

Merritt Timber Supply Area (TSA)
AAC Adjustment
Technical Assessment

April 2026

Forest Analysis and Inventory Branch
Ministry of Forests



Table of Contents

Executive Summary.....	2
Objective of this document	3
AAC Adjustment Process	5
Statutory Framework	6
Acknowledgement	6
Description of the Merritt Timber Supply Area	7
History of the AAC	7
Role and limitations of Technical Information Used	8
Factors Covered in Previous Timber Supply Review	8
Implementation Instruction and Subsequent Performance.....	12
Harvest Performance	14
Factor Overview Since Previous TSR.....	15
Wildfire Impact.....	15
Indigenous Forestry Standards.....	16
Operational Challenges	16
Technical Advisory Panel – Priority Old Growth Deferral Areas.....	17
First Nations Cultural Use, Sensitive Sites, and No Harvest Area	17
Analytical Methodology	18
Proxy Netdown	21
Riparian Management Areas & In-block Retention.....	21
Analysis Results	25
Timber Harvesting Land Base Impacts	25
Wildfire Inventory Impacts	26
Discussion.....	28
Joint Recommendations.....	30
Conclusion.....	33
Appendix A: Glossary of Technical Terminology	34

List of Figures

Figure 1.	Map of the Merritt TSA with wildfires from 2015-2024 displayed by burn severity rating.....	15
Figure 2.	Analytical methodology flow infographic	19
Figure 3.	Netdown process diagram to explain the Proxy Netdown process.....	23
Figure 4.	Age class distribution of AFLB/THLB for the 2015 and 2025 VRI datasets	26
Figure 5.	Species distribution of the two resultants by volume for all ages versus mature (> 60 years old).....	27

List of Tables

Table 1.	Summary of factors as required by Section 8 of the Forest Act.	9
Table 2.	Summary of tracked harvest performance metrics provided by local operators.....	13
Table 3.	Annual harvest by year and the amount below or over the AAC	14
Table 4.	Analysis data inputs and sources	19
Table 5.	Buffer width comparison 2016 analysis to 2025 analysis	24
Table 6.	Vector analysis results for timber harvesting land base (THLB) area impact by factor. Priority was given to layers from top to bottom when calculating 'net'. E.g. Wildfire was excluded from steep DBF total, then steep DBF & wildfire from steep WISA habitat.....	25
Table 7.	Proxy Netdown results for increased riparian and retention levels based on Indigenous forestry standards.....	26
Table 8.	THLB ratio formulated AAC impact for wildfire and operational changes/challenges factors.....	29
Table 9.	THLB ratio formulated AAC impact for no harvest and TAP factors	29
Table 10.	THLB Ratio formulated AAC impact for Indigenous Forestry Standards factors.....	30
Table 11.	Joint recommendation section 1.....	31
Table 12.	Joint recommendation section 2.....	32
Table 13.	Joint recommendation section 3.....	32
Table 14.	Joint recommendation section 4.....	33

Note to Reader:

A full glossary of technical terms and abbreviations used throughout this report is provided in Appendix A: Glossary of Technical Terminology.

Readers unfamiliar with timber supply terminology may wish to refer to it when reviewing the analysis.

Executive Summary

This technical assessment was conducted to evaluate whether the current allowable annual cut (AAC) for the Merritt Timber Supply Area (TSA) continues to reflect actual and sustainable timber availability considering substantial changes in forest conditions, management priorities, and operational realities since the 2016 Timber Supply Review (TSR). The analysis responds to concerns raised by First Nations, district staff, licensees, and provincial leadership that the existing AAC of 1 200 000 m³/year no longer aligns with ecological conditions, harvest performance, or evolving Indigenous-led stewardship processes.

Significant shifts have occurred since the last TSR. The Merritt TSA has experienced extensive and severe wildfire impacts, with more than 100 000 hectares burned since 2015. Many stands previously assumed operable—such as steep dry-belt Douglas-fir and steep Williamson's Sapsucker habitat—are now widely recognized as inaccessible or ecologically unsuitable for harvest. Indigenous Forestry Standards have also evolved, with First Nations and operators applying substantially higher riparian retention and in-block retention levels than those reflected in the 2016 base case.

In partnership with the Merritt TSA Strategic Technical Working Group—including First Nations, licensees, BC Timber Sales, and Ministry staff—this assessment quantified reductions to the timber harvesting land base (THLB) from wildfire, operational inoperability, Indigenous stewardship designations, and increased riparian and retention requirements. Each reduction was converted into an AAC impact using the TSR derived THLB ratio (~2.02 m³/ha).

The joint recommendations developed by First Nations and supported at the technical table include three components:

- 1. Wildfire and operational inoperability**
Reductions from low-to-high burn severity wildfire and steep-slope operability constraints yield a combined AAC impact of **121 113 m³/year**, reducing the AAC to **1 078 887 m³/year**.
- 2. Priority old growth deferrals and Wolfe Creek water protection corridor**
Applying a 50% area impact for the TAP Old Growth Deferral Areas and Wolfe Creek Emergency Water Protection Corridor results in a further reduction of **82 354 m³/year**, lowering the AAC to **996 533 m³/year**.
- 3. Indigenous Forestry Standards (riparian + in-block retention)**
Increased riparian retention (75% basal area) and increased in-block retention (15%), supported by proxy THLB modelling and Working Group judgement, result in an additional reduction of **125 563 m³/year**, producing a final recommended AAC of: **870 970 m³/year**.

This recommended AAC reflects the best available information and the consensus of participating First Nations and technical partners. These figures may change depending on which factors and proportions the chief forester (CF) elects to include in the final determination.

The findings highlight a major structural shift in the Merritt TSA's timber supply, driven by natural disturbance, climate related operability decline, and strengthened Indigenous governance. Updating the AAC to reflect these realities will support sustainable harvesting, improve alignment with current practices, reduce uncertainty in planning processes such as Forest Landscape Planning (FLP), and ensure that decisions are consistent with First Nations values and ongoing land use initiatives.

Objective of this document

The allowable annual cut (AAC) is the maximum volume of timber that can be harvested in a forest management unit annually, determined by the chief forester under British Columbia's *Forest Act*. AAC determinations are informed by the Timber Supply Review (TSR), a comprehensive 10-year process involving data collection, analysis, and collaboration with First Nations and impacted stakeholders.

AAC determinations play a crucial role in sustainable forest management, which is defined as "management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things while providing environmental, economic, social and cultural opportunities for present and future generations." AAC determinations also have the potential to impact Aboriginal rights, Indigenous land management, and the economic opportunities of First Nations.

Some First Nations in British Columbia have expressed concerns that the AAC currently in place over their territories is not sustainable and contributing to harvest levels that are not consistent with Indigenous land management and cultural values. Additionally, municipal and industry stakeholders often share the view that the AAC is too high, citing ecological concerns, economic constraints, and misalignment with current timber availability.

The ability of forest licensees to harvest the AAC is demonstrated by harvest performance. Over the past several years, timber harvest levels in the province have fallen significantly short of the AAC. This discrepancy highlights the growing misalignment between AAC levels and the realities of timber supply, access, and economic viability.

These outcomes are largely the result of changes in timber supply conditions in some areas since the TSR was completed. The current AAC in these areas does not reflect the emerging challenges. These include the following:

- Loses due to wildfire. In the last number of years, BC has experienced several large wildfires that have significantly reduced harvestable timber stocks in some timber supply areas.

- Decline in beetle salvage. AAC estimates in some areas assumed significant contributions from timber affected by the mountain pine beetle outbreak of the early 2000s. However, much of this beetle-damaged timber has deteriorated beyond salvage.
- Economic Limitations. With increased costs and reduced lumber prices, licensees operating in more remote parts of the province are not able profitably access and harvest stands in remote areas.
- Changing Objectives. As a result of revised land-use priorities through Government-to-Government forums and other processes, some areas that were previously contributing to AAC are no longer accessible for timber harvesting.

To address these concerns, a reassessment of AAC levels in affected regions is necessary to ensure sustainable resource management, economic viability, and confidence in forestry decision-making.

