of preferentially harvesting managed stands, including the deferral of non-managed stand harvest to later periods (Figure 15), the resulting harvest flow is not sustainable under the base case harvest request.

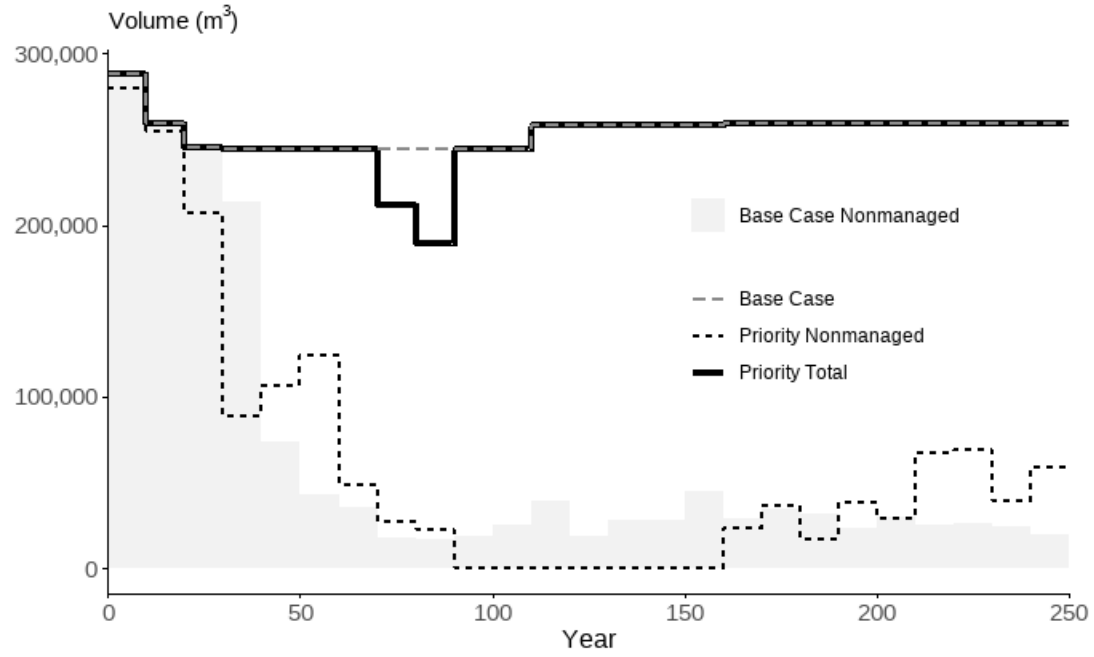



*Figure 14. Total harvest volume and non-managed harvest contribution under the Managed Stand Priority compared with the base case.*

