

Chief Forester Order
Respecting the AAC Determination
for the Golden Timber Supply Area

Section 8 (3.1) of the *Forest Act* stipulates in part that:

If... the chief forester considers that the allowable annual cut...is not likely to be changed significantly with a new determination, then...the chief forester by written order may postpone the next determination...to a date that is up to 15 years after the date of the relevant last determination and must give written reasons for the postponement.

In considering whether to postpone the next allowable annual cut (AAC) determination for the Golden Timber Supply Area (TSA), I note that the last determination, made on June 3, 2010, set the AAC at 485 000 cubic metres.

In considering all the factors required under Section 8 of the *Forest Act*, I have reviewed the following:

Legislation

- Province of BC. *Forest Act* Section 8 (3.1);
- Province of BC. *Forest Act Cut Control Regulation* (BC Reg 258/2019).

Timber Supply Documents

- Jahraus & Associates, and Churlish Consulting Ltd. *Golden TSA: Documentation of Analysis for Vegetation Resources Inventory Statistical Adjustment and Net Volume Adjustment Factor Development Report*. 2007;
- BC Ministry of Forests, Lands and Natural Resource Operations, Forest Analysis and Inventory Branch. *Golden TSA Young Stand Monitoring Report*. Unpublished. 2016;
- BC Ministry of Forests, Lands and Natural Resource Operations, Resource Practices Branch. *Provincial Timber Management Goals, Objectives and Targets, Management Unit Targets: Golden TSA*. September 4, 2019;
- BC Ministry of Forests, Lands and Natural Resource Operations, Forest Analysis and Inventory Branch. *Volume Losses by Timber Supply Area 1999-2019*. Unpublished. 2019;
- BC Ministry of Forests, Lands and Natural Resource Operations, Forest Analysis and Inventory Branch. *Mature Inventory Audit for Management Unit: TSA07 Golden*. Unpublished. January 13, 2020;
- BC Ministry of Forests, Lands and Natural Resource Operations, Forest Analysis and Inventory Branch. *Golden TSA Young Stand Modelling Program*. October 29, 2020;
- Forsite Consulting. *Golden TSA Timber Supply Review #4 Timber Supply Analysis Data Package*. July 18, 2008;
- Forsite Consulting. *Golden TSA Timber Supply Review #4 Timber Supply Analysis Report*. February 20, 2009;

- BC Ministry of Forests, Lands and Natural Resource Operations, Forest Analysis and Inventory Branch. *Golden Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination*. June 3, 2010.

Land Use, Forest Practices and Other Documents

- BC Ministry of Forests, Lands and Natural Resource Operations Province of BC, Timber Pricing Branch. *Provincial Logging Residue and Waste Measurement Procedures Manual. Amendment No. 29*. April 1, 2019;
- BC Ministry of Forests, Lands and Natural Resource Operations. *Kootenay-Boundary Higher Level Plan Order*. Pursuant to Sections 3(10), 3(2), and 9.1 of the Forest Practices Code of BC. October 26, 2020;
- Land and Forests Within 2021 Wildfire Perimeters Report 13_09_2021.

First Nations

- Supreme Court of Canada. *R. v. Desautel, 2021 SCC 17*. April 23, 2021.

In reviewing each factor, I have discussed current practices and the availability of new information with the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD) Selkirk Natural Resource District (District) and Forest Analysis and Inventory Branch (FAIB) specialists.

projected timber supply

Results of the previous timber supply analysis (from the 2010 AAC determination), were reviewed in addition to currently available supporting information. The base case timber supply forecast projected a harvest rate of 513 000 cubic metres per year that is sustained over the entire 250-year time horizon. I note that this forecast, which accounted for growth, losses, and depletions; indicates the current AAC can be sustained indefinitely with sufficient growing stock to maintain short-term timber supply.