Changes in forest conditions and management priorities have made some AAC levels increasingly difficult to achieve, which in some cases create environmental, economic, and administrative challenges. While AAC determinations are based on a thorough analysis at the time of assessment, evolving factors—including natural disturbances, economic constraints, and policy shifts—may alter the feasibility of harvesting at the originally projected levels. This misalignment complicates land base planning and decision making, such as Forest Landscape Planning, as unachievable AAC levels can lead to overstated economic impacts from practice changes. Additionally, persistent gaps between AAC and actual harvest levels can undermine public confidence, making long-term forestry planning more difficult.

A balanced and timely approach is essential to adjusting AAC levels in areas where updated assessments indicate they no longer reflect current forest conditions. This will ensure that harvest levels are sustainable, economically viable, and aligned with evolving land-use priorities.

The Timber Supply Review (TSR)—led by the Office of the Chief Forester (OCF)—is the established process for assessing forest conditions and timber harvesting options within a Timber Supply Area (TSA) or Tree Farm Licence (TFL). Using advanced inventory and modelling techniques, the TSR provides the chief forester with a rigorous assessment of timber availability to inform AAC determinations. Conducted once every 10 years for each unit, the TSR process typically takes 36 months to complete.

However, given the need for a timely and responsive approach to adjusting AAC levels between TSR cycles, the OCF is proposing a new collaborative process with First Nations to reassess AAC levels in high-risk TSAs. This approach must be collaborative, efficient, and transparent, ensuring that AAC adjustments align with government commitments to sustainable forest management and Indigenous partnership. The proposed AAC Adjustment Process includes the following steps.

AAC Adjustment Process

1. Decision to Proceed

The need for an AAC adjustment in a timber supply area to account for significant changes in forest conditions (e.g., impacts of severe wildfire) or practices may emerge at local collaborative tables, engagement forums, or management committee meetings. This step involves dialogue between First Nations, licensees, and the Province regarding the factors driving change and the implications for the sustainability of the timber supply. The goal is to reach an agreement among the parties on whether to proceed with an adjustment process.

2. Analysis and Assessment

This step involves gathering quantitative information based on recommendations from local forest managers and First Nations on changes affecting factors the chief forester originally considered when setting the AAC for the area. These changes may relate to significant disturbances in forested regions, such as losses due to wildfire, insect outbreaks, or disease. Additionally, modifications to the land base available for harvesting—whether through implemented government actions or government-to-government agreements—may impact resource availability.

Economic and operational conditions also play a role in AAC feasibility. Areas previously deemed operable may now be considered inaccessible due to evolving financial constraints or logistical challenges faced by forest license holders.

3. Engagement on AAC Adjustment and Apportionment

The Office of the Chief Forester will provide all local First Nations with technical analysis and updated assessments of timber supply changes. Discussions will take place through local planning tables and/or direct engagement with individual First Nations to ensure the applicability and reliability of the information and options provided.

During these discussions, participants may identify the need for additional data collection or development of alternative options to ensure a comprehensive understanding of timber supply factors before finalizing any recommendations.

4. Adjustment Recommendations

This step focuses on the co-development of recommendations regarding potential AAC adjustments, including the extent of the adjustment and the reason for the change. It will also include development of recommendations on how the changed AAC for the timber supply area should be apportioned among various agreement types.

Where possible, the Ministry and First Nations will work toward joint recommendations, which will be presented to the Chief Forester and the Minister. As part of this process, direct meetings between the Chief Forester and First Nations will take place before final AAC adjustments are made, ensuring a transparent and inclusive approach to decision-making.

5. Adjust and Apportion the AAC

Once the chief forester has received joint recommendations, met with local First Nations and completed a public review, an AAC adjustment decision will be made under Section 8 of the *Forest Act*. The Minister of Forests may then apportion the changed AAC to various forms of forest agreements, ensuring a transparent and coordinated implementation across agreements and affected stakeholders.

Statutory Framework

According to Section 8 of the *Forest Act* the chief forester must regularly review and set new AACs for all TSAs and TFLs in the Province of British Columbia (BC).

The objectives of the timber supply review are to:

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

Acknowledgement

The Forest Analysis and Inventory Branch staff greatly appreciate the Merritt TSA's Strategic Committee, made up of First Nations representatives, Cascades Natural Resource District, South Area Region, licensees, BCTS, and members of the public, that contributed to the project. Given the innovative nature of this project, it is beyond valued that the groups worked tirelessly to not only push for, but to find mutual understanding to reach a shared goal to expedite the AAC adjustment to alleviate pressures brought on by forest practice changes and impacts of extensive wildfires to the TSA.

Description of the Merritt Timber Supply Area

Located in the southern interior region of British Columbia, the Merritt TSA covers an area of about 1.13 million hectares. It is bounded to the north by the Kamloops TSA, to the east by the Okanagan TSA, to the west by the Fraser and Lillooet TSAs, and to the south by Manning and Cathedral Parks and the Canada-U.S.A. border. The Merritt TSA is located within the Thompson Okanagan Natural Resource Region and is administered by the Cascades Natural Resource District in Merritt.

The Merritt TSA includes the overlapping territories of the following First Nations: Adams Lake Indian Band, Ashcroft Indian Band, Stuctwewsemc (Bonaparte Indian Band), Boothroyd Band, Boston Bar First Nation, Chawathil First Nation, Seabird Island First Nation, Spuzzum First Nation, Stó:lō Nation, Yale First Nation, Coldwater Indian Band, Cook's Ferry Indian Band, Kanaka Bar First Nation, Lower Nicola Indian Band, Lytton First Nation, Nooaitch Indian Band, Shackan Indian Band, Siska Indian Band, Stk'emlupsemc te Secwepemc Nation, Tk'emlups, Skeetchestn, Upper Nicola Band, Upper Similkameen Indian Band, Oregon Jack Creek Indian Band, Lower Similkameen Indian Band, Neskonlith, Nicomen Indian Band, Okanagan Indian Band, Penticton Indian Band, the Nlaka'pamux Nation, and the Westbank First Nation.

Communities located in the Merritt TSA include Merritt, Princeton, Tulameen, Brookmere, Missezula Lake, East Gate, Douglas Lake, Spences Bridge, and Allison Lake. First Nations communities located within the TSA include: Coldwater, Cooks Ferry, Nooaitch, Shackan, Upper Nicola, Lower Nicola, and Upper Similkameen.

History of the AAC

In 1996, the AAC for the Merritt TSA was determined to be 1 454 250 cubic metres of which 250 000 cubic metres was partitioned to small-diameter pine types. In 1999, the AAC was set at 2 004 250 cubic metres, which reflected a two-year uplift of 550 000 cubic metres per year to address the recovery of fire-damaged wood and a mountain pine beetle infestation in the southern portion of the TSA and maintained the 250 000 cubic metre small-diameter pine partition.

In 2001, the salvage uplift was removed and the AAC was set at 1 508 050 cubic metres, which represented the pre-uplift AAC and a 62 500 cubic metre increase in the small-diameter pine partition from 250 000 cubic metres to 312 500 cubic metres.

In 2005, the AAC was increased to 2 814 171 cubic metres reflecting new inventory and site productivity information collected under Innovative Forestry Practices Agreements and a temporary uplift of 1 000 000 cubic metres to address mountain pine beetle infestation. The small-diameter pine type partition of 312 500 cubic metres was maintained.

In 2010, the AAC was decreased to 2 400 000 cubic metres, which includes a 720 000 cubic metre partition to limit the amount of non-pine (specifically spruce and Douglas-fir) harvested, while still encouraging spruce beetle management in the Merritt TSA.

In 2016, the AAC for the Merritt TSA was decreased to 1 500 000 cubic metres. Then, effective March 30, 2021, the AAC was decreased again to be 1 200 000 cubic metres. This AAC will remain in effect until a new AAC is determined, which is required to take place within 10 years of the previous determination.

Role and limitations of Technical Information Used

Section 8 of the *Forest Act* requires the chief forester, in determining AACs, to consider biophysical, social and economic information. Most of the technical information used in determinations is in the form of a timber supply analysis and its inputs. These inputs are concerned primarily with biophysical factors—such as the rate of timber growth and the definition of the land base considered available for timber harvesting—and with management practices.