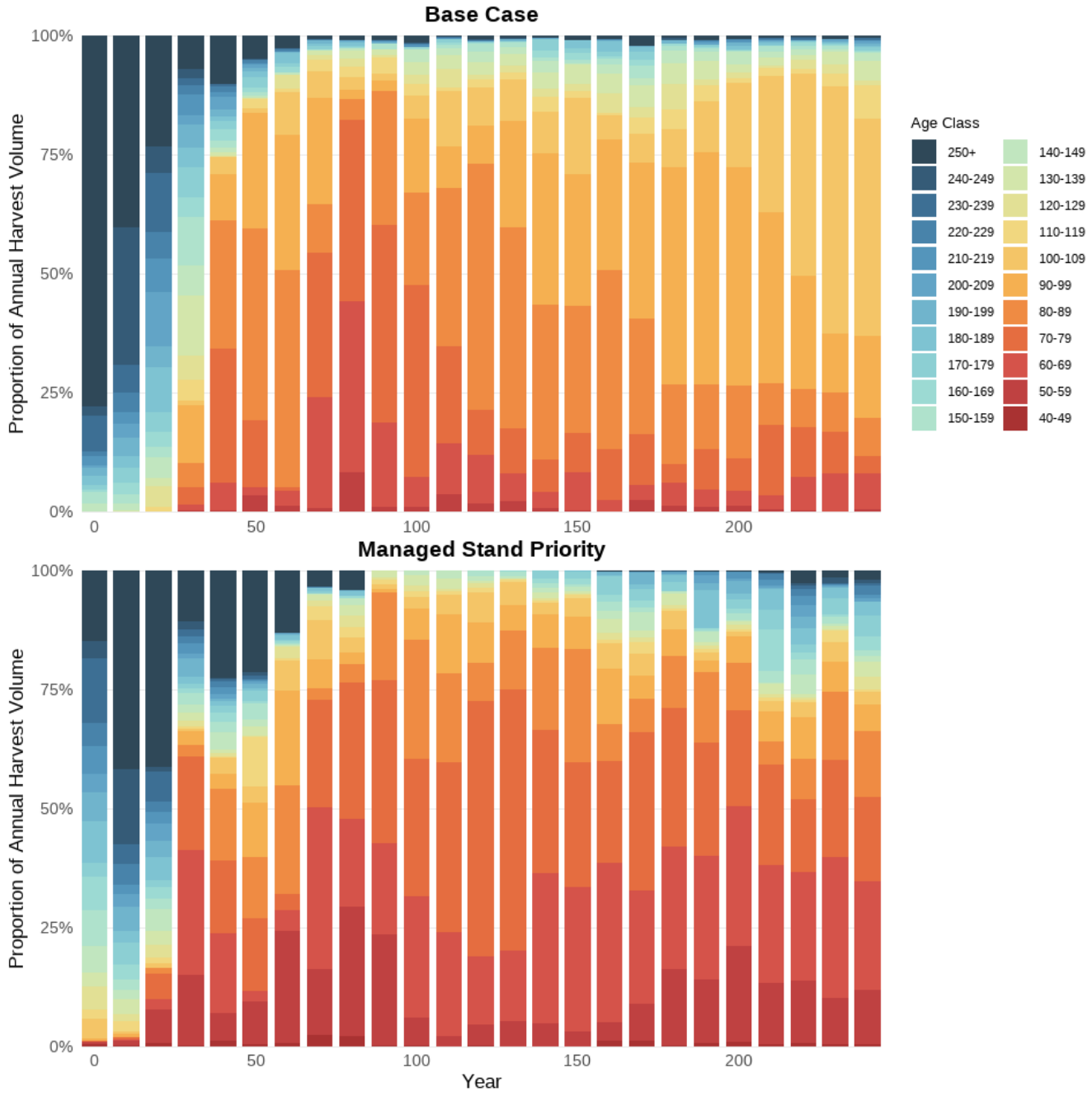



*Figure 15. Proportion of annual harvest volume by age class under the Managed Stand Priority compared with the base case.*

### Natural Disturbance: Wildfire

Historically, wildfire has affected a relatively small proportion of the Robson Valley TSA compared with many other TSAs in BC, reflecting the predominance of moist, high-elevation ecosystems that are generally less fire-prone than many interior BC forest types.

However, climate change projections for the Robson Valley TSA indicate conditions that

are conducive to increased wildfire occurrence and severity. Future climates are expected to be warmer, with greater moisture stress during the growing season, reduced snow accumulation, and a shorter snow season. These changes may reduce soil moisture availability, increase drought stress on forests, and contribute to drier fuels over longer periods of the year. As a result, future climate conditions may increase the likelihood and potential impact of wildfire across the TSA.

Natural disturbance modelling in the base case was parameterized using the full available fire history to estimate a long-term average disturbance rate and pattern, using a constant representation of wildfire losses through time. Several sensitivity analyses were completed to address uncertainty in the natural disturbance modelling (Figure 16):

1. Wildfire parameters derived from only the most recent 10 years of fire history and applied deterministically (Wildfire 10).
2. Climate change scenario informed fire return interval (SSP2-4.5).
3. Spatially explicit wildfire was not modeled (No Wildfire).

Using only the most recent 10 years of fire history to parameterize natural disturbance resulted in nearly double the disturbed area relative to the base case, reducing short-term timber supply by 19.8%. The harvest flow declined rapidly and stabilized at a long-term level that was 21.6% lower than the base case.