With regards to the inventory information that was used in the analysis, FAIB staff indicated that the natural stand yield volumes in the next timber supply review (TSR) would likely result in an initial harvest level that is four percent higher. This is due to the discontinuation of the inventory data management practice of attribute adjustment.

occupant licence to cut

Occupant licence to cut (OLTC) are tenures that do not require forest management, and in effect, represent a drawdown of TSA land base productivity. Although the annual impact may be small, over decades, these land base reductions have the potential to become significant. The estimated annual impact of OLTCs for the Golden TSA was 242 hectares of productive forest. Although the impact is considered negligible for the purpose of this decision, I encourage district staff to continue to monitor the impact of the volumes associated with OLTCs to improve estimates for the next TSR.

unharvested and uncommitted volume

The district informs me that approximately 1 142 278 cubic metres of unharvested and uncommitted volume has accrued during the period 2006 to 2019. Of this unused volume, approximately 237 752 cubic metres (one percent of the growing stock supporting the current AAC), have disposition plans that are yet to be finalized. The base case forecast is predicated on the condition of the forest that includes the amount of merchantable timber growing stock present as of the date of the timber supply analysis. Therefore, any volume harvested (including unharvested and uncommitted volume) that is in addition to the AAC constitutes use of growing stock at a greater rate than projected in the base case, if the AAC is fully utilized. I recognize that there is little risk of this occurring in the Golden TSA, however, postponing my AAC decision would allow additional time to finalize the disposition plans for this volume and inform me how much of the accumulated undercut volume will be awarded during the next determination period.

harvest performance

Since 1999, the median harvest performance level in the Golden TSA has been approximately 400 000 cubic metres per year, or 18 percent below the current AAC of 485 000 cubic metres, reducing the risk of postponing the AAC determination.

Harvesting timber in the northern landscape units (LUs) of the Golden TSA is marginally economical due to their remote location, steep slopes, and unfavourable wood quality. A review of harvest performance by slope class for the period 2015 to 2021, indicated a preference for harvesting on slopes with less than 50 percent gradient. In order to examine the impact of only harvesting on steep slopes less than 50 percent, a sensitivity analysis was conducted that removed all of the northern LUs. It resulted in a five percent decrease in timber supply. However, removing only a portion of the northern LUs did not impact the short-term timber supply. District staff advised that some active harvesting has occurred in the northern portion of the TSA.

Concerns from the public were expressed regarding harvest performance in the northern LUs. I acknowledge this concern and note that it is important that the current operational harvest profile align with the profile modelled in the base case. Underperformance in steep slopes could reflect that the timber harvesting land base (THLB) modelled in the base case is operationally unattainable resulting in an overestimation in base case timber supply. I expect that prior to the next determination, district and licensee staff will review and revise the economic operability mapping considering current practice (this likely includes validation and/or updating the terrain stability mapping for the TSA). I expect district staff to monitor steep slope harvest and report this information to the Director of FAIB annually. Depending on licensee performance, I may consider establishing an AAC partition attributed to steep slopes in the next TSR. An implementation instruction regarding this factor was noted previously in the *Golden Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination* (Effective June 3, 2010) which I expect will continue to be fulfilled.

partial harvesting systems

Concerns were expressed by the public regarding the need for increased partial harvesting systems to manage for wildlife and interior Douglas-fir stands. I acknowledge this concern and note that although partial harvesting is not a widely used silvicultural system in the Golden TSA, work is underway to establish a new ungulate winter range (UWR 4-002) for mountain goat, and the area of interior Douglas-fir stands that is harvested *versus* planted is being monitored to ensure a sustainable timber supply.

visual quality objectives

Within the Golden TSA, there are 56 233 hectares within established visual quality objective (EVQO) polygons, of which 21 219 hectares are within the THLB. For the period 2010 to 2019, 1883 hectares were harvested within EVQO polygons. Since 2007, there have been 16 Forest and Range Evaluation Program (FREP) assessments completed to evaluate if visual quality objectives were achieved. Of the 16 samples, half were considered borderline or not meeting the objectives for visual quality. Based on this information, district staff advise this represents an unquantified overestimate in the base case timber supply.