The analytical techniques used to assess timber supply necessarily are simplifications of the real world. Many of the factors used as inputs to timber supply analysis are uncertain, due in part to variation in physical, biological and social conditions. Ongoing scientific studies of ecological dynamics will help reduce some of this uncertainty.

Furthermore, computer models cannot incorporate all the social, cultural and economic factors that are relevant when making forest management decisions. Technical information and analysis, therefore, do not necessarily provide the complete answers or solutions to forest management decisions such as AAC determinations. Such information does provide valuable insight into potential impacts of different resource-use assumptions and actions and thus forms an important component of the information must be considered in AAC determinations.

Factors Covered in Previous Timber Supply Review

The following table (*Table 1*) summarizes the factors required to be considered under Section 8 of the *Forest Act*. Where the chief forester concluded in 2016, that the modelling of a factor in the base case appropriately represented the current management or the best available information, and uncertainties about the factor have little influence on the timber supply projected in the base case, they are listed as factor accepted as modelled (FAAM) or no adjustment is listed in the impact column. Where an impact was described, it is included as well.

Table 1. Summary of factors as required by Section 8 of the Forest Act.

Section of Forest Act	Factor	Base Case Impact (2016 Rationale)
8(8)(a)(i)	The composition of the forest and its expected rate of growth on the area	
1	Overview of the land base (net down table)	FAAM
2	Private and alienated Crown land	FAAM
3	Area based tenures	FAAM
4	Non-forest	FAAM
5	Current roads, trails and landings	FAAM
6	Future roads, trails and landings	FAAM
7	Parks and ecological reserves	FAAM
8	Environmentally sensitive areas [±]	FAAM
9	Inoperable areas [±]	FAAM
10	Problem forest types	FAAM
Existing Forest Inventory		
11	Forest inventory	FAAM
Expected Rate of Growth		
12	Growth and yield introduction	6% underestimate. Mid-term, by year 2066 (pg. 16)
13	Volume estimates for natural stands	FAAM
14	Genetic gain	2-5% underestimate. Mid-term, by year 2066 (pg. 14)
14	Site productivity estimates	FAAM
15	Minimum harvest criteria [±]	FAAM

Section of Forest Act	Factor	Base Case Impact (2016 Rationale)
8(8)(a)(ii)	The expected time that it will take the forest to become re-established on the area following denudation	
16	Regeneration delay	FAAM
8(8)(a)(iii)	Silviculture treatments to be applied to the area	
17	Silviculture systems [±]	FAAM
18	Incremental silviculture	FAAM
8(8)(a)(iv)	The standard of timber utilization and allowance for decay, waste and breakage expected to be applied with respect to timber harvesting on the area	
19	Utilization standards	FAAM
20	Decay, waste and breakage	FAAM
8(8)(a)(v)	The constraints on the amount of timber produced from the area that reasonably can be expected by use of the area for purposes other than timber production	
21	Archaeological Sites and First Nations Cultural Use and Sensitive Sites ^{±‡}	FAAM
22	Riparian requirements	BC overestimate 1%
23	Heritage trails	FAAM
24	Wildlife habitat areas	Overestimate THLB 0.2%; no adjustment
25	Old growth management areas (OGMAs)	FAAM
26	Ungulate winter range	BC overestimate 1%
27	IRM adjacency	BC overestimate UNQ%
28	Community watersheds	BC overestimate 1%

Section of Forest Act	Factor	Base Case Impact (2016 Rationale)
29	Wildlife tree retention	BC underestimate 2.5%
30	Visual quality	FAAM
8(8)(a)(vi)	Any other information that, in the chief forester's opinion, relates to the capability of the area to produce timber	
31	Cumulative effects	FAAM
32	Climate change	FAAM
33	Community fire interface	FAAM
34	Harvest performance [±]	FAAM
8(8)(b)	The short- and long-term implications to British Columbia of alternative rates of timber harvesting from the area	
35	Alternative harvest forecasts	FAAM
8(8)(d)	The economic and social objectives of the government, as expressed by the minister, for the area, for the general region and for British Columbia	
36	Socio-economic interests of the Crown (ministers' letters)	Accepted
37	Merritt socio-economic analysis	FAAM
38	Public review process	Accepted
39	First Nations consultation	Accepted
8(8)(e)	Abnormal infestations in and devastations of, and major salvage programs planned for, timber on the area	
40	Volume from dead pine stands (Grade 4 credits) [±]	FAAM
41	Forest health management non-MPB	FAAM
42	Unsalvaged losses	BC overestimate 4%

FAAM: factor accepted as modelled

± - added to implementation instructions, refer to them for more information/performance

‡ - Stoyoma = 1.25%/6969ha; XeXe =619ha of THLB

° - UNQ = unquantified amount

Implementation Instruction and Subsequent Performance

In the period following the 2016 decision and leading to the subsequent determination, the chief forester encouraged Ministry of Forests (the “ministry”) staff and licensees to undertake the tasks and studies noted below that were also mentioned in above sections of this document.

It was recognized that the ability of staff to undertake these projects is dependent on available time and funding. These projects were, however, important to help reduce the risk and uncertainty associated with key factors that affect the timber supply in the TSA:

Environmentally sensitive areas and inoperable areas – the chief forester recommended that district staff and licensees expand the available terrain stability mapping, particularly in areas of steeper slopes, to better estimate the area suitable for timber harvesting.

Since the TSR decision, district and local operators have observed that some areas with slopes greater than 50%, such as dry-belt fir, some visual quality objectives, and Williamson’s Sapsucker habitat are not achievable. These will be discussed further within the Operational Challenges factors.

Cultural heritage resource, spiritually significant areas – the chief forester strongly encouraged FOR, licensees and First Nations to work together to formalize a plan for these areas that respects the identified values and intended management for the areas.

District staff and local operators all agree that the avoidance of these culturally or spiritually significant areas, despite early planning stage, are impacting timber supply. Given the impact and importance to First Nations, this factor will be discussed within first nations cultural use, sensitive sites, and no harvest area factors.

Old growth management areas – as recommended in the 2014 OGMA monitoring project, the chief forester requested that value checks be conducted on replacement OGMA areas to ensure they contain at least equivalent attributes for old growth, and that prior to harvesting of an OGMA, licensees and district staff work with First Nations to ensure that the values supported by the original areas are maintained.

Community fire interface – the chief forester supported the implementation of a system to track these minor depletions over time, so that they can be appropriately factored into timber supply analysis.

District staff and local operators have kept a keen eye on the wildfire impacts to the timber supply and was the origin of AAC adjustment initiative due to the extensive size and intensity of wildfires in recent years.

Harvest performance – the chief forester expected licensees to perform in the stand profile assumed to contribute to timber supply – including dry-belt fir and lower volume stands of between 150 and 200 cubic metres per hectare and report on this performance to the

district. The chief forester expected district staff to report this harvest performance information to the OCF on an annual basis.

Table 2 summarizes the information provided by local operators via district staff. It shows that all three sub-categories within the harvest performance factors have fallen short of their targets that were set in the *2016 Rationale*.

Table 2. Summary of tracked harvest performance metrics provided by local operators

Implementation Instruction Factor Name	Annual Average (2016- 2024) (m³)	TSR Target (m³/ year)	Difference (cumulative) for 9 years
Low vol (all categories)	100,180	150,000	-448,381
Percent of total annual harvest	7%	10-13% AAC	
Dry-belt fir	29,219	50,000	-187,029
Percent of total annual harvest	2%	3-4% AAC	
UWR >30% Fd and Cells	85,145	200,000	-1,033,692
Percent of Total Annual Harvest	7%	13-17% AAC	
Average Total Harvest HBS (m ³ /year)	1,449,549 (2016-2025) 1,063,638 (2021-2025)		

Harvest Performance

Since the previous TSR, the annual harvest has steadily declined in volume, which can be seen in Table 3 below. Every year since the 2021 step down, aside from 2022, the harvest was below the AAC. For the last 5 years, since the step down, the average under harvest has been -136 362 m³. Under harvest indicates misalignment between theoretical and actual operability.