The climate change sensitivity is informed by analysis completed by the Forest Analysis and Inventory Branch relating annual area burned to projected climate conditions. Future wildfire projections were based on climate projections from multiple Global Climate Models (GCM) under Shared Socioeconomic Pathway (SSP) scenarios. SSP2-4.5 represents a moderate greenhouse gas emissions trajectory. The analysis projected increased climate moisture deficits and corresponding increases in annual area burned, leading to reductions in estimated fire return interval. The fire return interval is based on projected average annual area burned during 2081-2100 and should be viewed as scenario-based estimates that reflect the potential influence of increased climate moisture deficit on future wildfire disturbance regimes. The SSP2 run used a fire return interval of 153 years, compared to 716 years in the base case. This resulted in decreases of 54.9% in the short-term, 68.4% in the mid-term, and 85.7% in the long-term timber supply. All other modelling assumptions were maintained as in the base case.

A separate sensitivity analysis examined the effect of removing wildfire from the model all together while keeping all other assumptions unchanged. Spatially explicit natural disturbance modelling was excluded from the base case with all other assumptions remaining, resulting in a 9% increase in the short-term and a 30% increase in long-term timber supply.

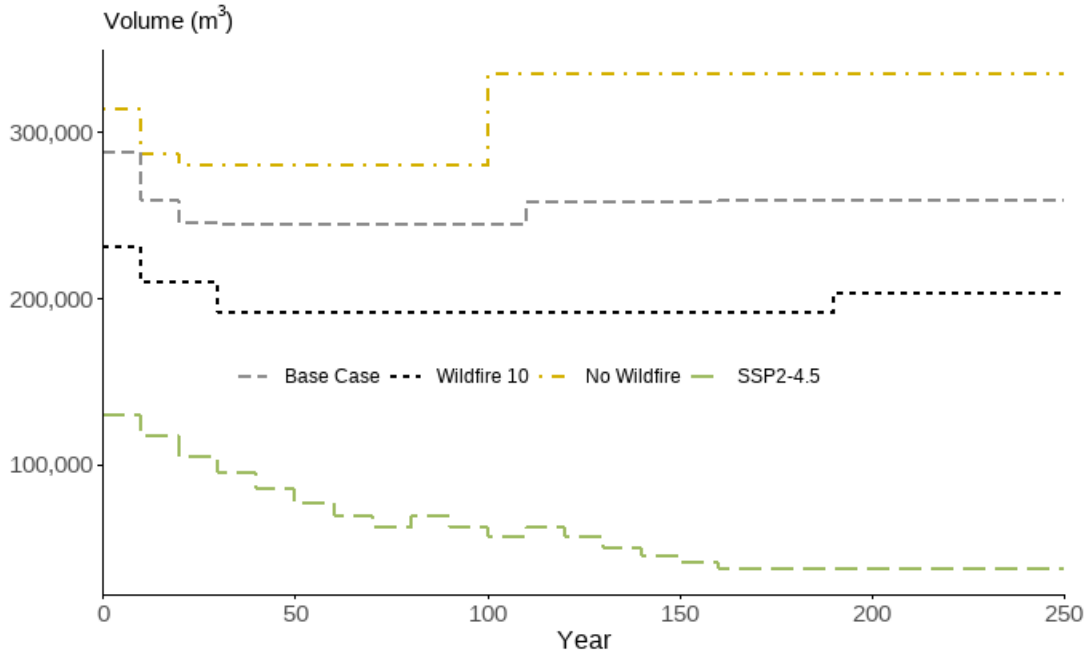



*Figure 16. Harvest Flow under Alternative Wildfire Disturbance Assumptions and Climate Change Scenarios.*

Because future wildfire activity and climate conditions are inherently uncertain, and because the model relies on assumptions used to represent these processes, the sensitivity analyses were conducted to explore this uncertainty by testing a range of climate and disturbance assumptions and to better understand the potential range of future timber supply outcomes.

These results are intended to illustrate the potential effects of wildfire activity under a range of climate change scenarios and modelling assumptions. They should not be interpreted as predictions of future timber supply. Rather, they provide an indication of the potential magnitude of impacts and help identify the risks that climate change and associated increases in wildfire disturbance may pose to future timber supply in the Robson Valley TSA.

### Forest Health

The Omineca Forest Health Monitoring Pilot (Omineca FHMP)[1] arose as a product of a strong working relationship between Simpcw First Nation, district and regional staff, and has been supported by many others. Together the collaborators share an interest in better understanding the current condition of the managed stands and forest values in the Robson Valley TSA, on Simpcwúl̓ecw (Simpcw Territory).