In light of information suggesting that visual quality objectives are not being met, as summarized under '**Implementation**', I expect Ministry staff to work with licensees to collect additional FREP samples to verify the impact to timber supply. I also encourage the licensee to employ best management practices to ensure VQOs are met.

land base classification

Since the last AAC determination for the Golden TSA, changes that have occurred to the land base, forest management practices, and information include:

- *Kicking Horse Mountain Resort expansion* – in 2017, Kicking Horse Mountain Resort expanded its controlled recreation area, which overlapped 410 hectares of THLB. This represents a 0.25 percent overestimate in base case timber supply.
- *Forest health and non-recoverable losses* – non-recoverable losses attributed to fire, spruce beetle, and Douglas-fir beetle have increased. The impact is a 2.7 percent overestimate in base case timber supply.
- *Roads and permanently disturbed areas* – in support of a cumulative effects analysis (2020), the road buffer mapping was improved, and combined with powerline and railway buffers. The impact of the updated data is an overestimate in base case timber supply of 0.4 percent.

Concerns from the public were expressed regarding the THLB not being representative of operational reality, current management, and other constraints such as wildfire and wildlife. I acknowledge this concern and note that Ministry staff are monitoring changes to the land base, forest practices, and information that would impact a sustainable timber supply. In the event that these changes significantly affect timber supply, I am prepared to revisit the AAC determination earlier than set in this decision.

caribou habitat

Concerns from the public were expressed regarding effective management of caribou in the northern LUs. I acknowledge this concern and note that there are two active caribou herd territories within the Golden TSA that are managed under GAR orders: U-3-005 and U-4-010. Work is underway to identify management actions that will support the recovery and maintenance of caribou herds in the TSA. Postponing my AAC determination would potentially allow additional time for this work to be completed and time needed to implement these measures and quantify any impacts to timber supply.

landscape-level biodiversity

Mature- and old-seral forest retention are an important aspect of landscape-level biodiversity. In the Golden TSA, biodiversity emphasis options (BEO) and requirements for old and mature forest retention have been legally established and are specified in the Kootenay Boundary Higher Level Plan Order (KBHLPO). In low BEO landscape units, the KBHLPO allows for old-seral stage requirements to be reduced to one-third of the required target, but the full target must be met by the end of the third rotation (a rotation being defined as 80 years). In the previous analysis, the impact of the increased targets for the second and third rotations (81 to 160 years; and 161+ years respectively) were modelled by applying additional seral retention constraints. Given the importance of achieving the targets specified in the higher-level plan, for the next TSR, I request that the analysis include an assessment of the potential impact of meeting full targets immediately in all low BEO landscape units.

In the Golden TSA, old growth management areas (OGMAs) are spatially identified but are not legally established. Consequently, licensees may harvest within them where the circumstances are consistent with those listed in their forest stewardship plans. Where harvesting occurs, the OGMA area must be replaced with an equivalent area, that is similar in size and stand attributes. In the timber supply analysis, OGMAs were modelled as 'no harvest' zones that were excluded from the THLB.

Concerns were expressed by the public regarding biodiversity and cumulative effects. The Ktunaxa Nation Council (KNC) have also indicated that old growth management is a priority issue, and they would like OGMAs to be legally established. They are concerned that the targets for the amount of old growth to be retained in landscape units are too low and consequently there is a risk to those wildlife species that rely on them for habitat. These targets are of particular concern in lower elevations where the majority of harvesting takes place and where the creation of dams along the Columbia River flooded large areas of previously forested areas. The KNC note that the targets for old and mature forests do not reflect the natural range of variation as they are based on calculations that evaluated the current land base and did not consider the previously forested areas.

On July 17, 2019, the BC government appointed an independent panel to undertake a province-wide, Old Growth Strategic Review. The resultant report entitled, *A New Future for Old Forests: A Strategic Review of How British Columbia Manages for Old Forests Within its Ancient Ecosystems* was submitted to the Minister on April 30, 2020. The BC government is

implementing key recommendations from the report as part of its old growth strategy that will include the establishment of new old growth management requirements and strengthen existing requirements.