Table 3. Annual harvest by year and the amount below or over the AAC

AAC (m³/ year)	Year	Harvest (m³)¹	Harvest Under/ Over AAC (m³)
1,500,000	2016	2,361,859	861,859
	2017	1,871,124	371,124
	2018	1,678,866	178,866
	2019	1,615,943	115,943
	2020	1,649,513	149,513
1,200,000	2021	1,086,958	-113,042
	2022	1,223,684	23,684
	2023	967,555	-232,445
	2024	975,419	-224,581
	2025	1,064,574	-135,426

¹ All logs, special forest products, species and grades billed to crown land. Includes avoidable waste. Excludes Christmas trees, unavoidable waste, reject, private, and federal land. For all scale invoiced as of January 13, 2026.

Factor Overview Since Previous TSR

Since the 2016 Timber Supply Review (TSR), a range of developments have significantly influenced the available timber supply in the Merritt Timber Supply Area (TSA). These changes include environmental disturbances, evolving forest management practices, operational constraints, and Indigenous-led land use designations. Each factor introduces new limitations or uncertainties that were either not present or not fully accounted for in the previous base case scenario. This section outlines the key factors and explores their implications for timber supply. In other words, in 2016 these were assumed operable, and operational experience since then demonstrates otherwise.

Wildfire Impact

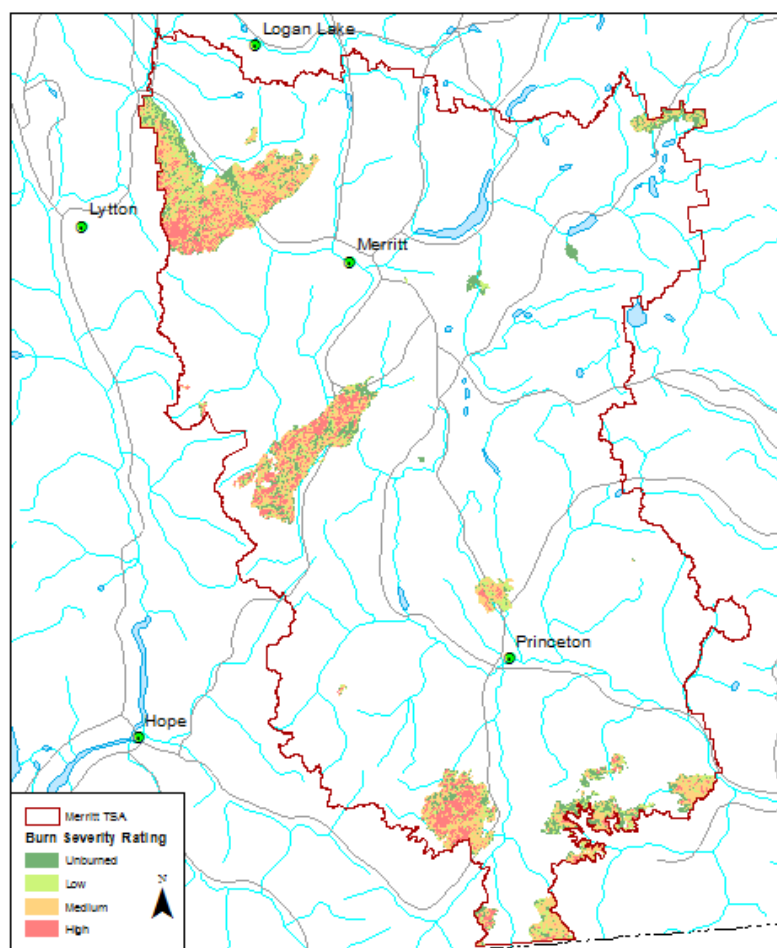


Figure 1. Map of the Merritt TSA with wildfires from 2015-2024 displayed by burn severity rating.

been overestimated by about 47 000 cubic metres per year, or 4% for NRL. More specifically, 22 000 cubic metres per year was applied to account for wildfire losses.

Throughout British Columbia, many timber supply areas have been greatly impacted by wildfires that have grown in frequency and size over recent years. The Merritt TSA is no exception, it has had several large wildfires, covering over 100,000 hectares, approximately 9% of the TSA, since the 2015 wildfire season.

At the time of the previous TSR, future wildfire impacts were not included as a sensitivity analysis, as the frequency and size had not grown to the massive extent they have in recent years. Rather, non-recoverable losses were modelled during the previous TSR and were intended to account for the merchantable volume losses due to natural processes such as wildfire, wind and forest health. The 2016 Rationale concluded that the base case harvest levels had

During this technical assessment, to capture the impact of wildfires to the short-term timber supply, the medium and high severity rated portions of the wildfires were considered lost to timber supply, while the low and unburned areas were assumed to be available for harvest.

The technical analysis treated only medium–high burn severity area as lost to timber supply. During deliberations, the Working Group recommended including low–high severity for recent fires due to an estimated ~4-year salvage window and the fact that most mapped wildfires pre-date 2022. This adds 6359 ha of low-severity area to the analysis footprint (from 31 165 ha to 37 524 ha THLB effect) and increases the wildfire AAC impact by ~12 874 m³/year. The joint recommendation therefore applies low–high severity. Accordingly, all wildfire values referenced in the *Joint Recommendations* section are based on the low–high severity assumption unless otherwise stated.

Indigenous Forestry Standards

Riparian Management Areas

The 2016 base case scenario applied Riparian Reserve Zones (RRZ) and Riparian Management Zones (RMZ) that are consistent with Forest Planning and Practices Regulation (FPPR) Section 47 to 49. The Forest Stewardship Plans (FSPs) within the TSA now specify the basal area retention has been increased to 75% with all riparian management zones. The FSP commitment among licence holders demonstrates a change in practice.

In-block Retention

The Strategic Committee stated that practices now include an increase of area retained in-block retention. The 2016 TSR base case scenario used 8.1%, while 15% in-block retention is now current practice.

There was a sensitivity analysis ran during the 2016 TSR, it showed that reducing in-block retention from eight percent to four percent resulted in harvest levels that are four percent higher than in the base case.

Operational Challenges

Steep Dry-Belt Fir Stands

Dry-belt fir was defined as all Douglas-fir (Fd) leading, south facing (90-270 degrees-excluding flat aspects) polygons within the IDF and PP. In addition, for stands within the IDFdk, an elevation criterion of less than 1200 m was applied (above 1200 m there is greater moisture and greater regeneration success).

In the previous Timber Supply Review, dry-belt Douglas-fir stands were included in the timber harvesting land base based on assumptions that they would be harvested using uneven-aged silviculture systems, with natural regeneration expected to follow. These stands face significant regeneration challenges due to drought stress, low precipitation,

high temperatures, and cattle foraging, which undermine the assumptions used in the base case.

The previous determination acknowledged that if harvesting did not resume, these stands might need to be excluded in future reviews. Their continued inclusion without corresponding harvest activity introduces risk and uncertainty into the timber supply forecast, and adjusting their contribution aligns with observed performance and supports a more realistic AAC determination.

Given the low performance, especially on slopes greater than 50%, the Strategic Committee felt that steep dry-belt fir stands were no longer operable and should be removed.

Steep Williamson's Sapsucker Habitat

The Williamson's Sapsucker (*Sphyrapicus thyroideus*) Area of Occupancy (AO) on the west side of Okanagan Lake within the Cascade Forest District were included in the 2016 base case scenario. The Strategic Committee felt that low or moderate suitability areas where the slope exceeds 50% were no longer operable and should be removed.

Steep Visual Quality Objectives

The 2016 base case scenario included Preservation and Retention Visual Quality Objectives (VQO) as they would typically be represented in the THLB netdown. The Strategic Committee felt that steep (greater than 50% slope) preservation and retention stands were no longer operable and should be removed.

Technical Advisory Panel – Priority Old Growth Deferral Areas

Provincial staff have worked in partnership with First Nations and industry to identify and temporarily defer the logging of the priority Old Growth Deferral Areas. Transitioning from temporary deferrals to long-term decisions requires local insights. Deferrals will remain in place until local discussions on long-term management of old growth values are concluded through initiatives such as Modernized Land Use Plans and Forest Landscape Plans.

The TAP OGDAs were implemented in December of 2021, introduced in 2019, therefore they were not considered in the 2016 determination.