The project was initiated in 2023 in the Interior Cedar – Hemlock moist mild (ICHmm)

[1] Modified from the Stand Health and Growth Monitoring Pilot protocol developed by Alex Woods.

biogeoclimatic subzone. A total of 31 managed stands aged 20-40 years old were sampled of which 26 stands were sampled by Simpcw Resource Group in 2023, and an additional 5 stands were sampled by project members from Prince George Natural Resource District and Omineca Region in 2024. The surveyors collected data on forest health, tree growth, and plant and animal values identified by Simpcw using a standardized protocol[2].

The intent of the Omineca FHMP is to integrate multiple data analyses related to forest health, stand growth and condition, the cultural plant and animal values identified by the Simpcw, and collaborative interpretation of the results to answer the following questions:

a) Are the cultural plants and animal values identified by Simpcw present where they are expected to be? What are the managed stand attributes associated with presence or absence of the cultural values?

b) Which forest health disturbance agents are present and how are they influencing managed stand dynamics? Are the identified forest health disturbance agents predictable (e.g., known with documented occurrence) or new (e.g., emerging due to climate change or abiotic stresses)?

c) How does the projected volume of the assessed stands (Omineca FHMP field data) compare to the current standardized managed stand volume projections?

d) What is the estimated volume loss due to stem defects when local industry utilization specifications (log length) are considered?

e) What do the findings say about ecosystem values, forest health and whether we are creating conditions that reflect the desired future forest?

The Omineca FHMP data, analyses, results and interpretation with Simpcw will be considered and used to inform the Robson Valley TSR.

[2] For more information see pages 85-86 of the Robson Valley TSA TSR Data Package (September 18, 2025).

### Summary of Sensitivity Analyses

Several additional sensitivity analyses were conducted to test the effects on timber supply of uncertainty in data and modelling of management practices in the TSA. Shown in Table 3 below is the percent change from the base case at three representative decades in the harvest flow: the initial level (year 0), the mid-term plateau (year 50), and the long-term level (year 250). These decades align with the consistent structure observed across the sensitivity analyses: an initial harvest level, a step-down to a mid-term plateau, and a subsequent transition to a stable long-term condition. Together, these reference points provide a consistent basis for comparing how each sensitivity analysis influences harvest capacity.

*Table 3. Additional sensitivity analyses completed for the Robson Valley TSA*

| What | Change | % impact | | |
|---|---|---|---|---|
| | | Short | Mid | Long |
| Managed stands 10%- | Managed stand yield decrease 10% | 1% | -7.4% | -12.4% |
| Managed stand 10%+ | Managed stand yield increase 10% | 6.2% | 5.3% | 11.6% |
| Natural stand 10%- | Natural stand yield decrease 10% | -11.8% | -9.8% | -5.8% |
| Natural stand 10%+ | Natural stand yield increase 10% | 15.3% | 7.8% | 2.3% |
| Minimum harvestable age 10 years - | Minimum harvestable age decrease 10 years | 17.4% | 2% | - |
| Minimum harvestable age 10 years + | Minimum harvestable age increase 10 years | -4.2% | -6.6% | 2.7% |
| Minimum harvestable age set at 80 years | Minimum harvestable age set to 80 years | -2.1% | -1.6% | - |
| Minimum harvestable volume 20 $m^3$ decrease | Minimum harvestable volume threshold decrease 20$m^3$ | 0.7% | 5.3% | 6.6% |
| Minimum harvestable volume 20 $m^3$ increase | Minimum harvestable volume threshold increase 20$m^3$ | -9.4% | -4.1% | -6.2% |
| THLB area 10%- | The area for the THLB decrease for each netdown factor by 10% | -10.4% | -9.8% | -10.4% |
| THLB area 10%+ | The area for the THLB increase for each netdown factor by 10% up to a maximum of 100. | 4.2% | 8.6% | 7.7% |
| Harvest order | Relative volume CMAI | - | 2.9% | 2.3% |
| Harvest order | Relative oldest first | 0.7% | 2% | - |
| Harvest order | Highest volume first | - | -4.1% | -7.7% |
| Visually disturbed area changed by 5%- | The allowable proportion of visually disturbed area (height below) was decreased by 5%, increasing the stringency of visual constraints. | -6.2% | -4.9% | -3.1% |
| Visually disturbed area changed by 5%+ | The allowable proportion of visually disturbed area (height below) was increased by 5%, reducing the stringency of visual constraints. | 5.9% | 2.9% | 2.7% |
| Road density | Grizzly bear CEF thresholds and road deactivation | - | - | - |
| Watershed assessment | Apply ECA thresholds to all watersheds | -4.9% | -4.9% | -1.9% |