With respect to the appropriateness and efficacy of the existing seral stage requirements, I do not have the authority to alter existing or establish new legal requirements. However, I understand that the Kootenay Boundary Natural Resource Region has initiated a process to consider options for improving old growth management in the region and that First Nations will be engaged prior to any decisions being made on how to proceed. This will provide a venue for more detailed discussion on old growth targets and options for improved management. Changes in old growth management that result from this process or government's old growth strategy will be reflected in subsequent TSRs. In the event that these changes may significantly affect timber supply, I am prepared to revisit the AAC determination earlier than set in this decision.

biogeoclimatic ecosystem mapping

Biogeoclimatic Ecosystem Mapping and Site Classification (BEC) is used to classify and manage sites on an ecosystem-specific basis. Version 6 was in place at the time of the last TSR. Currently, Version 12 was released in 2021. This version improves the data accuracy and precision for the Kootenay Boundary Region. As summarized in '**Implementation**', I expect the district to work with FAIB staff to apply updated BEC information to determine the current state and spatial allocation of OGMA's, and reduce the uncertainties associated with the amount of old growth in relation to targets set in the KBHLPO.

wildfire

Wildfire reporting for the 2021 fire season indicated that 0.2 percent of the total volume within the forest management land base of the Golden TSA has been affected by wildfires. As fire is not a major disturbance agent, the risk of postponing the AAC determination is low.

climate change

Concerns by the public were expressed that climate change will increase fire frequency. I acknowledge this concern and expect that the next TSR will include information for my consideration, that ensures the next AAC determination aligns with the direction provided by the Ministry's Climate Change Strategy. Preliminary climate change information (using climate trend data) and associated mitigative/adaptation options have been prepared by regional research climatologists (with input from regional hydrology, fire, ecology, entomology, pathology, geomorphology and silviculture specialists). Postponing the AAC determination would allow further time for this work to be finalized and incorporated in the next TSR.

public comments

Although no formal public review was conducted regarding the *Forest Act* Section 8 (3.1) postponement, public input was received expressing concerns that an AAC postponement is inappropriate due to changes to a number of factors that would significantly impact the AAC including: steep slopes, silviculture management regimes, roads and permanently disturbed areas, environmentally sensitive areas and unstable slopes, visually sensitive areas, reduced

THLB, goat ungulate winter range protections, unsalvaged losses, economic and social viability of northern landscape units, cutblock adjacency, and forest cover and green-up.

A response letter was sent by FAIB along with the decision support material that was developed for each of the above factors. A meeting was also arranged that included FAIB, district and regional staff to review and discuss the material.

First Nations Consultation and Collaborative Engagement

Recently, British Columbia (BC) created a framework for advancing reconciliation with Indigenous Peoples, in keeping with the Calls to Action of the Truth and Reconciliation Commission. The provincial government passed legislation in November of 2019 to implement the United Nations Declaration on the Rights of Indigenous People (UNDRIP). BC's *Declaration on the Rights of Indigenous Peoples Act (Declaration Act)*, aims to create a clear process by which Indigenous Peoples are a part of the decisions that affect them, their communities, and their territories. As such, First Nations Interests are an important consideration in making decisions related to timber supply.

First Nations with asserted Traditional Territory overlapping the Golden TSA include: Ktunaxa Nation Council, Shuswap Indian Band, Adams Lake Indian Band, Splots'in First Nation, Little Shuswap Lake Band, Simpcw First Nation, Neskonlith Indian Band, Okanagan Nation Alliance, Lower Similkameen Indian Band, Penticton Indian Band, Upper Nicola Band, and Okanagan Indian Band.

Consultation was not undertaken with the Sinixt as they were not recognized as an Aboriginal Peoples of Canada when consultation on this postponement took place.

Early engagement with First Nations regarding the AAC postponement decision process was initiated in late November 2019. It included a referral letter and information summary that was sent to the First Nations listed above. Information sessions were also held at Shuswap Indian Band and Ktunaxa Nation Council (KNC) offices in January 2020.

In April 2020, Ktunaxa requested to become a more active participant in the TSR process (including this postponement decision) in a manner consistent with the *Declaration Act*. In response to this request, a joint technical committee was established to provide regular communication regarding all ongoing TSRs in the Kootenay Boundary Region.