First Nations Cultural Use, Sensitive Sites, and No Harvest Area

Ashnola Indigenous Protected and Conserved Area (IPCA)

The Ashnola IPCA was provided by Lower Similkameen Indian Band (LSIB). The Syilx people of the Similkameen Valley declared the n̓ʔaysn̓úlaʔxw sn̓xaʔcniṭkw (Ashnola Watershed) an IPCA on April 28, 2022.

At the time of the AAC adjustment analysis, the proportion of the IPCA reduction was not definite, so the outline of the area was used.

Wolfe Creek Emergency Water Protection Area (WCEWPA)

The water protection corridor and the Wolfe Creek Emergency Water Protection Area were provided by Upper Similkameen Indian Band (USIB). The water protection corridor and the Wolfe Creek Emergency Water Protection Area were established by USIB on April 2, 2024.

The proposed reduction would include a 250 m buffer on both sides of all streams within the water protection corridor and potentially remove the entirety of the Wolfe Creek Emergency Water Protection Area.

Analytical Methodology**Vector Analysis*****Wildfire, Operational Changes, No Harvest, and TAP OGDA***

The burn severity mapping was initiated in 2015, so wildfires since then were the only ones used for the purposes of this analysis. A slope tif based on a digital elevation model (DEM) was used to create a steep (> 50%) slope vector layer that would be used to identify VQO (P & R), dry-belt fir, and WISA polygons for analysis. All layers used in the analysis were checked for overlapping geometry and clipped to the TSA boundary prior to completing the analysis.

An overlay of the vector layers listed in Table 4 was completed in August 2025 and two resultants were created using two sets of Vegetation Resources Inventory (VRI) releases (2015 & 2025) to compare the inventory information prior to and after the wildfires since the previous TSR.

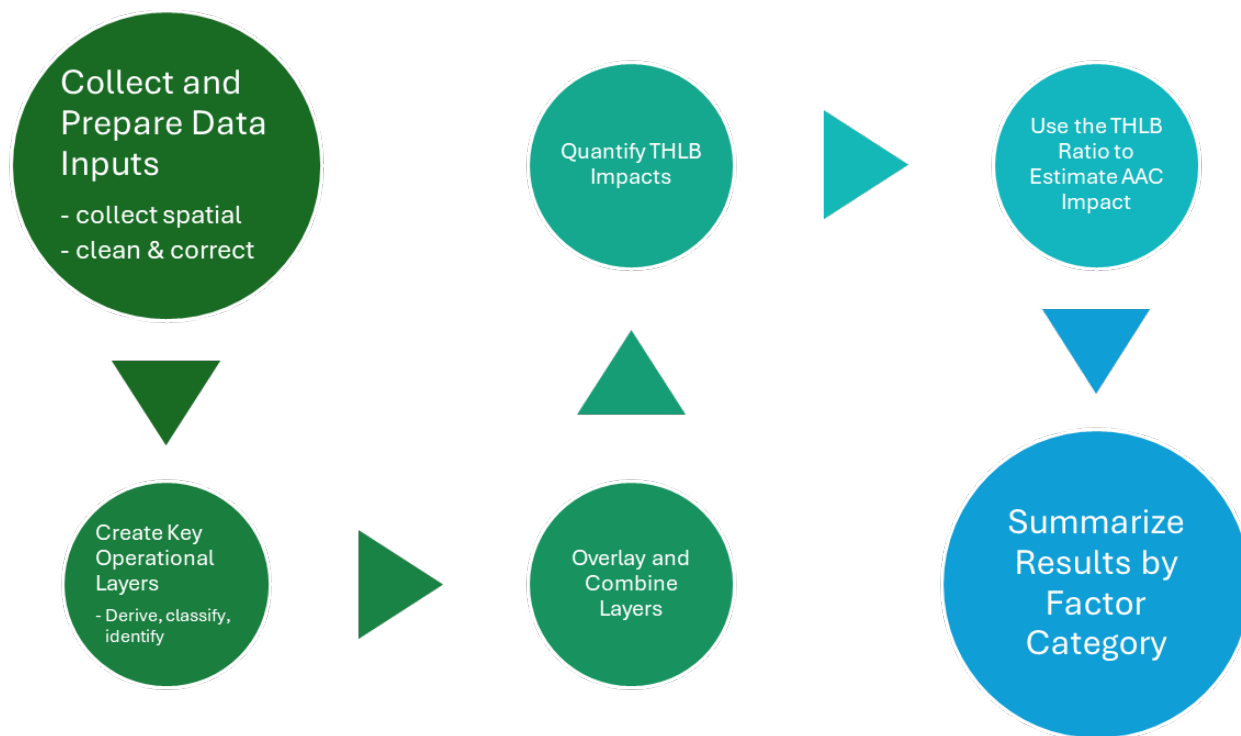


Figure 2. Analytical methodology flow infographic.

Data Sources:

Table 4. Analysis data inputs and sources

Layer	Full Layer Name	Source
2015 VRI	WHSE_FOREST_VEGETATION.VEG_COMP_LYR_R1_POLY	BCGW
2025 VRI	WHSE_FOREST_VEGETATION.VEG_COMP_LYR_R1_POLY	BCGW
Ashnola Indigenous Protected & Conserved Area (IPCA)	RTO_Potential_IPCAs	Local Dataset
Dry Belt Fir Stands	DryBeltFir	Local Dataset
Steep slopes	topography_slope.tif	DEM

Layer	Full Layer Name	Source
TAP Priority Old Growth Deferrals	WHSE_FOREST_VEGETATION.OGSR_TAP_PRIORITY_DEF_AREA_SP	BCGW
Timber harvesting land base	thlb_2024	Local Dataset
TSA boundary	WHSE_ADMIN_BOUNDARIES.FADM_TSA	BCGW
Visual Quality Objectives	WHSE_FOREST_VEGETATION.REC_VISUAL_LANDSCAPE_INVENTORY	BCGW
Water Protection Corridor (Assumed Stream Buffer)	Assumed_Stream_Buf_for_USIB_BCR_May2024	Local Dataset
Wildfire	WHSE_LAND_AND_NATURAL_RESOURCE.PROT_HISTORICAL_FIRE_POLYS_SP	BCGW
Wildfire burn severity	WHSE_FOREST_VEGETATION.VEG_BURN_SEVERITY_SP	BCGW
Williamson's Sapsucker AO Model	Final_WesternAO-Model.shp	Local Dataset
Williamson's Sapsucker Area of Occupancy	WesternAreaofOccupancy.shp	Local Dataset
Wolfe Creek Emergency Water Protection Area (WCEWPA)	USIB_Water_Protection_Corridor	Local Dataset

Proxy Netdown

Riparian Management Areas & In-block Retention

An error was identified in how the stream buffers were applied during the 2016 TSR analysis. Specifically, only one side of each stream was buffered, which significantly underestimated the actual area affected by riparian requirements. This miscalculation led to a lower reported impact on the timber harvesting land base. If both sides of the streams had been properly buffered, the reduction in available land would have been greater. As a result, the current timber harvesting land base, and the associated forecast, was overestimated by approximately 1%. That overestimation was accounted for in the *2016 Rationale*, however, the resulting THLB would not spatially represent the buffers. Additionally, the currently available vector data for riparian classification was limited or incomplete.

The in-block retention levels are generally created as a part of the netdown process during the base case development, so it is not expedient to create a spatial area like the other factors described in the vector analysis above.

Given the concerns for riparian buffers used to create the 2016 THLB and the limitations of vector data, a proxy netdown script was created for the TSA that would include the increased riparian and in-block retention levels.

The Proxy Netdown is a simplified way to estimate how much harvestable land is removed when riparian buffers and in-block retention requirements increase. In the Merritt TSA, the available riparian and retention datasets were either incomplete or inconsistent, making a full base-case rebuild impossible. The proxy method solves this by applying the new buffer widths and retention targets directly to the land base using a scripted, step-by-step removal process.

In plain language, the proxy netdown works like this:

1. Start with the full forest land base.
2. Apply basic exclusions first (non-forest, roads, parks, steep inoperable slopes).
3. Apply riparian buffers using the updated widths that reflect today's Indigenous Forestry Standards (e.g., 75% basal area retention).
4. Apply updated in-block retention requirements (15% instead of the 8.1% used in 2016).
5. Calculate the remaining area that would realistically be available for harvesting under today's practices.