| | | | | |
|---|---|---|---|---|
| Block age spread / block size | Cutblock spread age decrease creating smaller blocks | 4.9% | - | 0.4% |
| Partial harvest | Multi-pass harvest (5) | -11.5% | -4.9% | +1.5% |
| | Multi-pass harvest (3) | -2.8% | -0.8% | -1.9% |
| Commercial thinning | Apply commercial thinning | 3.1% | - | - |

### Yield Uncertainty

Yield assumptions are a source of uncertainty in timber supply analysis as they influence the amount of volume projected to be available from both existing and future stands based on inventory, field information, and growth and yield assumptions. The Young Stand Monitoring (YSM) program provides an independent assessment of growth and yield performance by comparing observed stand measurements with projected stand development. In the Robson Valley TSA, YSM results generally indicate that current yield assumptions are conservative, although uncertainty remains due to limited sample sizes. To evaluate the implications of this uncertainty, sensitivity analyses were conducted by adjusting managed- and natural-stand yields by ±10%. Results indicate that managed-stand yield assumptions primarily influence mid- and long-term timber supply (±12%), whereas natural-stand yield assumptions have the greatest effect on short-term timber supply (approximately +15% and -12%), with declining influence over time.

### Minimum Harvest Criteria

Minimum harvest criteria define the conditions under which a stand is considered eligible for harvest within the timber supply model. These criteria are based on thresholds for minimum harvestable age and minimum harvestable volume, which together represent the lower bounds of operability and merchantability.

Minimum harvestable age is defined as the age at which a stand reaches 95% of CMAI. Minimum harvestable volume thresholds are stratified by slope, with higher volume requirements applied to stands harvested on steeper terrain. In the base case, the minimum harvestable volume is 260 cubic metres per hectare for stands on slopes greater than 49% and 174 cubic metres per hectare for stands on slopes less than or equal to 49%. These criteria establish the timing and availability of harvestable stands in the model and, as such, sensitivity analyses were conducted to evaluate the impact of changes to minimum harvestable age, and minimum harvestable volume on projected timber supply.

Minimum harvestable age primarily affects short-term timber supply by influencing the timing of managed stand availability. Reducing the minimum harvestable age allows stands to become available earlier and increases short-term timber supply by approximately 17%.

Minimum harvestable volume thresholds affects timber supply across all time periods as a result of the changes in size of the THLB, with increases in the threshold resulting in notable reductions in timber supply, particularly in the short-term (-9.4%), while decreases in the threshold result in moderate increases, primarily in the mid- and long-term (5.3% and 6.6%), with an increase in THLB by 5.1%.

### THLB Size Change

The THLB sensitivity analyses was conducted by adjusting THLB inclusion factor by ±10% to test the influence of uncertainty in THLB netdowns and the effective size of the harvestable land base on timber supply.

Overall, the results indicate that timber supply is sensitive to changes in the THLB. Reductions in the THLB have a greater impact on harvest levels than equivalent increases. It should be noted, however, that the +10% scenario does not represent a full 10% increase in THLB area across all stands because THLB inclusion factors are constrained to a maximum value of 100%, consequently, the effective increase in THLB area is less than the 10%.

The THLB -10% sensitivity analysis produced a consistent reduction in harvest levels throughout the planning horizon, with harvests declining by 10.4% in the short-term, 9.8% in the mid-term, and 10.4% in the long-term relative to the base case, with the timber supply changes approximately in proportion to the change in THLB area. In contrast, the THLB +10% sensitivity had a more limited effect in the short-term (+4.2%) but a greater influence in the mid-term (+8.6%) and long-term (+7.7%).