Ministry staff completed a preliminary assessment and informed the First Nations groups listed above of the proposed postponement on February 17, 2021. The technical summary document prepared to support my postponement decision was attached for their review.

Shuswap Indian Band

On March 30, 2021, Shuswap Indian Band requested that the engagement package be resubmitted to them, additionally they were provided an extension for review and comments until April 19, 2021.

On April 16, 2021, Shuswap Indian Band responded with a number of concerns regarding the loss of economic and socio-economic opportunities that would result from an AAC postponement and expressed a desire to become a more active participant in the TSR process.

On June 8, 2021, a meeting between the Shuswap Indian Band and Ministry staff took place as a part of the Columbia Basin Campfire Forestry Technical Working Group Table.

An understanding between the parties concluded that a postponement decision would not hinder the Shuswap Indian Band's ability to access harvestable timber or finalize their Community Forest Agreement. They were made aware of volume (tenure) opportunities outside of the apportionment process and they indicated they would like to be informed of those processes.

Simpcw First Nation

The Simpcw First Nations confirmed receipt of the referral package on February 17, 2021, and no further comments were received.

Splats'in First Nation

On May 13, 2021, Splats'in First Nation acknowledged the receipt of the referral package and requested to remain informed and engaged in the Golden TSA AAC postponement decision.

In reviewing the First Nations consultation process with district staff, I conclude that the First Nations whose territories overlap the Golden TSA were consulted in accordance with current provincial guidance. I am satisfied that consultations have been carried out in good faith and the Crown's process of seeking to understand potentially outstanding issues and impacts was reasonable.

In view of historic and current levels of harvesting activities, I conclude that postponement of the AAC determination and hence maintenance of the AAC at its current level, represents low risk to the timber supply of the TSA. Further to this, postponing my AAC determination would allow additional time for collaborative engagement to improve the information and analyses associated with First Nations values and Interests.

Postponement Decision

From my review of the factors from Section 8 of the *Forest Act*, the available supporting information, and results of the previous timber supply analysis, I conclude that the harvest level equivalent to the current AAC of 485 000 cubic metres is consistent with and supports sustainable forest management, with no appreciable impact to long-term timber supply.

In reviewing the modelling assumptions and methods, I found no major errors or uncertainties with respect to the modelled land base or projected management practices. In reviewing changes to the land base, forest management practices, and recent harvest performance, I have determined that the AAC for the Golden TSA, set on June 3, 2010, would not likely change significantly with a new determination at this time. Where I have identified improvements that can be made to the information applied in the next TSR, I have specified an implementation instruction.

I have decided that the timber supply for the Golden TSA is stable, and the AAC would not likely change significantly with a new determination made at this time. I note that a

postponement of the next determination will allow more time for collaborative engagement with First Nations; to verify, and where possible, improve information regarding: harvest performance in steep slopes, forest health and non-recoverable losses, old growth, UWR, and caribou management regimes.

Therefore, under my authority as outlined in Section 8(3.1) of the *Forest Act*, I hereby postpone the next AAC determination to a date on or before June 10, 2023, which is 13 years after the effective date of the last determination. If additional new information becomes available and/or significant changes in forest management occur that may have a significant effect on timber supply, I am prepared to revisit the Golden TSA AAC determination at an earlier date.

Implementation

In the period following this decision and during the postponement period, I expect Ministry staff to work with First Nations and licensees to undertake the following tasks:

1. *Old growth management areas* – I expect the District to work with FAIB staff to apply updated BEC information to determine the current state of OGMA's and the amount of old growth (aspatial) in relation to targets set in the KBHLPO.
2. *Visual quality objectives* – I expect additional FREP samples to be collected to estimate the impact to timber supply and the District to ensure visual quality objectives are being met.

It is my expectation that the implementation instructions included in the *Golden Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination* (Effective June 3, 2010) will also continue to be implemented.



Diane Nicholls, RPF
Chief Forester



November 18, 2021