Because it uses consistent rules and updated standards, the proxy netdown provides a realistic estimate of how much the harvestable land base has changed—even though a full timber supply model was not rebuilt.

As depicted in Figure 3, the Proxy Netdown process is a progressive exclusion algorithm where the BC land base is classified into four nest categories: FMLB (Forest Management Land Base), FALB (Forest Assessment Land Base), pAFLB (Proxy Analysis Forest Land Base), and pTHLB (Proxy Timber Harvesting Land Base).

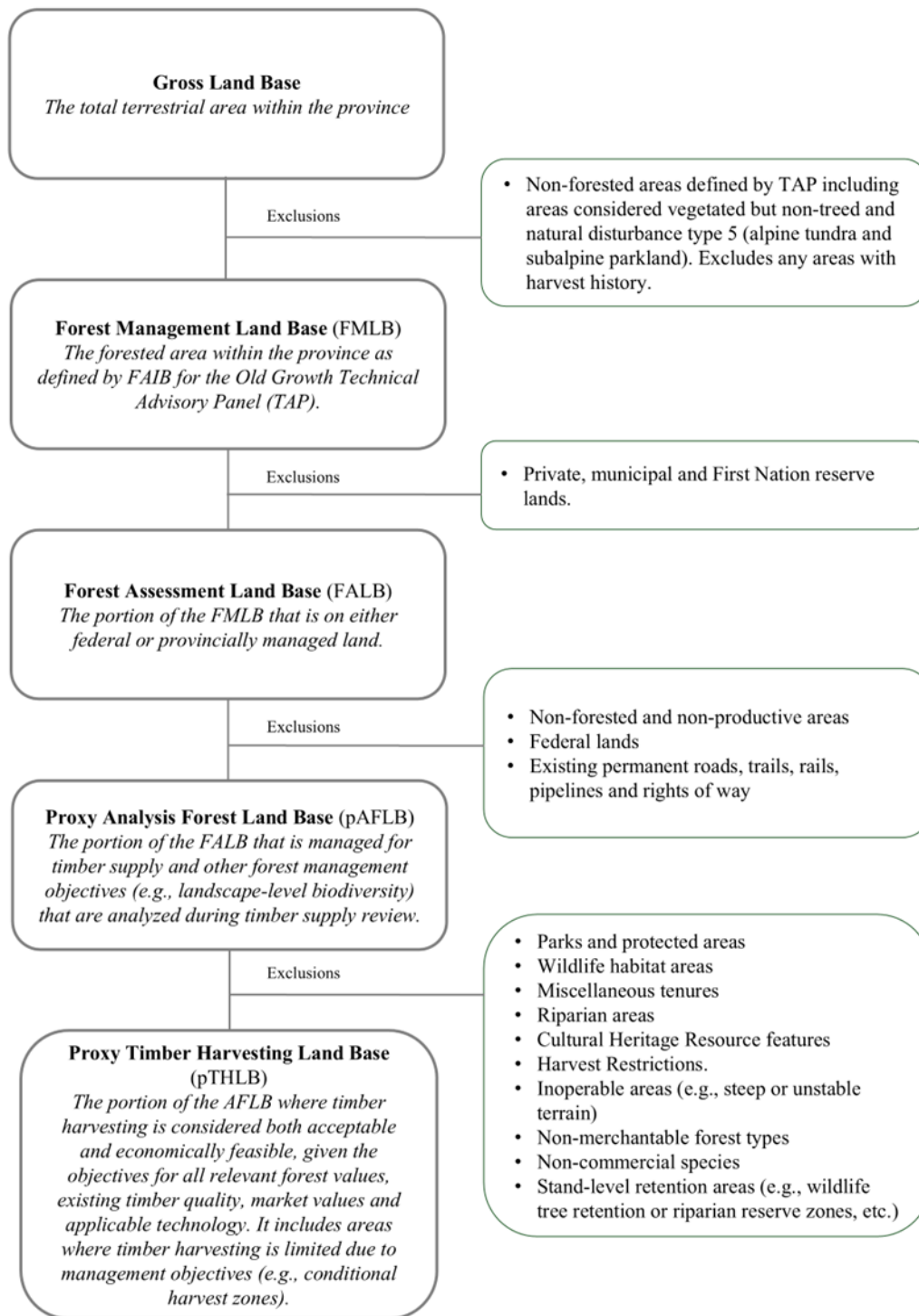


Figure 3. Netdown process diagram to explain the Proxy Netdown process.

Two Proxy Netdown scripts were run for comparison, one with standard FPPR riparian and in-block retention targets, and a second with the increased targets described under Indigenous Forestry Standards (IFS). The proxy netdown THLB riparian management zones basal area retention was increased to 75% (Table 5).

Table 5. Buffer width comparison 2016 analysis to 2025 analysis

Feature	Riparian Class	Buffer Width (m)		
		2025	2016	Difference
Lakes	L1	10	10	0
	L2	25	12	13
	L3	22.5	3	19.5
	L4	22.5	3	19.5
Wetlands	W1	40	14	26
	W2	25	12	13
	W3	22.5	0	22.5
	W4	22.5	3	19.5
	W5	40	14	26
Streams	S1-A	75	20	55
	S1-B	65	54	11
	S2	45	34	11
	S3	35	24	11
	S4	22.5	3	19.5
	S5	22.5	3	19.5
	S6	15	0	15

Analysis Results

Timber Harvesting Land Base Impacts

Table 6 summarizes the factors (except for IFS factors) described previously by their total THLB impact and their net (excluding other factors) impact, as well as their respective mature (greater than 60 years old) areas.

Table 6. Vector analysis results for timber harvesting land base (THLB) area impact by factor. Priority was given to layers from top to bottom when calculating 'net'. E.g. Wildfire was excluded from steep DBF total, then steep DBF & wildfire from steep WISA habitat

	Name/Description	THLB Area (ha)			
		Total	Mature Total	Net	Mature Net
	Wildfire (burn severity med-high, season 2015-2024)	31,165	24,577	20,381	14,878
Op. Changes	Steep Dry Belt Fir Stands	24,637	21,835	15,706	13,626
	Steep Williamson's Sapsucker Habitat	7,976	6,597	7,292	5,961
	Steep Visual Quality Objectives	551	544	23	18
No Harvest	Ashnola Indigenous Protected and Conserved Area (IPCA)	4,656	2,463	4,553	2,360
	Wolfe Creek Emergency Water Protection Corridor (outside Assumed Stream Buffer)	17,895	9,285	17,136	9,285
	Wolfe Creek Emergency Water Protection Corridor (Assumed Stream Buffer)*	29,109	16,941	27,222	16,941
TAP	Priority Old Growth Deferrals	34,350 [‡]	34,259	34,350 [‡]	34,259

*This layer only exists within the Water Protection Corridor, so it includes the area inside both (where they overlap)

‡Since TAP OGD is the last layer in priority, there is no difference between total and net, as there's no additional layers to exclude.

Table 7 shows the results of the two Proxy Netdown runs, one pTHLBr (the ‘regular’ FPPR inputs for riparian/retention), and second pTHLBs (the ‘special’ IFS inputs for riparian/retention).

Table 7. Proxy Netdown results for increased riparian and retention levels based on Indigenous forestry standards

Proxy Version	Total Area		Net Excluded		Netdown THLB ha
	Riparian	Retention	Riparian	Retention	
pTHLBr	61,396	63,003	24,391	32,745	538,995
pTHLBs	124,432	105,474	63,746	51,995	490,300
Difference	63,035	42,471	39,355	19,250	-48,696

Wildfire Inventory Impacts

Figure 4 shows the age class distribution for each VRI resultant from the vector analysis as either Analysis Forest Land Base (AFLB) or Timber Harvesting Land Base (THLB).