### Harvest Order Sequence

Harvest ordering had a slight to modest influence on timber supply outcomes, generally maintaining similar short-term harvest levels across scenarios. The productivity-weighted approach (Relative Volume CMAI) increased the mid- and long-term harvest levels by 2.9% and 2.3%, respectively. Relative Oldest First produced results similar to the base case, whereas Highest Volume First reduced harvest levels by 4.1% in the mid-term and 7.7% in the long-term. Overall, harvest sequencing assumptions had a relatively minor effect on short-term timber supply compared to other sensitivities examined in this analysis.

### Visual Management

Sensitivity analysis was conducted to evaluate the influence of uncertainty in forest cover modelling assumptions for visually sensitive areas on timber supply outcomes. Two sensitivity analyses were conducted relative to the base case by increasing and decreasing the allowable proportion of visually altered area within each polygon by 5%. Altered area is defined as stands below the visually effective green-up (VEG) height, and the allowable percentage represents the maximum proportion of area permitted to remain below this threshold at a given time step. All other modelling assumptions were consistent with the base case.

Results show that visual requirements exert a stronger influence on harvest levels in the short to mid-term. Reducing the allowable alteration (−5%) results in lower initial harvest levels which continue throughout the planning horizon, while increasing the allowable alteration (+5%) provides greater flexibility and supports higher initial harvest levels.

Overall, the results indicate that uncertainty in visual forest cover requirements primarily affects short-to-mid-term harvest flow but has limited influence on the long-term harvest level.

### Wildlife and Aquatic Values

#### Grizzly Bear

Grizzly bears are identified as a provincial priority value under the Cumulative Effects Framework policy. Road density is a key indicator used to represent human access, habitat fragmentation, and grizzly bear mortality risk. Using current road density values for each landscape unit from the Cumulative Effects Framework (CEF) grizzly bear protocol, several analyses were completed using the protocol's landscape unit road density classes, which classify landscape units as roadless, low (>0-0.3 km/km$^2$), moderate (0.31-0.6 km/km$^2$), high (0.61-0.75 km/km$^2$), or very high (>0.75 km/km$^2$) road density. In the timber supply model, road density is represented as a dynamic, spatially explicit surface that is recalculated through time as roads are constructed, deactivated, and reactivated.

Results indicate that the base case harvest level can be achieved while maintaining the current CEF road density classes within each landscape unit when road deactivation is assumed after 10 years and a 10% variance from current conditions is permitted for localized areas of higher road density. Without this variance, the base case harvest level could not be maintained. This sensitivity analysis did not directly assess or model grizzly bear habitat; rather, it was limited to evaluating whether current CEF landscape unit road density classes could be maintained while achieving the base case harvest level under the specified road management assumptions within the timber supply model.

#### Watershed Sensitivity

An equivalent clearcut area (ECA) is a threshold for the amount of disturbance in a watershed applied to help mitigate hydrological response and manage risk and timing of peak follows in the spring

For this sensitivity analysis, the Freshwater Atlas Assessment Watersheds are used as the assessment unit for the ECA calculation, following the same approach used in the timber supply model for the existing Fisheries Sensitive Watersheds (FSW) in the Robson Valley TSA. The existing FSW objectives from the base case remained in place and an ECA limit of 25% was applied across the land base. Applying ECA limits to all watersheds reduced harvest levels relative to the base case throughout the planning horizon. Harvest levels declined 4.9% in the short and mid-term, and 1.9% in the long-term. This sensitivity analysis did not modify FSW designations or establish new watershed objectives; rather, it was a modelling exercise to evaluate the potential timber supply implications of a broader, hypothetical application of ECA and should not be interpreted as a recommendation for changes to watershed designations or management objectives.

### Partial Harvest

Partial harvesting modelling was evaluated using an alternative modelling approach designed to represent repeated partial harvesting entries over time. Two partial harvest systems were examined: a five-pass system with 20% removal every 20 years and a three-pass system with 33% removal every 20 years. Harvesting was preferentially directed to stands eligible for repeated partial harvest entries.