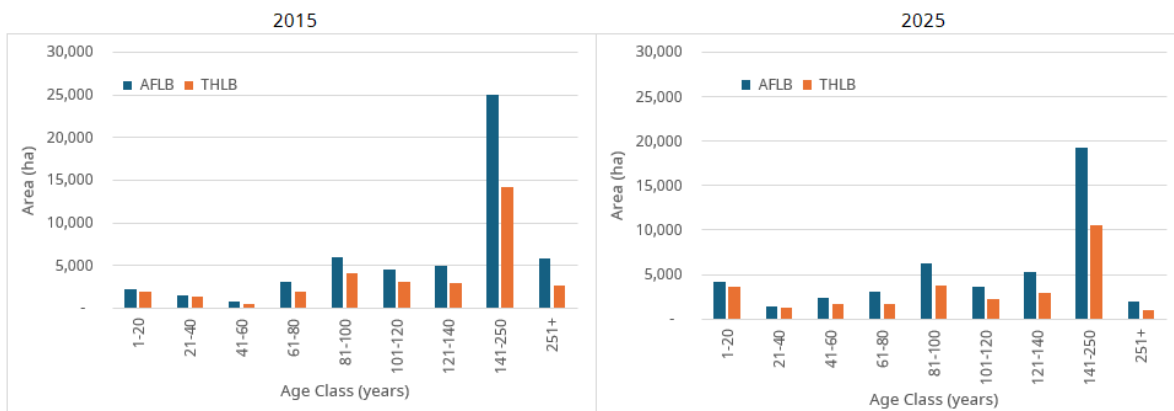


Figure 3. Age class distribution of AFLB/THLB for the 2015 and 2025 VRI datasets.

Figure 5 displays the species distribution by volume before (2015) and after the wildfire impacts (2025). There are dramatic differences when compared to the age class distribution charts in Figure 4. It is possible this is due to extensive salvage operations or how the burn severity mapping is used to update the VRI volume but does not adjust ages for those stands².

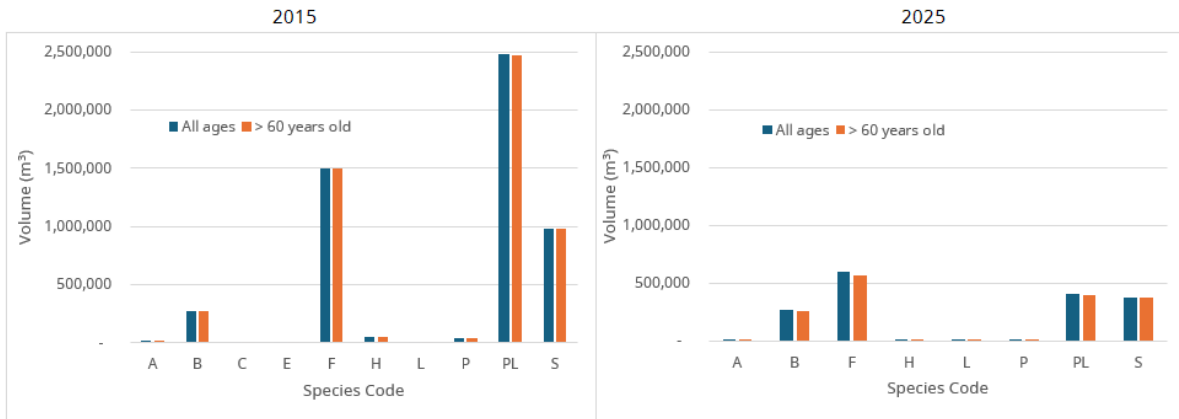


Figure 4. Species distribution of the two resultants by volume for all ages versus mature (> 60 years old).

² https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stewardship/forest-analysis-inventory/data-management/news/wildfire_2024_burn_severity_and_high_resolution_imagery_2.pdf

Discussion

Section 5 (2) (c) of the Allowable Annual Cut Administration Regulation describes the following formula, which is used to update the AAC after the minister changes the boundary of a given timber supply area under Section 7 of the *Forest Act* by at least 200 hectares (Equation 1).

Equation 1. formula from section 5 (2) (c) of the Allowable Annual Cut Administration Regulation that is used to update the AAC after changes to the boundary.

allowable annual cut of the timber supply area as it was immediately before the change to the boundary of the timber supply area	x	number of hectares removed from the timber harvesting land base of the timber supply area
timber harvesting land base of the timber supply area as it was immediately before the change to the boundary of the timber supply area		

This formula is often referred to as the “THLB Ratio” and was used to calculate the values in Table 8, Table 9, and Table 10. After dividing the AAC (1 200 000 m³/year) by the THLB at the time of the TSR (592 687 ha) the THLB ratio is ~2.02 m³ of AAC per hectare of THLB.

Table 8. THLB ratio formulated AAC impact for wildfire and operational changes/challenges factors

	Name/Description	Net THLB (ha)	AAC Impact (m³/year)	AAC Impact (%)
Wildfire	Wildfire (burn severity med-high, season 2015-2024)	31,165	63,096	5.3%
	Increment from adding low severity	6,359	12,874	1%
	Wildfire (burn severity low-high, season 2015-2024)	37,524	75,970	6.3%
Op. Changes	Steep Dry Belt Fir Stands	24,637	49,880	4.2%
	Steep Williamson's Sapsucker Habitat	7,976	16,148	1.3%
	Steep Visual Quality Objectives	551	1,116	0.09%

Table 9. THLB ratio formulated AAC impact for no harvest and TAP factors

	Name/Description	Net THLB (ha)	AAC Impact (m³/year)	AAC Impact (%)
No Harvest	Ashnola Indigenous Protected and Conserved Area (IPCA)	4,656	9,426	0.79%
	Wolfe Creek Emergency Water Protection Corridor (WPC)	17,895	36,230	3.0%
	Water Protection Corridor (Assumed Stream Buffer)*	29,109	58,933	4.9%
TAP	Priority Old Growth Deferrals	34,350	69,544	5.8%

**this layer only exists within the Water Protection Corridor, so it includes the area inside both (where they overlap)*

Table 10. THLB Ratio formulated AAC impact for Indigenous Forestry Standards factors

	Name/Description	Net THLB (ha)	AAC Impact (m ³ /year)	AAC Impact (%)
IFS	Riparian Management Areas	39,355	79,677	6.6%
	In-block Retention	19,250	38,973	3.2%

Joint Recommendations

The following recommendations build directly on the analytical results in Tables 8–10, with adjustments to wildfire assumptions (low–high severity) and recognition of the NRL already embedded in the current AAC. The First Nations caucus agreed upon joint recommendations (referred to as Option 7) that were then has a high degree of alignment by the Merritt TSA Strategic Technical Working Group table (First Nations, licensees, BCTS, and provincial staff) to present to the chief forester for decision.

The first component of the joint recommendation is the impacts from wildfire and the operational changes shown in Table 11 below. To reflect salvage shelf-life and observed conditions, the joint recommendation uses low–high burn severity. The incremental effect vs. the analysis assumption (med–high only) is +6359 ha and +~12 874 m³/yr AAC impact from wildfire.

To avoid double-counting with the 2016 NRL already embedded in the current AAC, we then subtract 22 000 m³/yr (see footnote) from the wildfire total before summing section totals. The AAC impact of wildfire based on the THLB Ratio is 75 970 m³/yr but with the 22 000m³/yr netted out, it is 53 970 m³/yr.

Table 11. Joint recommendation section 1

	Name/Description	Net THLB (ha)	AAC Impact (m³/year)	AAC Impact (%)
	Wildfire (burn severity low-high , season 2015-2024)	37,524	53,970³	4.5%
Op. Changes	Steep Dry Belt Fir Stands	24,637	49,880	4.2%
	Steep Williamson's Sapsucker Habitat	7,976	16,148	1.3%
	Steep Visual Quality Objectives	551	1,116	0.09%
Total			121,113	10.1%
AAC 2021 - AAC Impact (m ³ /year)		1,200,000	121,113	1,078,887

Building on the first component, the next section described in Table 12, summarizes the Technical Advisory Panel (TAP) priority old growth deferral areas (OGDA) and the Wolfe Creek Emergency water protection corridor (WPC). While it is uncertain the precise amount of each that would limit harvest, the group decided that 50% of each represents the estimated experience based on cutting permit referrals among the representatives from the First Nations caucus.

³ Less 22 000 m³/yr already included for wildfire in the 2016 Non-recoverable Losses – wildfire component used to set the current AAC; subtraction prevents double counting.

Table 12. Joint recommendation section 2

	Name/Description	Net THLB (ha)	AAC Impact (m ³ /year)	AAC Impact (%)
No Harvest	Wolfe Creek Emergency Water Protection Corridor (WPC) 50% of area	8,948	18,115	1.5%
	WPC Assumed Stream Buffer 50% of area	14,555	29,467	2.5%
TAP	Priority Old Growth Deferrals 50% of area	17,175	34,772	2.9%
Total			82,354	5%
AAC Impact (m ³ /year): 1,078,887 - 82,354			996,533	

Finally, the last section of the joint recommendation is summarized in Table 13 below. It includes the increased riparian management area retention and the increased in-block retention. The proxy THLB model excluded dispersed retention, as it is often coded as Reserve Objective = TIM (timber management, considered short-term retention), which is legally available for harvest prior to the cutblock reaching maturity. The AAC impact was subsequently manually increased from 3.2% to 6% to account for this.

Table 13. Joint recommendation section 3

	Name/Description	Net THLB (ha)	AAC Impact (m ³ /year)	AAC Impact (%)
IFS	Riparian Management Areas	39,355	79,677	6.6%
	In-block Retention	19,250	38,973	3.2%
RMA AAC Impact (%): $0.066 \times 996,533 \text{m}^3/\text{year}$				65,771
WTRA AAC Impact (%): $0.06 \times 996,533 \text{m}^3/\text{year}$				59,792
AAC Impact Total m ³ /year				125,563
Recommended AAC (974,533 - 125,563) m³/year				870,970

While the Ashnola Indigenous Protected and Conserved Area (IPCA) was not selected for the THLB removal, however, it could still be considered for partition. It represents a smaller exclusive area when compared with the Wolfe Creek WPC or TAP OGDA areas, slightly less than 1% of the 2021 AAC (Table 14).

Table 14. Joint recommendation section 4

	Name/Description	Net THLB (ha)	AAC Impact (m ³ /year)	AAC Impact (%)
No Harv	Ashnola Indigenous Protected and Conserved Area (IPCA)	4,656	9,426	0.79%

Conclusion

Together, these high degree of alignment recommendations reflect the best available understanding of how wildfire, changing forest conditions, Indigenous stewardship decisions, and modern operational practices have reduced the amount of land that can realistically support sustainable harvesting in the Merritt TSA. While the technical assessment identified the specific impacts of each factor, the Working Group and First Nations caucus reviewed this information carefully and had a high degree of alignment on which components should be included in an interim AAC adjustment. The resulting recommended AAC of **870 970 m³ per year** represents a clear and collaborative view of what the land can sustainably provide today. This value may be refined in the chief forester's final determination depending on which factors are included, but the recommendations provide a foundation for that decision.

Appendix A: Glossary of Technical Terminology

AAC (Allowable Annual Cut)

The maximum volume of timber that may be harvested from a Timber Supply Area (TSA) or Tree Farm Licence (TFL) annually, as determined by the chief forester under Section 8 of the *Forest Act*.

AAC Adjustment

A reassessment of the AAC between Timber Supply Review (TSR) cycles to address significant changes in forest condition, land-use priorities, or operability constraints.

AAC Impact

The reduction in allowable annual cut calculated by multiplying the THLB ratio (m^3/ha) by the net decrease in timber harvesting land base (THLB).

AFLB (Analysis Forest Land Base)

The portion of the land base used for timber supply analysis after excluding non-forest areas and other initial constraints.

Apportionment

The process by which the Minister allocates the AAC among various forms of forest tenure agreements after an AAC determination.

Base Case

The reference scenario in a TSR representing current forest management assumptions, harvest practices, and land base definitions.

Burn Severity Rating

A classification of wildfire impact (low, medium, high) used to infer mortality and salvage potential in the THLB. Burn severity mapping since 2015 is used in this assessment.

Cultural Use / Sensitive Sites

Areas identified by First Nations as culturally or spiritually significant where timber harvesting is prohibited or constrained.

DEM (Digital Elevation Model)

A raster dataset representing ground elevation used to derive slope layers for operability assessments.

Dry-belt Fir / Dry-belt Douglas-fir Stands

Douglas-fir-leading stands in dry interior ecosystems (IDF, PP) prone to regeneration challenges. Previously assumed operable, but now widely considered inoperable—especially on slopes $>50\%$.

FALB (Forest Assessment Land Base)

A transitional land base category in the Proxy Netdown that precedes creation of the proxy THLB (pTHLB).

FMLB (Forest Management Land Base)

The gross forest land base considered before applying management and environmental constraints.

FPPR (Forest Planning and Practices Regulation)

Regulation under the *Forest and Range Practices Act* defining legal riparian classes and retention requirements used in the base case.

Harvest Performance

Observed annual harvest volumes compared to the AAC and TSR assumptions. Used to evaluate operability and validate whether base case land base assumptions reflect actual practice.

IFS (Indigenous Forestry Standards)

Updated practices or standards proposed or implemented by First Nations, including higher riparian basal area retention (75%) and increased in-block retention (15%).

In-block Retention

Tree patches or retention within cutblocks left for ecological or cultural reasons. TSR 2016 assumed 8.1%; current practice is approximately 15%.

IPCA (Indigenous Protected and Conserved Area)

An area defined by Indigenous governance for protection and stewardship. In this report, refers to the Ashnola IPCA declared by the Lower Similkameen Indian Band in 2022.

Low-, Medium-, High-Severity Burn

Categories in wildfire mapping representing increasing mortality and timber loss; medium-high is assumed lost to THLB in this assessment.

NRL (Non-recoverable Losses)

Timber volume lost to natural disturbances (e.g., fire, insects) that is assumed unharvestable. In 2016, NRL was estimated at ~47 000 m³/year (including ~22 000 m³/year for wildfire).

OGMA (Old Growth Management Area)

Areas designated to preserve old growth values, excluded from harvest. Existing OGMA's were included in the 2016 base case.

OGDA (Old Growth Deferral Area)

Temporary deferrals identified by the Technical Advisory Panel (TAP) and First Nations for protection of priority old growth until long-term decisions are made. Implemented in 2021.

pTHLB (Proxy Timber Harvesting Land Base)

A modeled estimate of THLB using updated riparian buffers and in-block retention levels when spatial data limitations prevent a full base case rebuild. Used to estimate THLB changes under Indigenous Forestry Standards.

Proxy Netdown

A spatially progressive exclusion model designed to approximate updated THLB impacts from revised riparian requirements and retention levels. Used due to incomplete or inconsistent riparian data.

Retention (Basal Area Retention)

Percentage of basal area required to be left unharvested in riparian or in-block zones. FPPR defaults were used in 2016; industry and First Nations now apply ~75% riparian basal area retention.

RRZ / RMZ (Riparian Reserve Zone / Riparian Management Zone)

Legally defined buffer areas along lakes, streams, and wetlands with specific retention requirements.

TAP (Technical Advisory Panel)

A provincial panel convened to identify priority old growth deferral areas based on ecological risk and rarity.

THLB (Timber Harvesting Land Base)

The portion of the forest land base considered available for timber harvesting after applying all legal, environmental, cultural, and operational constraints. TSR 2016 THLB = 592 687 ha.

THLB Ratio

A calculation used to estimate AAC impact: $AAC \div THLB = m^3 \text{ of AAC per hectare of THLB}$. In this assessment: $1\ 200\ 000\ m^3 \div 592\ 687\ ha = 2.02\ m^3/ha$.

TSR (Timber Supply Review)

A legislated 10-year cycle that assesses forest condition, management practices, and timber availability to support AAC determinations.

VRI (Vegetation Resources Inventory)

The provincial forest inventory dataset, used here in 2015 and 2025 versions to assess wildfire impacts.

VQO (Visual Quality Objective)

Landscape-level visual constraints. Steep preservation and retention VQO polygons (>50% slope) are now considered inoperable.

WCEWPA (Wolfe Creek Emergency Water Protection Area)

A no-harvest area and water protection corridor established by Upper Similkameen Indian Band in 2024. Includes stream buffers and elevated watershed protection zones.

WISA (Williamson's Sapsucker Habitat)

Habitat suitability polygons for the Williamson's Sapsucker. Low and moderate suitability areas on steep slopes (>50%) are now considered inoperable.