These results are intended to demonstrate the relative effects of modelling alternative partial harvest systems and should not be interpreted as projections of future harvesting practices or timber supply. In addition, there is currently limited long-term demonstrated performance information available to support assumptions regarding the spatial application and frequency of partial harvesting in the Robson Valley TSA.

Relative to the base case, partial harvest resulted in lower projected timber supply over the short and mid-term planning horizons. The three-pass partial harvest reduced harvest levels by 2.8%, 0.8%, and 1.9% in the short-, mid-, and long-term periods, respectively, while the five pass partial harvest scenario reduced harvest levels by 11.5% and 4.9% in the short- and mid-term and increased harvest levels by 1.5% in the long-term.

As operational experience and supporting data expand, future analyses and model enhancements are expected to provide a more realistic and flexible representation of partial harvest management.

### Commercial Thinning

The commercial thinning analysis maintained all base case assumptions, with modifications to harvest preference and harvest eligibility criteria to represent a commercial thinning regime. Commercial thinning was modelled as a partial-harvest treatment in younger managed stands. To facilitate treatment eligibility, target stands were assigned a minimum harvest age of 50 years and a minimum harvest volume threshold of 100 cubic metres per ha. An initial model run was completed to identify all stands currently available for treatment during the first decade, and these stands were subsequently used to develop a spatial harvest-priority layer. The commercial thinning sensitivity analysis then directed treatments to these priority areas through a two-entry harvest sequence, with approximately 30% of the stand volume removed during the initial entry and the remaining merchantable volume harvested after 30 years. Following the initial commercial thinning entry, stands transitioned to their future managed stand yield projection. Only the cohort of stands identified during the first decade was eligible for treatment; no additional stands entered the commercial thinning regime during the projection period. In the fifth decade the volume contributing from the treatment stands contributes 22% to the harvest.

Relative to the base case, the commercial thinning sensitivity analysis increased short-term harvest levels by 3.1%. Thereafter, projected harvest levels followed the base case throughout the mid-and long-term, as the priority is set for the first 5 decades only. Available growing stock and the area meeting minimum harvest criteria increased initially, reflecting the changes in the treatment stands. As post-thinning growth responses were not explicitly modelled, the analysis represents only a shift in harvest timing and should be interpreted accordingly.

## Conclusion

The base case projection itself is not an AAC recommendation, but rather one source of

information that will be considered by the chief forester.

The base case projects an initial harvest level of 288 000 cubic metres per year that can be maintained for 10 years. It steps down in the second decade to 259 000 cubic metres per year and then decreases to the even flow harvest level of 244 000 cubic metres per year for 8 decades. The harvest level increases to 259 000 cubic metres per year for the long-term.

Sensitivity analyses indicate that timber supply is most responsive to assumptions affecting the availability of the harvestable land base (size of THLB) and future wildfire natural disturbance levels. The largest reductions in timber supply were associated with the climate change wildfire scenarios, while changes to THLB size, minimum harvest criteria, yield assumptions, and visual management also strongly influenced projected harvest levels. In contrast, harvest sequencing assumptions generally had a relatively minor effect on projected timber supply.

Overall, the sensitivity analyses demonstrate that a range of future timber supply outcomes is possible depending on future management objectives, land base assumptions, forest productivity, and natural disturbance patterns. These analyses help identify the key sources of uncertainty within the TSR and provide important context for interpreting the base case projection and supporting the chief forester's AAC determination.

## Your Input is Needed

Public input is an important part of establishing the AAC. The information and comments received from this review will be provided to the chief forester prior to determination of the new AAC. Feedback is welcomed on any aspect of this *Discussion Paper* or any other issue related to the TSR for the Robson Valley TSA. Ministry staff would be pleased to answer questions to help you prepare your response. Please send your comments to the resource district at the address below.

Your comments will be accepted until January 29, 2027.

You may identify yourself with 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:

Tammy Baerg, Stewardship Officer
Prince George Natural Resource District
Ministry of Forests
2000 South Ospika Boulevard
Prince George, British Columbia.

V2N 4W5

Electronic mail: Forests.PrinceGeorgeDistrictOffice@gov.bc.ca

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

To obtain further information about the AAC determination process, the TSR and past Robson Valley TSA TSR documents visit the BC government website at:

https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/timber-supply-review-and-allowable-annual-cut